

**APPENDIX C1  
CHEMICAL COMPATIBILITY ANALYSIS  
OF WASTE FORMS AND CONTAINER MATERIALS**





## APPENDIX C1 CHEMICAL COMPATIBILITY ANALYSIS OF WASTE FORMS AND CONTAINER MATERIALS

The chemical compatibility analysis was carried out with all defense generated, contact-handled (CH) and remote-handled (RH) transuranic (TRU)-mixed waste streams reported in the Waste Isolation Pilot Plant (WIPP) Transuranic Waste Baseline Inventory Report (WTWBIR) (DOE, 1995). A summary of these waste streams is given in Table C-1 (Chapter C). The reported content of CH and RH streams will be verified through the WIPP Generator/Storage Site Waste Screening and Acceptance Audit Program (Appendix C11).

All information for the chemical lists and compatibility study is maintained in databases on a personal computer. The chemicals reported by the generator sites are classified into reaction groups as defined by the U.S. Environmental Protection Agency (EPA) document, A Method for Determining the Compatibility of Hazardous Wastes (Hatayama et al., 1980). The chemical lists are derived from the TRUPACT-II database, EPA hazardous waste codes listed in the WTWBIR, and waste descriptions.

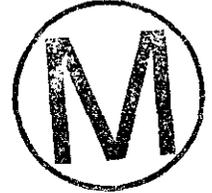
A database program was developed to evaluate the chemical compatibility of the WTWBIR waste streams. Potential incompatibilities are defined on Figure 6 of the EPA document (Hatayama et al., 1980), which identifies combinations of chemical groups that are incompatible and the consequences (e.g., heat generation) of mixing incompatible chemical groups. All incompatible mixtures have been entered into a reference data base to be used in assessing the chemical compatibility of a given list of chemicals. The logic of the program used in evaluating the chemical compatibility by content code is described in detail below.

As an initial step, the program indexes the entire database according to the WTWBIR waste stream codes. The program then locates the first reaction group within the first waste stream code and picks the highest concentration of any chemical in that group. The selected reaction group is then paired with every other reaction group in the waste stream to check for incompatibility. If a potential incompatibility is found, it is printed out along with the corresponding waste stream codes. After finding all potential incompatibilities for a given waste stream code, the program moves on to the next waste stream code until all waste stream codes have been processed.

To ensure accuracy, the reference database was printed and checked against the EPA document for chemical compatibility, and the WTWBIR waste stream database was printed and checked against the original WTWBIR forms from the generator sites. The list of potential chemical incompatibilities reported by the program was hand checked using the EPA document as a reference to assure proper functioning of the program. All potential chemical incompatibilities were then evaluated on a case-by-case basis to identify which, if any, of the reactions could occur, given the nature of the waste, and the its chemical constituents, and final waste form.

1 Waste streams are classified as "incompatible" if the potential exists for any of the following  
2 reactions:

- 3 • corrosion
- 4 • explosion
- 5 • heat generation
- 6 • gas generation (flammable gases)
- 7 • pressure build-up (nonflammable gases)
- 8 • toxic by-product generation



9 Each generator and storage site has produced a comprehensive list of all possible chemicals  
10 present in its waste. The chemical components found in each waste generation process are  
11 determined by examination of the process technology, by chemical analysis, or by process flow  
12 analysis. Under this system, all chemical inputs into the system are accounted for, even though  
13 all of these components may not be a part of the waste. For example, generator sites might  
14 include both acids and bases in their lists, even though the two groups have been neutralized  
15 prior to placement in a waste container.

16 In addition to the chemicals listed in Appendix 2 of the EPA document (Hatayama et al., 1980),  
17 the following components that exhibit toxicity characteristics defined under 40 CFR §261.24 were  
18 added to the chemical list in trace (<1 weight percent) quantities:

19 Group 3 Acids, Organic

- 20 2,4-D
- 21 2,4,5-TP (Silvex)

22 Group 17 Halogenated Organics

- 23 Methoxychlor
- 24 Toxaphene
- 25 2,4-D
- 26 Hexachlorobutadiene
- 27 Hexachloroethane
- 28 Tetrachloroethylene
- 29 2,4,5-Trichlorophenol
- 30 2,4,6-Trichlorophenol

31 All hazardous constituents listed in the Part A Permit are present in the chemical lists and  
32 accounted for in the compatibility analysis.

33 The compounds listed on the Material Safety Data Sheet for Radiac™ wash were added to the  
34 chemical compatibility assessment. The reactive compounds associated with Radiac™ wash  
35 are:

| <u>GROUP</u> | <u>COMPOUND</u> | <u>CONCENTRATION</u> |   |
|--------------|-----------------|----------------------|---|
| 3            | citric acid     | M                    | 1 |
| 106          | water           | D                    | 2 |

The compounds found in the fire suppressants in use at the WIPP facility were added to evaluate chemical compatibility of these materials with the test wastes. The following reactive compounds were added:

| <u>GROUP</u> | <u>COMPOUND</u>                   | <u>CONCENTRATION</u> |   |
|--------------|-----------------------------------|----------------------|---|
| 14           | diethylene glycol monobutyl ether | D                    | 3 |
| 15           | fluorosurfactants                 | D                    | 4 |
| 106          | water                             | D                    | 5 |

Ansulite 6 percent AFFF (AFC-3) contains diethylene glycol monobutyl ether, fluorosurfactants, and water. The FORAY Dry Chemical Extinguishing Agent contains potassium aluminum silicate, magnesium aluminum silicate, monoammonium phosphate, ammonium sulfate, and methyl hydrogen polysiloxane, which are not hazardous reactive constituents.

To account for packaging, container, and backfill materials, the following components were added to the database for each content code in dominant (>10 weight %) quantities:

- Group 10 Caustics 17
  - Magnesium Oxide 18
- Group 23 Metals, other elemental and alloys as sheets, rods, moldings, drops, etc. 19
  - Low Carbon Steel D 20
- Group 101 Combustible Materials 21
  - Polyethylene D 22

The chemical concentration levels are reported as either Trace (T) (<1% by weight), Minor (M) (1-10%), or Dominant (D) (>10%). The chemical list is divided into groups based on chemical properties and structure (e.g., acids, caustics, metals, etc.). If incompatible groups are combined, the possibility exists for the reactions listed above. For example, a reaction between Group 1 (Acids, Mineral, Non-oxidizing) and Group 10 (Caustics) could result in heat generation.

Possible chemical incompatibilities between compounds present in trace quantities (<1 percent by weight) and compounds present in concentrations  $\geq$  1 percent by weight (i.e., D x T, D x T1, D x T2, D x T3, M x T, M x T1, M x T2, or M x T3) are included in this report. However, interactions between compounds present in trace quantities (<1 percent by weight) and compounds present in concentrations  $\leq$  1 percent by weight do not pose an incompatibility problem for the following reasons:





- 1       • The trace chemicals reported by the sites are in concentrations well below the trace  
2       limit of 1 weight percent. Sampling programs show that the concentration levels of  
3       these compounds are significantly lower than the upper limit of 1 percent.
  
- 4       • The trace chemicals are usually dispersed in the waste, which further dilutes  
5       concentrations of these materials.
  
- 6       • Trace chemicals that might be incompatible with major and dominant  
7       materials/chemicals would have reacted during the waste treatment process prior to  
8       placement in waste containers.
  
- 9       • Because of restrictions imposed by the EPA on reporting of hazardous wastes, some  
10       chemicals are listed in trace quantities even if they have already reacted. Hazardous  
11       waste regulations as promulgated by the EPA (EPA, 1988) (known as the mixture rule)  
12       require that a mixture of any solid waste and a hazardous waste listed in 40 CFR Part  
13       261, Subpart D, be considered a hazardous waste subject to Resource Conservation  
14       and Recovery Act regulations. However, Subpart D does not list minimum  
15       concentrations for these listed wastes, with the result that any such mixtures must be  
16       considered hazardous waste even if the Subpart D constituent is at or below detection  
17       limits.
  
- 18       • The waste is either solidified and immobilized (solidified materials) or present in bulk  
19       form as a solid (solid materials). In almost all cases, any possible reactions take place  
20       before the waste is generated in its final form.
  
- 21       • Total trace chemicals within a payload container are limited to less than 5 weight  
22       percent.

23 All potential incompatibilities between trace, minor, and dominant compounds have been  
24 analyzed on a case-by-case basis for each waste stream reported in Table C-2 (Chapter C).  
25 Some chemicals listed as being present in the waste have reacted prior to placement in a waste  
26 container. For example, a site listing a caustic (Group 10) and an acid (Group 1) in its waste  
27 has only the neutralized product present in an immobilized form. Further reactions of this type  
28 do not occur once the waste is neutralized in its final form. An additional constraint on the  
29 chemicals and materials that can be present within each waste stream code is their gas  
30 generation potential due to radiolysis.

31 Unresolved incompatibilities between trace and minor, trace and dominant, minor and dominant,  
32 minor and minor, or dominant and dominant waste constituents were identified and segregated.  
33 These wastes cannot be transported until the incompatibilities are resolved (NuPac, 1989).  
34 Table C1-1 presents the chemical compatibility analysis for the modified chemical lists for the



waste streams presented in Table C-2 (Chapter C). A list of explanations describing any noted incompatibilities precedes Table C1-1.

### Summary of Potential Incompatibilities for Waste Forms and Container Material

The following is a listing and explanation of compatibility code numbers used to identify potential incompatibilities in Table C1-1. Where incompatibilities are noted, it is important to remember that these potential incompatibilities will be removed prior to shipment of the waste to WIPP. That is, unacceptable waste properties listed in Chapter C, Section C1-b will be removed prior to shipping. Verification of the compatibility of final waste forms will be carried out by the WIPP Generator/Storage Site Waste Screening and Acceptance Audit Program (Appendix C8).

#### Explanation Code Number Descriptions

- 00 (1 x 10, 2 x 10, 3 x 10, 5 x 10, 10 x 13, 10 x 17, 10 x 18, 10 x 19, 10 x 21, 10 x 22, 10 x 23, 10 x 24, 10 x 25, 10 x 27, 10 x 32, 10 x 102, 10 x 107) These potential incompatibilities result from the addition of magnesium oxide backfill material. However, the hydration of magnesium oxide results in the formation of brucite ( $Mg[OH]_2$ ), which buffers the pH of the solution at approximately 8.5. Therefore, caustic conditions are not produced by the use of magnesium oxide backfill.
- 0a. (1 x 4) The potential chemical incompatibility is the possible dehydration or displacement reactions between non-oxidizing mineral acids (Group 1) and alcohols and glycols in waste forms (Group 4) resulting in heat generation. The potential chemical incompatibility results from reporting trace quantities (<1%) of non-oxidizing acid in generator waste streams. However, the non-oxidizing mineral acids are neutralized prior to packaging, and the materials in this waste stream are considered chemically compatible.
- 0aa. (1 x 10) The potential chemical incompatibility is the possible acid-base reaction between strong mineral acids (Group 1) and strong caustics (Group 10) resulting in heat generation. The potential chemical incompatibility results from reporting trace quantities (<1%) of non-oxidizing acid in generator waste streams. However, the non-oxidizing mineral acids are neutralized prior to packaging, and the materials in this waste stream are considered chemically compatible.
- 0aaa. (1 x 14) The potential chemical incompatibility is the possible hydrolysis reaction between strong mineral acids (Group 1) and ethers (Group 14), resulting in heat generation. The potential chemical incompatibility results from reporting trace quantities (<1%) of non-oxidizing acid in generator waste streams. However, the non-oxidizing mineral acids are neutralized prior to packaging, and the materials in this waste stream are considered chemically compatible.

- 1 Oaaaa. (1 x 15) The potential chemical incompatibility is the possible formation of hydrogen  
2 fluoride when strong mineral acids (Group 1) mix with inorganic fluorides (Group 15),  
3 resulting in toxic gas generation. The potential chemical incompatibility results from  
4 reporting trace quantities (<1%) of non-oxidizing acid in generator waste streams.  
5 However, the non-oxidizing mineral acids are neutralized prior to packaging, and the  
6 materials in this waste stream are considered chemically compatible.
- 7 Ob. (1 x 17) The potential chemical incompatibility is the possible reaction between strong  
8 mineral acids (Group 1) and halogenated organics (Group 17), resulting in generation  
9 of heat and toxic hydrogen halide fumes. The potential chemical incompatibility results  
10 from reporting trace quantities (<1%) of non-oxidizing acid in generator waste streams.  
11 However, the non-oxidizing mineral acids are neutralized prior to packaging, and the  
12 materials in this waste stream are considered chemically compatible.
- 13 Obb. (1 x 19) The potential chemical incompatibility is the possible condensation reaction  
14 between strong mineral acids (Group 1) and ketones (Group 19), resulting in generation  
15 of heat. The potential chemical incompatibility results from reporting trace quantities  
16 (<1%) of non-oxidizing acid in generator waste streams. However, the non-oxidizing  
17 mineral acids are neutralized prior to packaging, and the materials in this waste stream  
18 are considered chemically compatible.
- 19 1. (1 x 23) The potential chemical incompatibility is the possible reaction between non-  
20 oxidizing mineral acids (Group 1) and metals and other elemental alloys as sheets, rods,  
21 moldings, drops, etc. (Group 23). The non-oxidizing mineral acids are present only in  
22 trace quantities (<1%) and are neutralized and bound in the cemented waste form. Due  
23 to the immobilization and prior reaction of the acids, the materials in this waste stream  
24 are considered chemically compatible.
- 25 2. (1 x 24) The potential chemical incompatibility is the tendency of non-oxidizing mineral  
26 acids (Group 1) to solubilize toxic metals and metal compounds (Group 24). The  
27 mineral acids are present only in trace quantities (<1%) and are neutralized and bound  
28 in the cemented waste form. Due to the immobilization and prior reaction of the non-  
29 oxidizing acids, the materials in this waste stream are considered chemically compatible.
- 30 3. (1 x 101) The potential chemical incompatibility is the possible reaction between non-  
31 oxidizing mineral acids (Group 1) and combustible materials (Group 101). The mineral  
32 acids are present only in trace quantities (<1%) and are neutralized and bound in the  
33 cemented waste form. An absorbent has been added to immobilize free liquids. Due  
34 to the immobilization and prior reaction of the non-oxidizing acids, the materials in this  
35 waste stream are considered chemically compatible.



- 3a. (1 x 102) The potential chemical incompatibility is the possible violent reaction between non-oxidizing mineral acids (Group 1) and explosives (Group 102). However, explosives are not allowed to be shipped to WIPP unless treatment renders them inert. Additionally, mineral acids are present only in trace quantities (<1%) and are neutralized prior to loading in waste containers. Therefore, the materials in this waste stream are considered chemically compatible.
- 3aa. (1 x 104) The potential chemical incompatibility is the possible reaction between non-oxidizing mineral acids (Group 1) and strong oxidizing agents (Group 104), resulting in heat and generation of toxic and corrosive gases. However, the mineral acids and oxidizing agents are present in trace quantities (<1%) and neutralized prior to loading in waste containers. Therefore, the materials in this waste stream are considered chemically compatible.
- 3b. (1 x 106) The potential chemical incompatibility is the possible reaction between mineral acids (Group 1) and water (Group 106), resulting in the generation of heat. This potential incompatibility results from the presence of water in Ansulite™ fire extinguishing agents and/or Radiac™ wash solutions and/or absorbed water. However, the mineral acids are present only in trace quantities (<1%) and are neutralized prior to loading in waste containers. In addition, the presence of any absorbed liquids are immobilized in an absorbent and would not be available for reaction.
- 3c. (2 x 3) The potential chemical incompatibility is the reaction of oxidizing mineral acids (Group 2) with organic acids (Group 3) resulting in heat and gas generation. The potential chemical incompatibility results from the use of citric acid in Radiac™ wash solutions. The solid citric acid is diluted during preparation of the Radiac™ wash and is often further diluted prior to use for decontamination. As a result, the potential for reactions of solid citric acid with oxidizing mineral acids in waste forms is removed.
- 3d. (2 x 4) The potential chemical incompatibility is the possible dehydration or displacement reactions between oxidizing mineral acids (Group 2) and alcohols and glycols (Group 4), resulting in heat generation. The potential chemical incompatibility results from reporting trace quantities (<1%) of oxidizing acid in generator waste streams. However, the oxidizing mineral acids are neutralized prior to packaging, and the materials in this waste stream are considered chemically compatible.
- 3e. (2 x 10) The potential chemical incompatibility is the possible acid-base reaction between oxidizing mineral acids (Group 2) and strong caustics (Group 10), resulting in heat generation. The potential chemical incompatibility results from reporting trace quantities (<1%) of oxidizing acid in generator waste streams. However, the oxidizing mineral acids are neutralized prior to packaging, and the materials in this waste stream are considered chemically compatible.



- 1 3ee. (2 x 13) The potential chemical incompatibility is the possible reaction between  
2 oxidizing mineral acids (Group 2) and esters (Group 13), resulting in heat generation.  
3 The potential chemical incompatibility results from reporting trace quantities (<1%) of  
4 oxidizing acid in generator waste streams. However, the oxidizing mineral acids are  
5 neutralized prior to packaging, and the materials in this waste stream are considered  
6 chemically compatible.
- 7 3f. (2 x 14) The potential chemical incompatibility is the possible hydrolysis reaction  
8 between oxidizing mineral acids (Group 2) and ethers (Group 14), resulting in heat  
9 generation. The potential chemical incompatibility results from reporting trace quantities  
10 (<1%) of oxidizing acid in generator waste streams. However, the oxidizing mineral  
11 acids are neutralized prior to packaging, and the materials in this waste stream are  
12 considered chemically compatible.
- 13 3g. (2 x 15) The potential chemical incompatibility is the possible formation of hydrogen  
14 fluoride when oxidizing mineral acids (Group 2) mix with inorganic fluorides (Group 15),  
15 resulting in toxic gas generation. The potential chemical incompatibility results from  
16 reporting trace quantities (<1%) of oxidizing acid in generator waste streams. However,  
17 the oxidizing mineral acids are neutralized prior to packaging, and the materials in this  
18 waste stream are considered chemically compatible.
- 19 3gg. (2 x 16) The potential chemical incompatibility is the possible reaction between oxidizing  
20 mineral acids (Group 2) and aromatic hydrocarbons (Group 16). Oxidation of the  
21 hydrocarbon may produce enough heat to ignite the mixture. The potential chemical  
22 incompatibility results from reporting trace quantities (<1%) of oxidizing acid in generator  
23 waste streams. However, the oxidizing mineral acids are neutralized prior to packaging,  
24 and the materials in this waste stream are considered chemically compatible.
- 25 3h. (2 x 17) The potential chemical incompatibility is the possible reaction between  
26 oxidizing mineral acids (Group 2) and halogenated organics (Group 17), resulting in  
27 generation of heat and toxic hydrogen halide fumes. The potential chemical  
28 incompatibility results from reporting trace quantities (<1%) of oxidizing acid in generator  
29 waste streams. However, the oxidizing mineral acids are neutralized prior to packaging,  
30 and the materials in this waste stream are considered chemically compatible.
- 31 3i. (2 x 19) The potential chemical incompatibility is the possible condensation reaction  
32 between oxidizing mineral acids (Group 2) and ketones (Group 19), resulting in  
33 generation of heat. The potential chemical incompatibility results from reporting trace  
34 quantities (<1%) of oxidizing acid in generator waste streams. However, the oxidizing  
35 mineral acids are neutralized prior to packaging, and the materials in this waste stream  
36 are considered chemically compatible.

- 3j. (2 x 20) The potential chemical incompatibility is the possible reaction between oxidizing mineral acids (Group 2) and mercaptans (Group 20), resulting in generation of heat and toxic hydrogen sulfide fumes. The potential chemical incompatibility results from reporting trace quantities (<1%) of oxidizing acid in generator waste streams. However, the oxidizing mineral acids are neutralized prior to packaging, and the materials in this waste stream are considered chemically compatible.
4. (2 x 23) The potential chemical incompatibility is the possible reaction between oxidizing mineral acids (Group 2) and metals and other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23). The oxidizing mineral acids are present only in trace quantities (<1%) and are reacted prior to loading in waste containers. In addition, the oxidizing mineral acids are fixed in the solidified product and would not be available to react with the metal.
5. (2 x 23) The potential chemical incompatibility is the possible reaction between oxidizing mineral acids (Group 2) and metals and other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23). The oxidizing mineral acids are present only in trace quantities (<1%) as residues on glass or rubber gloves, and not as free liquids that could react with metals.
6. (2 x 24) The potential chemical incompatibility is the solubilization of toxic metals and metal compounds (Group 24) in oxidizing mineral acids (Group 2). The oxidizing mineral acids are present only in trace quantities (<1%) and are reacted prior to loading in waste containers. In addition, the oxidizing mineral acids are fixed in the solidified product and would not be available to react with the metal.
7. (2 x 24) The potential chemical incompatibility is the possible reaction between oxidizing mineral acids (Group 2) and toxic metals and compounds (Group 24). The oxidizing mineral acids are present only in trace quantities (<1%) as residues on glass or rubber gloves, and not as free liquids that could react with metals.
- 7a. (2 x 27) The potential chemical incompatibility is the possible reaction between oxidizing mineral acids (Group 2) and nitro compounds (Group 27), resulting in generation of heat and toxic nitrogen oxide fumes. The potential chemical incompatibility results from reporting trace quantities (<1%) of oxidizing acid in generator waste streams. However, the oxidizing mineral acids are neutralized prior to packaging, and the materials in this waste stream are considered chemically compatible.
- (2 x 101) The potential chemical incompatibility is the possible reaction between oxidizing mineral acids (Group 2) and combustible materials (Group 101). The oxidizing mineral acids are present only in trace quantities (<1%) as residues on glass or rubber gloves, and not as free liquids that could react with metals.



- 1 9. (2 x 101) The potential chemical incompatibility is the possible decomposition of  
2 combustible materials (Group 101) by the oxidizing mineral acids (Group 2). The  
3 oxidizing mineral acids are present only in trace quantities (<1%) and are reacted prior  
4 to loading in waste containers. In addition, the oxidizing mineral acids are fixed in the  
5 solidified product and would not be available to react with the combustible materials.
- 6 9a. (2 x 102) The potential chemical incompatibility is the possible violent reaction between  
7 oxidizing mineral acids (Group 2) and explosives (Group 102). However, explosives are  
8 not allowed to be shipped to WIPP unless treatment renders them inert. Additionally,  
9 mineral acids are present only in trace quantities (<1%) and are neutralized prior to  
10 loading in waste containers. Therefore, the materials in this waste stream are  
11 considered chemically compatible.
- 12 10. (2 x 106) The potential chemical incompatibility is the possible dissolution of oxidizing  
13 mineral acids (Group 2) by water (Group 106). The oxidizing mineral acids are present  
14 only in trace quantities (<1%) and reacted prior to loading in waste containers. Both the  
15 water and the oxidizing mineral acids are fixed in the solidified product and would not  
16 be available for reaction.
- 17 10a. (2 x 106) *The potential chemical incompatibility is the possible reaction between*  
18 *oxidizing mineral acids (Group 2) and water (Group 106), resulting in the generation of*  
19 *heat. This potential incompatibility results from the presence of water in Ansulite™ fire*  
20 *extinguishing agents and/or Radiac™ wash solutions and/or absorbed water. However,*  
21 *the mineral acids are present only in trace quantities (<1%) and are neutralized prior to*  
22 *loading in waste containers. In addition, the presence of any absorbed liquids are*  
23 *immobilized in an absorbent and would not be available for reaction.*
- 24 11. (3 x 4) The potential chemical incompatibility is the possible reaction between organic  
25 acids (Group 3) and alcohols and glycols (Group 4). The organic acids are immobilized  
26 in a cement matrix and not available to react with the alcohols and glycols. The  
27 alcohols and glycols are also immobilized in the solidified product.
- 28 11aa. (3 x 4) The potential chemical incompatibility is the heat generated by polymerization  
29 of alcohols and glycols (Group 4) by organic acids (Group 3). *Carboxylic acids with  $\alpha$ -*  
30 *halogen substituents, or  $\alpha$ - or  $\beta$ -hydroxyl substituents (e.g., citric acid) are the main*  
31 *concern among the organic acids (Group 3). The potential chemical incompatibility*  
32 *results from the use of citric acid in Radiac™ wash solutions. The solid citric acid is*  
33 *diluted during preparation of the Radiac™ wash and is often further diluted prior to use*  
34 *for decontamination. As a result, the potential for reactions of solid citric acid with*  
35 *alcohols and glycols (Group 4) that are dispersed and fixed in waste forms is removed.*

- 11b. (3 x 10) The potential chemical incompatibility is the possibility of acid-base reactions. The organic acids (Group 3) are neutralized in a cement matrix and are not available to react with the Caustics (Group 10). Thus, this potential chemical incompatibility would not occur. 1 2 3 4
- 11c. (3 x 10) The potential chemical incompatibility is the heat generated by reactions of organic acids (Group 3) with caustics (Group 10). The potential chemical incompatibility results from the use of citric acid in Radiac™ wash solutions. The solid citric acid is diluted during preparation of the Radiac™ wash and is often further diluted prior to use for decontamination. As a result, the potential for reactions of solid citric acid with caustics in test waste forms is removed. The caustic in the waste forms is calcium oxide. Thus, the more significant incompatibility is potential hydrolysis reaction between water and calcium oxide to release heat. Because the calcium oxide is dispersed in the wastes, reaction is considered unlikely. 5 6 7 8 9 10 11 12 13
- 11d. (3 x 15) The potential chemical incompatibility is toxic and corrosive fumes generated by reactions of organic acids (Group 3) with metal fluoride salts (Group 15). The potential chemical incompatibility results from the use of citric acid in Radiac™ wash solutions. The solid citric acid is diluted during preparation of the Radiac™ wash and is often further diluted prior to use for decontamination. As a result, the potential for reactions of solid citric acid with fluoride salts in waste forms is removed. 14 15 16 17 18 19
12. (3 x 24) The potential chemical incompatibility is the possible reaction between organic acids (Group 3) and toxic metals and compounds (Group 24). The organic acids are basified prior to cementation and do not exist as free acids in the resulting product. Based on the immobilization of the acids, reactions are considered highly unlikely. In this case, solubilization is not possible. 20 21 22 23 24
- 12aa. (3 x 24) The potential chemical incompatibility is solubilization of toxic metals (Group 24) by complexation with organic acids (Group 3). The potential chemical incompatibility results from the use of citric acid in Radiac™ wash solutions. The solid citric acid is diluted during preparation of the Radiac™ wash and is often further diluted prior to use for decontamination. As a result, the potential for reactions of solid citric acid with toxic metals in waste forms is removed. 25 26 27 28 29 30
- 12bbb. (3 x 104) The potential chemical incompatibility is decomposition of the hydrocarbon moiety of organic acids (Group 3) by oxidizing agents (Group 104) resulting in heat and gas formation. The potential chemical incompatibility results from the use of citric acid in Radiac™ wash solutions. The solid citric acid is diluted during preparation of the Radiac™ wash and is often further diluted prior to use for decontamination. As a result, the potential for reactions of solid citric acid with oxidizing agents that are dispersed and fixed in waste forms is removed. 31 32 33 34 35 36 37

- 1 12bb. (4 x 104) The potential chemical incompatibility is formation of unstable compounds by  
2 reaction of alcohols and glycols (Group 4) with oxidizing agents (Group 104). However  
3 the alcohols and glycols are present as trace quantities (<1%) in the waste stream, and  
4 they are further isolated by dissemination within the waste stream. Additionally,  
5 oxidizing agents must be neutralized prior to shipment to WIPP. Therefore, the final  
6 waste form will contain compatible materials.
- 7 12b. (7 x 17) The potential chemical incompatibility between amines (Group 7) and  
8 halogenated organics (Group 17) would not occur because the halogenated organics  
9 are solidified and are not available for reaction.
- 10 12c. (7 x 24) The potential chemical incompatibility is the possible increase in the solubility  
11 of toxic metal compounds in water due to amines acting as potential surfactants. The  
12 amines are present only in trace (<1%) and are immobilized through absorption on  
13 sorbent materials. Also, these solid waste forms usually contain very little water and  
14 excess sorbents are added to waste containers to sorb any fluids.
- 15 12d. (7 x 104) The potential chemical incompatibility is formation of toxic nitrogen oxide  
16 fumes by reaction of amines (Group 7) with oxidizing agents (Group 104). However, the  
17 alcohols and glycols are present as trace quantities (<1%) in the waste stream, they are  
18 further isolated by dissemination within the waste stream. Additionally, oxidizing agents  
19 must be neutralized prior to shipment to WIPP. Therefore, the final waste form will  
20 contain compatible materials.
- 21 12e. (8 x 23) The potential chemical incompatibility is combustion of some azo compounds  
22 (Group 8) on contact with surfaces of metal sheets, rods, drops, etc (Group 23).  
23 However the azo compounds are present as trace quantities (<1%) in the waste stream  
24 and are further isolated by dissemination within the waste stream. Therefore,  
25 spontaneous combustion by reaction with metal surfaces is unlikely.
- 26 12f. (8 x 106) The potential chemical incompatibility is the generation of nitrogen gas by  
27 reaction of some azo compounds (Group 8) with water (Group 106). This potential  
28 incompatibility results from the presence of water in Ansulite™ fire extinguishing agents  
29 and/or Radiac™ wash solutions and/or absorbed water. However, the azo compounds  
30 are present only in trace quantities (<1%) and are disseminated in the waste  
31 containers, which minimizes their potential to form nitrogen gas. In addition, the  
32 presence of any absorbed liquids are immobilized in an absorbent and would not be  
33 available for reaction.
- 34 13. (10 x 17) The potential chemical incompatibility is the possible reaction between  
35 caustics (Group 10) and halogenated organics (Group 17). The caustic in this content  
36 code is calcium oxide, a solid, which is dispersed in the chloride salts. The halogenated

- organics are present in only trace quantities ( $T < 1\%$ ) and are absorbed, immobilized, or solidified. Due to the immobilization of the calcium oxide in the salt, reactions are considered highly unlikely. 1  
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- 13a. (10 x 19) The potential chemical incompatibility is the possible self-condensation of ketones (Group 19) catalyzed by caustics (Group 10). The caustic in this content code is calcium oxide, a solid, which is dispersed in the chloride salts. Due to the immobilization of the calcium oxide in salt, reactions are considered highly unlikely. 4  
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14. (10 x 23) The potential incompatibility is the possible reaction between caustics (Group 10) metals and other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23). The caustic in this waste stream code is calcium oxide, a solid, which is dispersed in the chloride salts. Due to the immobilization of the calcium oxide in salt, dissolution of metals in caustics is not possible. 8  
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15. (10 x 23) The potential incompatibility is the possible dissolution of metals and other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23) in caustics (Group 10). The caustics are present only in trace quantities ( $< 1\%$ ) and are reacted prior to loading in waste containers. In addition, the caustics are fixed in the cemented sludge and would not be available to react with the metals. 13  
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16. (10 x 24) The potential chemical incompatibility is the possible solubilization of toxic metals (Group 24) in caustics (Group 10). The caustic in this content code is calcium oxide, a solid, which is dispersed in the chloride salts. In this case, solubilization is not possible. 18  
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- 16a. (10 x 24) The potential incompatibility is the possible solubility of toxic metals (Group 24) in caustics (Group 10). The caustics are present only in trace ( $< 1\%$ ) quantities and are reacted prior to loading in waste containers. In addition, the caustics are fixed in the cemented sludge and would not be available to react with the metals. 22  
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- 16b. (10 x 27) The potential chemical incompatibility is the formation of salts from nitro alkanes (Group 27) and caustics (Group 10) in the presence of water. The only caustic in this content code is calcium oxide, a solid, which is dispersed in the chloride salts. In addition, liquids are immobilized through absorption on sorbent materials. Due to the immobilization of the caustic in the fused salt, this reaction would not occur. 26  
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- 16c. (10 x 102) The potential chemical incompatibility is the possible violent reaction between caustics (Group 10) and explosives (Group 102) due to the generation of heat. However, explosives are not allowed to be shipped to WPP unless treatment renders them inert. Additionally, caustics are present only in minor quantities ( $< 10\%$ ) and are 31  
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- 1           neutralized prior to loading in waste containers. Therefore, the materials in this waste  
2           stream are considered chemically compatible.
- 3    17.       (10 x 107) This potential incompatibility is an artifact of the EPA method. Calcium  
4           oxide appears in Groups 10 and 107, and is compatible within itself.
- 5    17a.      (14 x 104) This potential incompatibility is the reaction of ethers (Group 14) with strong  
6           oxidizers (Group 104) to produce heat, and possibly ignition or explosions. This  
7           incompatibility arises from the presence of diethylene glycol monobutyl ether in  
8           Ansulite™ fire extinguishing agents. However, the strong oxidizers are present in trace  
9           quantities (<1%) and disseminated in the waste, making ignition or explosions unlikely  
10          in the event the fire extinguishers are used.
- 11   17b.      (14 x 107) This potential chemical incompatibility is the reaction of ethers (Group 14)  
12          with water reactives (Group 107). This incompatibility arises from the presence of  
13          diethylene glycol monobutyl ether in Ansulite™ fire extinguishing agents. However, the  
14          water reactive substances are present in trace quantities (<1%) and disseminated in the  
15          waste, making reactions unlikely in the event the fire extinguishers are used.
- 16   18.       (15 x 107) This potential chemical incompatibility is the reaction of fluorides (Group 15)  
17          and water reactive substances (Group 107). The solid fluorides are present in only  
18          trace quantities (T<1%) and form part of the pyrochemical salt matrix. Calcium oxide,  
19          the only water reactive substance present, is a solid dispersed in the pyrochemical salt  
20          matrix. These salts always occur with each other and are compatible.
- 21   18a.      (17 x 20) The potential chemical incompatibility is the possible reaction between  
22          halogenated organics (Group 17) and mercaptans (Group 20), resulting in generation  
23          of heat. The potential chemical incompatibility results from reporting trace quantities  
24          (<1%) of halogenated organics and mercaptans in generator waste streams. However,  
25          the chemicals are neutralized prior to packaging, and the materials in this waste stream  
26          are considered chemically compatible.
- 27   19.       (17 x 23) The potential chemical incompatibility is the reaction of halogenated organics  
28          (Group 17) with metals and other elemental alloys as sheets, rods, moldings, drops, etc.  
29          (Group 23). The halogenated organics are present in only trace quantities (T<1%) and  
30          are fixed in cemented sludge and would not be available to react with the metals.
- 31   20.       (17 x 23) The potential chemical incompatibility is the reaction of halogenated organics  
32          (Group 17) with metals and other elemental alloys, as sheets, rods, moldings, drops,  
33          etc. (Group 23). The halogenated organics are present in only trace quantities (T<1%)  
34          and are absorbed on combustibles. The halogenated organics are not present as free  
35          liquids to react with the metals.

21. (17 x 23) The potential chemical incompatibility is the potential reaction between halogenated organics (Group 17) and metals and other elemental alloys as sheets, rods, drops, moldings, etc. (Group 23). Aluminum and magnesium in bulk forms are especially reactive with halogenated hydrocarbons, releasing much heat. Although this is a potential incompatibility, the potential effects are considered minimal for the following reasons. First, the halogenated hydrocarbons are only present in trace quantities (<1 percent by weight) and are immobilized through absorption on sorbent materials or solidification with calcium silicates or gypsum-base processes. Second, although the metals of concern may occur in dominant quantities in the content code, the metals only occur as large pieces and not in powder form. Due to the trace quantities of immobilized halogenated organics and the non-powder size of the metal pieces, any reaction that may occur will produce minimal heat.
22. (17 x 23) The potential chemical incompatibility is the reaction of halogenated organics (Group 17) with metals and other elemental alloys, as sheets, rods, moldings, drops, etc. (Group 23). The halogenated organics are present in only very small trace quantities (<1 part per million) as residual films on the glass and not as free liquids that could react with metals.
23. (17 x 23) The potential chemical incompatibility is the reaction of halogenated organics (Group 17) with metals and other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23). The halogenated organics are present in only trace quantities (<1%) as coatings on solid organic materials and are not present as free liquids that could react with metals.
24. (17 x 23) The potential chemical incompatibility is the reaction of halogenated organics (Group 17) with metals and other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23). The halogenated organics are present in only trace quantities (<1%) as coating on the inorganic solid materials and are not present as free liquids that could react with metals.
25. (17 x 23) The potential chemical incompatibility is the reaction of halogenated organics (Group 17) with metals and other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23). The halogenated organics are fixed in the cemented product and would not be available for reaction.
26. (17 x 23) The potential chemical incompatibility is the reaction of halogenated organics (Group 17) with metals and other elemental alloys, as sheets, rods, moldings, drops, etc. (Group 23). The halogenated organics are fixed in the solidified product and are not available for reaction with the metals.

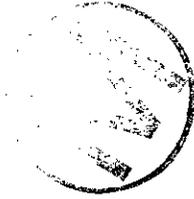


- 1 27. (17 x 23) The potential chemical incompatibility is the reaction of halogenated organics  
2 (Group 17) with metals and other elemental alloys, as sheets, rods, moldings, drops,  
3 etc. (Group 23). An absorbent has been added to immobilize any free liquids that may  
4 exist. Due to the trace quantities and immobilization of the halogenated organics,  
5 reactions are highly unlikely.
- 6 28. (17 x 104) The potential chemical incompatibility is the reaction of halogenated organics  
7 (Group 17) with oxidizing agents (Group 107), resulting in the liberation of heat and  
8 formation of toxic gases. The halogenated organics are present in only trace quantities  
9 (<1%) and are not in the form of free liquids. Additionally, the oxidizing agents are  
10 neutralized prior to loading waste containers. Therefore, based on the neutralization of  
11 the oxidizing agents, reactions are considered highly unlikely.
- 12 28a. (18 x 106) The potential incompatibility is the possible reaction between isocyanates  
13 (Group 18) with water (Group 106). The isocyanates are present only in trace quantities  
14 (<1%). The water is usually fixed in the solidified product and would not be available  
15 for reaction.
- 16 28aa. (18 x 106) The potential chemical incompatibility is between isocyanates (Group 18)  
17 and water (Group 106) to generate carbon dioxide gas and heat. The potential chemical  
18 incompatibility results from the use of water in Ansulite™ fire extinguishing agents and  
19 Radiac™ wash solutions. However, isocyanates in the waste forms are present in trace  
20 quantities (<1%), are neutralized and fixed prior to loading the waste containers, and are  
21 not available for reaction. Therefore, the final waste form contains compatible materials.
- 22 28aaa. (19 x 20) The potential chemical incompatibility is the reaction between ketones (Group  
23 19) and mercaptans (Group 20), resulting in heat generation. These chemicals are  
24 present only in trace quantities (<1%) as coatings on laboratory glassware. Therefore,  
25 contact between the chemicals, if it occurs, will be limited.
- 26 28b. (21 x 101) The potential chemical incompatibility is the reaction of alkali and alkaline  
27 earth metals (Group 21) with residual water present in the combustible materials (101),  
28 resulting in heat generation and ignition of the combustible materials. However, the  
29 combustible materials are polyethylene and polyvinyl chloride packaging materials which  
30 contain no residual water. Additionally, alkali and alkaline earth metals must be  
31 neutralized prior to shipment to WPP. Therefore, the final waste form will contain  
32 compatible materials.
- 33 28c. (21 x 104) The potential chemical incompatibility is the violent reaction between alkali  
34 and alkaline earth metals (Group 21) and oxidizing agents (Group 104). Oxidizing  
35 agents are present in trace quantities (<1%) and are neutralized prior to packaging

Additionally, alkali and alkaline earth metals must be neutralized prior to shipment to WPP. Therefore, the final waste form will contain compatible materials.

- 28d. (21 x 106) The potential chemical incompatibility is the violent reaction between alkali and alkaline earth metals (Group 21) and water (Group 106), resulting in the evolution of hydrogen gas and formation of strong caustics. However, alkali and alkaline earth metals must be neutralized prior to shipment to WPP. Therefore, the final waste form will contain compatible materials.
- 28e. (22 x 106) The potential chemical incompatibility is the reaction of metal powders (Group 22) with water (Group 106), resulting in the evolution of hydrogen gas and production of heat. Metal powders or shavings are present as trace quantities (<1%) on paper, rags, and rubber. This potential incompatibility results from the presence of water in Ansulite™ fire extinguishing agents and/or Radiac™ wash solutions and/or absorbed water. However, metal powders or shavings are present as trace quantities (<1%) on paper, rags, and rubber, which minimizes their potential to form hydrogen gas. In addition, the presence of any absorbed liquids are immobilized in an absorbent and would not be available for reaction.
29. (23 x 104) The potential incompatibility is the possible reaction between metals and other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23) and oxidizing agents (Group 104). The oxidizing agents are present only in trace quantities (<1%) and reacted prior to loading in waste containers. The waste is mixed with cement to absorb any residual liquid. Due to the immobilization and prior reaction of the oxidizing agents, reactions are highly unlikely.
30. (23 x 104) The potential incompatibility is the possible reaction between metals, other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23) and oxidizing agents (Group 104). The oxidizing agents are present only in trace quantities (<1%) and dissolved in aqueous solutions that were cemented into a solid monolith-type structure. Due to the immobilization and prior reaction of the oxidizing agents, reactions will not occur.
31. (23 x 107) The potential incompatibility is the possible reaction between metals and other elemental alloys, as sheets, rods, moldings, drops, etc. (Group 23) and water reactive substances (Group 107). The outer low carbon steel drum is the only Group 23 metal found in this content code. Calcium oxide, the only water reactive substance present, is a solid dispersed in the chloride salts. Based on the immobilization of the calcium oxide in the salt, reactions are considered highly unlikely.

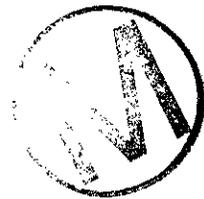




- 1 32. (23 x 107) The potential incompatibility is the possible reaction between metals and  
2 other elemental alloys as sheets, rods, moldings, drops, etc. (Group 23) and water  
3 reactive substances (Group 107). Calcium oxide, the only water reactive substance  
4 present, is a solid dispersed in the chloride salts. Based on the immobilization of the  
5 calcium oxide in the salt, reactions are considered highly unlikely.
- 6 33. (24 x 106) The potential chemical incompatibility is the possible solubilization of toxic  
7 metals (Group 24), which is not a concern since the water (Group 106) from the sludge  
8 is fixed in the cemented product and would not be available for reaction.
- 9 33a. (24 x 106) The potential chemical incompatibility is the possible solubilization of toxic  
10 metals (Group 24) by water (Group 106). This potential chemical incompatibility results  
11 from the use of water in Ansulite™ fire extinguishing agents or Radiac™ wash solutions.  
12 Metals in the test waste forms are present in trace quantities ( $T < 1\%$ ) as large pieces  
13 and not in powdered form. As a result, only minimal heat is expected to be formed.
- 14 34. (24 x 106) The potential incompatibility is the possible solubilization of toxic metals  
15 (Group 24). The water (Group 106) is fixed the in the cemented product and would not  
16 be available for reaction.
- 17 35. (24 x 107) The potential incompatibility is the possible reaction between toxic metals  
18 and metal compounds (Group 24) and water reactive substances (Group 107). The  
19 metals are present only in trace quantities ( $< 1\%$  by weight). Calcium oxide, the only  
20 water reactive substance present, is a solid dispersed in the chloride salts. Based on  
21 the immobilization of the calcium oxide in the salt, reactions are considered highly  
22 unlikely.
- 23 36. (24 x 107) The potential incompatibility is the possible reaction between toxic metals  
24 and metal compounds (Group 24) and water reactive substances (Group 107). Calcium  
25 oxide, the only water reactive substance present, is dispersed in chloride salts. Based  
26 on the immobilization of the calcium oxide in the salts, reactions are considered highly  
27 unlikely.
- 28 36a. (25 x 101) The potential chemical incompatibility is the reaction of nitrides (Group 25)  
29 with residual water present in the combustible materials (Group 101), resulting in  
30 formation of ammonia gas, heat generation, and possible ignition of the combustible  
31 materials. However, the combustible materials are polyethylene and polyvinyl chloride  
32 packaging materials which contain no residual water. Additionally, any reactive nitrides  
33 must be neutralized prior to shipment to WIPP. Therefore, the final waste form will  
34 contain compatible materials.

- 36aa. (25 x 106) The potential chemical incompatibility is the reaction of nitrides (Group 25) with water present in the combustible materials (101), resulting in formation of ammonia gas, heat generation, and possible ignition of the combustible materials. However, any reactive nitrides must be neutralized prior to shipment to WIPP. Therefore, the final waste form will contain compatible materials. 1  
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- 36b. (27 x 104) The potential incompatibility is the possible reaction between nitro compounds (Group 27) and oxidizing agents (Group 107). Calcium oxide, the only water reactive substance present, is dispersed in chloride salts. Reactive oxidizing agents must be neutralized prior to shipment to WIPP. Based on the immobilization of the calcium oxide in the salts and neutralization of oxidizing agents, reactions are considered highly unlikely. 6  
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- 36c. (29 x 104) The potential incompatibility is the possible reaction between saturated aliphatics (Group 29) and oxidizing agents (Group 104). However, reactive oxidizing agents must be neutralized prior to shipment to WIPP. Therefore, the final waste form will contain compatible materials. 12  
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- 36d. (101 x 102) The potential incompatibility is the possible oxidation reaction between combustibles (Group 101) and explosives (102). However, explosives must be reacted prior to shipment to WIPP. Therefore, the final waste form will contain compatible materials. 16  
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37. (101 x 104) The potential incompatibility is the possible reaction between combustible materials (Group 101) and oxidizing agents (Group 104). The oxidizing agents are present only in trace quantities (<1%) and are reacted prior to loading in waste containers. In addition, cement is added to absorb any residual liquid. Due to the immobilization and prior reaction of the oxidizing agents, this content code is considered to be chemically compatible. 20  
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38. (101 x 104) The potential incompatibility is the possible reaction between combustible materials (Group 101) and oxidizing agents (Group 104). The oxidizing agents are present only in trace quantities (<1%) and are fixed in the solidified product. Due to the immobilization and prior reaction of the oxidizing agents, this content code is considered to be chemically compatible. 26  
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39. (101 x 107) The potential incompatibility is the possible reaction between combustible and flammable materials (Group 101) and water reactive substances (Group 107). The dominant combustible material in Group 101 is the polyethylene rigid drum liner. Calcium oxide, the only water reactive substance present, is a solid dispersed in the chloride salts. Based on the immobilization of the calcium oxide in the salt, reactions are considered highly unlikely. 31  
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- 1 40. (102 x 104) The potential incompatibility is the possible violent reaction between  
2 explosives (Group 102) and oxidizing agents (Group 104). However, both of these  
3 groups must be neutralized before shipment to WIPP. Therefore, the final waste form  
4 will contain compatible materials.
- 5 41. (104 x 107) The potential incompatibility is the possible violent reaction between  
6 oxidizing agents (Group 104) and water reactives (Group 107). However, both of these  
7 groups must be neutralized before shipment to WIPP. Therefore, the final waste form  
8 will contain compatible materials.



**List of References for Appendix C1**

- Hatayama, H. K., J. J. Chen, E. R. de Vera, R. D. Stephens, and D. L. Storm, 1980, "A Method for Determining the Compatibility of Hazardous Wastes," EPA-600/2-80-076, U.S. Environmental Protection Agency, Cincinnati, Ohio. 2 3 4
- Nuclear Packaging, Inc. (NuPac), 1989, "Safety Analysis Report for the TRUPACT-II Shipping Package," Revision 4, Appendix 2.10.12, Nuclear Packaging, Inc., Federal Way, Washington. 5 6
- U.S. Department of Energy (DOE), 1989, "TRUPACT-II Content Codes" (TRUCON), Revision 3, DOE/WPP 89-004, U.S. Department of Energy, Carlsbad, New Mexico. 7 8
- U.S. Environmental Protection Agency (EPA), 1988, Code of Federal Regulations, Part 190 to 399, U.S. Government Printing Office, Washington, D.C. 9 10



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| COMBUSTIBLE             | IN W198                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| COMBUSTIBLE             | IN W198                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x T                         | GF H             | 00                         |
| COMBUSTIBLE             | IN W198                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| COMBUSTIBLE             | IN W198                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                        |
| COMBUSTIBLE             | IN W202                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| COMBUSTIBLE             | IN W202                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x T                         | GF H             | 00                         |
| COMBUSTIBLE             | IN W202                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| COMBUSTIBLE             | IN W202                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                        |
| COMBUSTIBLE             | IN W205                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |



x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| COMBUSTIBLE             | IN W205                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x T                         | GF H             | 00                        |
| COMBUSTIBLE             | IN W205                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| COMBUSTIBLE             | IN W205                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                       |
| COMBUSTIBLE             | IN W250                | AMINES, ALIPHATIC & AROMATIC x METALS & METAL COMPOUNDS, TOXIC<br><br>(7 x 24)                      | T x D                         | S                | 12c                       |
| COMBUSTIBLE             | IN W250                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| COMBUSTIBLE             | IN W250                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                        |
| COMBUSTIBLE             | IN W250                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                       |
| COMBUSTIBLE             | IN W252                | AMINES, ALIPHATIC & AROMATIC x METALS & METAL COMPOUNDS, TOXIC<br><br>(7 x 24)                      | T x D                         | S                | 12c                       |
| COMBUSTIBLE             | IN W252                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| COMBUSTIBLE             | IN W252                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                   |
| COMBUSTIBLE             | IN W252                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                  |
| COMBUSTIBLE             | IN W254                | AMINES, ALIPHATIC & AROMATIC x METALS & METAL COMPOUNDS, TOXIC<br><br>(7 x 24)                      | T x D                         | S                | 12c                  |
| COMBUSTIBLE             | IN W254                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| COMBUSTIBLE             | IN W254                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                   |
| COMBUSTIBLE             | IN W254                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                  |
| COMBUSTIBLE             | IN W256                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| COMBUSTIBLE             | IN W256                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x M                         | S                | 00                   |
| COMBUSTIBLE             | IN W256                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | M x D                         | S                | 33a                  |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| COMBUSTIBLE             | IN W325                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| COMBUSTIBLE             | IN W327                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| COMBUSTIBLE             | IN W330                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| COMBUSTIBLE             | IN W330                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| COMBUSTIBLE             | IN W330                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33                        |
| COMBUSTIBLE             | IN W336                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, NON-OXIDIZING x CAUSTICS<br><br>(1 x 10)  | T1 x D                        | H                | 00                        |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS<br><br>(1 x 14)  | T1 x D                        | H                | 0aaa                      |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORANIC<br><br>(1 x 15)                                 | T1 x D                        | GT               | 0aaaa                     |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|-------------------------|
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(1 x 23) | T1 x D                        | GF H F           | 1                       |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101)                                | T1 x D                        | H G              | 3                       |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, NON-OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(1 x 106)                                      | T1 x D                        | H                | 3b                      |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T1 x D                        | H                | 00                      |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T1 x D                        | H F              | 3f                      |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | T1 x D                        | GT               | 3g                      |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23)     | T1 x D                        | GF H F           | 4                       |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                    | T1 x D                        | H F GT           | 9                       |
| COMBUSTIBLE             | LA W004                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)  | T1 x D                        | H                | 10a                     |



x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|--|-------------------------------|------------------|---------------------------|
| COMBUSTIBLE             | LA W004                | ACIDS, ORGANIC x CAUSTICS  | T x D                         | H                | 00                        |
|                         |                        | (3 x 10)   |                               |                  |                           |
| COMBUSTIBLE             | LA W004                | ACIDS, ORGANIC x FLUORIDES, INORGANIC  | T x D                         | GT               | 11d                       |
|                         |                        | (3 x 15)   |                               |                  |                           |
| COMBUSTIBLE             | LA W004                | CAUSTICS x HALOGENATED ORGANICS  | D x T1                        | H                | 00                        |
|                         |                        | (10 x 17)  |                               |                  |                           |
| COMBUSTIBLE             | LA W004                | CAUSTICS x KETONES   | D x T                         | H                | 00                        |
|                         |                        | (10 x 19)  |                               |                  |                           |
| COMBUSTIBLE             | LA W004                | CAUSTICS x METALS OTHER ELEMENTAL & ALLOYS IN THE FORM OF POWDERS, VAPORS OR SPONGES | D x T2                        | GF H             | 00                        |
|                         |                        | (10 x 22)  |                               |                  |                           |
| COMBUSTIBLE             | LA W004                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC   | D x D                         | GF H             | 15 00                     |
|                         |                        | (10 x 23)  |                               |                  |                           |
| COMBUSTIBLE             | LA W004                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC   | D x T1                        | S                | 00                        |
|                         |                        | (10 x 24)  |                               |                  |                           |
| COMBUSTIBLE             | LA W004                | CAUSTICS x NITRIDES  | D x T1                        | U                | 00                        |
|                         |                        | (10 x 25)  |                               |                  |                           |
| COMBUSTIBLE             | LA W004                | CAUSTICS x NITRO COMPOUNDS   | D x T1                        | HE               | 00                        |
|                         |                        | (10 x 27)  |                               |                  |                           |

x=Combined with

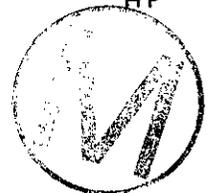
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

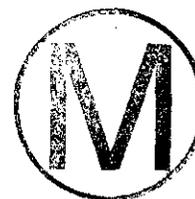
(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| COMBUSTIBLE             | LA W004                | CAUSTICS x ORHANOPHOSPHATES, PHOSPHOTHIOATES & PHOSPHODITHIOATES<br><br>(10 x 32)   | D x T1                        | H E              | 00                         |
| COMBUSTIBLE             | LA W004                | CAUSTICS x EXPLOSIVES<br><br>(10 x 102)   | D x T2                        | H E              | 00                         |
| COMBUSTIBLE             | LA W004                | CAUSTICS x WATER REACTIVE SUBSTANCES<br><br>(10 x 107)  | D x T                         | EXTREMELY        | 00                         |
| COMBUSTIBLE             | LA W004                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)   | D x T1                        | H F              | 17a                        |
| COMBUSTIBLE             | LA W004                | ETHERS x WATER REACTIVE SUBSTANCES<br><br>(14 x 107)  | D x T                         | EXTREMELY        | 17b                        |
| COMBUSTIBLE             | LA W004                | FLUORIDES, INORANIC x WATER REACTIVE SUBSTANCES<br><br>(15 x 107)   | D x T                         | EXTREMELY        | 18                         |
| COMBUSTIBLE             | LA W004                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)                 | T1 x D                        | H F              | 20                         |
| COMBUSTIBLE             | LA W004                | METALS OTHER ELEMENTAL & ALLOYS IN THE FORM OF POWDERS, VAPORS OR SPONGES x WATER & MIXTURES CONTAINING WATER<br><br>(22 x 106) | T2 x D                        | GF H             | 28e                        |
| COMBUSTIBLE             | LA W004                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x OXIDIZING AGENTS, STRONG<br><br>(23 x 104)            | D x T1                        | H F              | 29                         |



x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text



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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| COMBUSTIBLE             | LA W004                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x WATER REACTIVE SUBSTANCES<br><br>(23 x 107) | D x T                         | EXTREMELY        | 31                        |
| COMBUSTIBLE             | LA W004                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                 | T1 x D                        | S                | 33a                       |
| COMBUSTIBLE             | LA W004                | NITRIDES x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(25 x 101)  | T1 x D                        | H GF F           | 36a                       |
| COMBUSTIBLE             | LA W004                | NITRIDES x WATER & MIXTURES CONTAINING WATER<br><br>(25 x 106)  | T1 x D                        | GF H             | 36aa                      |
| COMBUSTIBLE             | LA W004                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x EXPLOSIVES<br><br>(101 x 102)   | D x T2                        | H E              | 36                        |
| COMBUSTIBLE             | LA W004                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)                                 | D x T1                        | H F G            | 38                        |
| COMBUSTIBLE             | LA W004                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x WATER REACTIVE SUBSTANCES<br><br>(101 x 107)                                | D x T                         | EXTREMELY        | 39                        |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, NON-OXIDIZING x CAUSTICS<br><br>(1 x 10)  | T x D                         | H                | 00                        |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS<br><br>(1 x 14)  | T x D                         | H                | 0aaa                      |

x=Combined with  
 (a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
 M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
 (b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
 GT=toxic gas generation; P=violent polymerization; E=explosive  
 (c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORANIC<br><br>(1 x 15)   | T x D                         | GT               | 0aaaa                     |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(1 x 23) | T x D                         | GF H F           | 1                         |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101)                                | T x D                         | H G              | 3                         |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, NON-OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(1 x 106)                                      | T x D                         | H                | 3b                        |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                        |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                        |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORANIC<br><br>(2 x 15)   | T x D                         | GT               | 3g                        |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23)     | T x D                         | GF H F           | 4                         |
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                    | T x D                         | H F GT           | 9                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text





**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|--|-------------------------------|------------------|---------------------------|
| COMBUSTIBLE             | LL M001                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER                        | T x D                         | H                | 10                        |
|                         |                        | (2 x 106)  |                               |                  |                           |
| COMBUSTIBLE             | LL M001                | ACIDS, ORGANIC x CAUSTICS  | T x D                         | H                | 00                        |
|                         |                        | (3 x 10)   |                               |                  |                           |
| COMBUSTIBLE             | LL M001                | ACIDS, ORGANIC x FLUORIDES, INORGANIC  | T x D                         | GT               | 11d                       |
|                         |                        | (3 x 15)   |                               |                  |                           |
| COMBUSTIBLE             | LL M001                | CAUSTICS x HALOGENATED ORGANICS  | D x T                         | H                | 00                        |
|                         |                        | (10 x 17)  |                               |                  |                           |
| COMBUSTIBLE             | LL M001                | CAUSTICS x KETONES   | D x T                         | H                | 00                        |
|                         |                        | (10 x 19)  |                               |                  |                           |
| COMBUSTIBLE             | LL M001                | CAUSTICS x METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS                       | D x T                         | GF H             | 00                        |
|                         |                        | (10 x 21)  |                               |                  |                           |
| COMBUSTIBLE             | LL M001                | CAUSTICS x METALS OTHER ELEMENTAL & ALLOYS IN THE FORM OF POWDERS, VAPORS OR SPONGES | D x T                         | GF H             | 00                        |
|                         |                        | (10 x 22)  |                               |                  |                           |
| COMBUSTIBLE             | LL M001                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC   | D x D                         | GF H             | 15 00                     |
|                         |                        | (10 x 23)  |                               |                  |                           |
| COMBUSTIBLE             | LL M001                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC   | D x T                         | S                | 00                        |
|                         |                        | (10 x 24)  |                               |                  |                           |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| COMBUSTIBLE             | LL M001                | CAUSTICS x EXPLOSIVES<br><br>(10 x 102)   | D x T                         | H E              | 00                         |
| COMBUSTIBLE             | LL M001                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)   | D x T                         | H F              | 17a                        |
| COMBUSTIBLE             | LL M001                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)                 | T x D                         | H F              | 26                         |
| COMBUSTIBLE             | LL M001                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(21 x 101)                 | T x D                         | H G F            | 28b                        |
| COMBUSTIBLE             | LL M001                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x WATER & MIXTURES CONTAINING WATER<br><br>(21 x 106)                       | T x D                         | G F H            | 28d                        |
| COMBUSTIBLE             | LL M001                | METALS OTHER ELEMENTAL & ALLOYS IN THE FORM OF POWDERS, VAPORS OR SPONGES x WATER & MIXTURES CONTAINING WATER<br><br>(22 x 106) | T x D                         | G F H            | 28e                        |
| COMBUSTIBLE             | LL M001                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x OXIDIZING AGENTS, STRONG<br><br>(23 x 104)            | D x T                         | H F              | 30                         |
| COMBUSTIBLE             | LL M001                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)   | T x D                         | S                | 33a 34                     |
| COMBUSTIBLE             | LL M001                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x EXPLOSIVES<br><br>(101 x 102)   | D x T                         | H E              | 36d                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text





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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| COMBUSTIBLE             | LL M001                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)               | D x T                         | H F G            | 38                        |
| COMBUSTIBLE             | RL M009                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| COMBUSTIBLE             | RL M010                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| COMBUSTIBLE             | RL M010                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| COMBUSTIBLE             | RL M010                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                       |
| COMBUSTIBLE             | RL M011                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| COMBUSTIBLE             | RL M011                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| COMBUSTIBLE             | RL M011                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                       |
| COMBUSTIBLE             | RL M012                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); N=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

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|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| COMBUSTIBLE             | RL M012                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| COMBUSTIBLE             | RL M012                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                         |
| COMBUSTIBLE             | RL M013                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                         |
| COMBUSTIBLE             | RL M013                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| COMBUSTIBLE             | RL M013                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                         |
| COMBUSTIBLE             | RL M013                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| COMBUSTIBLE             | RL M013                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | H E              | 00                         |
| COMBUSTIBLE             | RL M013                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                         |
| COMBUSTIBLE             | RL M014                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text





**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| COMBUSTIBLE             | RL M014                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| COMBUSTIBLE             | RL M014                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |
| COMBUSTIBLE             | RL M015                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| COMBUSTIBLE             | RL M015                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| COMBUSTIBLE             | RL M015                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |
| COMBUSTIBLE             | RL M016                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| COMBUSTIBLE             | RL M016                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| COMBUSTIBLE             | RL M016                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| COMBUSTIBLE             | RL M016                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | HF               | 20                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| COMBUSTIBLE             | RL M016                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                        |
| COMBUSTIBLE             | RL M022                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| COMBUSTIBLE             | RL M022                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| COMBUSTIBLE             | RL M022                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                        |
| COMBUSTIBLE             | RL M023                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| FILTER                  | AW M003                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| FILTER                  | AW M003                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| FILTER                  | AW M003                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                        |
| FILTER                  | IN W214                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| FILTER                  | IN W214                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| FILTER                  | IN W214                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                       |
| FILTER                  | RF W066                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T1                        | H                | 00                        |
| FILTER                  | RF W066                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| FILTER                  | RF W066                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T1 x D                        | H F              | 21                        |
| FILTER                  | RF W067                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T1                        | H                | 00                        |
| FILTER                  | RF W067                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| FILTER                  | RF W067                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T1 x D                        | H F              | 23                        |
| GRAPHITE                | IN W272                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|-------------------------|
| GRAPHITE                | IN W272                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br>(10 x 23)             | D x D                         | GF H             | 00                      |
| GRAPHITE                | IN W272                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br>(17 x 23) | T x D                         | H F              | 24                      |
| GRAPHITE                | IN W275                | CAUSTICS x HALOGENATED ORGANICS<br>(10 x 17)  | D x T                         | H                | 00                      |
| GRAPHITE                | IN W275                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br>(10 x 23)             | D x D                         | GF H             | 00                      |
| GRAPHITE                | IN W275                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br>(17 x 23) | T x D                         | H F              | 24                      |
| GRAPHITE                | IN W276                | CAUSTICS x HALOGENATED ORGANICS<br>(10 x 17)  | D x T                         | H                | 00                      |
| GRAPHITE                | IN W276                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br>(10 x 23)             | D x D                         | GF H             | 00                      |
| GRAPHITE                | IN W276                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br>(17 x 23) | T x D                         | H F              | 20                      |
| GRAPHITE                | RF W060                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br>(10 x 23)             | D x D                         | GF H             | 00                      |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| GRAPHITE                | RF W060                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x M                         | S                | 00                         |
| GRAPHITE                | RF W060                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | M x D                         | S                | 33a                        |
| HETEROGENEOUS           | AW W020                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | AW W020                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| HETEROGENEOUS           | AW W020                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                        |
| HETEROGENEOUS           | IN M002                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN M002                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| HETEROGENEOUS           | IN M002                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                        |
| HETEROGENEOUS           | IN W139                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | IN W139                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| HETEROGENEOUS           | IN W139                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                        |
| HETEROGENEOUS           | IN W169                | AMINES, ALIPHATIC & AROMATIC x HALOGENATED ORGANICS<br><br>(7 x 17)   | D x T                         | H G              | 12b                        |
| HETEROGENEOUS           | IN W169                | AMINES, ALIPHATIC & AROMATIC x METALS & METAL COMPOUNDS, TOXIC<br><br>(7 x 24)                                  | D x T                         | S                | 12c                        |
| HETEROGENEOUS           | IN W169                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | IN W169                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN W169                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| HETEROGENEOUS           | IN W169                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                         |
| HETEROGENEOUS           | IN W169                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | IN W170                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | IN W170                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                         |
| HETEROGENEOUS           | IN W170                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN W170                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| HETEROGENEOUS           | IN W170                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33                         |
| HETEROGENEOUS           | IN W171                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | IN W171                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                         |
| HETEROGENEOUS           | IN W171                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN W171                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|-------------------------|
| HETEROGENEOUS           | IN W171                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                     |
| HETEROGENEOUS           | IN W172                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                      |
| HETEROGENEOUS           | IN W172                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                      |
| HETEROGENEOUS           | IN W172                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 33a                     |
| HETEROGENEOUS           | IN W186                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                      |
| HETEROGENEOUS           | IN W186                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                      |
| HETEROGENEOUS           | IN W186                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                      |
| HETEROGENEOUS           | IN W186                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                      |
| HETEROGENEOUS           | IN W186                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                     |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| HETEROGENEOUS           | IN W189                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W189                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                   |
| HETEROGENEOUS           | IN W189                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                  |
| HETEROGENEOUS           | IN W197                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                   |
| HETEROGENEOUS           | IN W197                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x T                         | GF H             |                      |
| HETEROGENEOUS           | IN W197                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |
| HETEROGENEOUS           | IN W197                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                  |
| HETEROGENEOUS           | IN W203                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W203                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| HETEROGENEOUS           | IN W203                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                  |
| HETEROGENEOUS           | IN W204                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W204                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |
| HETEROGENEOUS           | -IN W204               | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                  |
| HETEROGENEOUS           | IN W225                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W225                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                   |
| HETEROGENEOUS           | IN W225                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                  |
| HETEROGENEOUS           | IN W259                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W259                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);

M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | IN W259                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |
| HETEROGENEOUS           | IN W265                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | IN W265                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN W265                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| HETEROGENEOUS           | IN W265                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 2                          |
| HETEROGENEOUS           | IN W265                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                        |
| HETEROGENEOUS           | IN W269                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN W271                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN W271                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

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FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | IN W271                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                   | T x D                         | S                | 33a                        |
| HETEROGENEOUS           | IN W281                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                     | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN W281                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| HETEROGENEOUS           | IN W281                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                   | T x D                         | S                | 33a                        |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, NON-OXIDIZING x CAUSTICS<br><br>(1 x 10)  | T x D                         | H                | 00                         |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS<br><br>(1 x 14)  | T x D                         | H                | 0aaa                       |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORGANIC<br><br>(1 x 15)  | T x D                         | GT               | 0aaaa                      |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(1 x 23) | T x D                         | GF H F           | 1                          |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, NON-OXIDIZING x METALS & METAL COMPOUNDS, TOXIC<br><br>(1 x 24)   | T x M                         | S                | 2                          |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
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FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101)                            | T x D                         | H G              | 3                          |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, NON-OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(1 x 106)                                  | T x D                         | H                | 3b                         |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                         |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                         |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | T x D                         | GT               | 3                          |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 5                          |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, OXIDIZING x METALS & METAL COMPOUNDS, TOXIC<br><br>(2 x 24)   | T x M                         | S                | 7                          |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | T x D                         | H F GT           | 8                          |
| HETEROGENEOUS           | IN W283                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                      | T x D                         | H                | 10a                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|--|-------------------------------|------------------|----------------------|
| HETEROGENEOUS           | IN W283                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)   | D x T                         | H                | 00                   |
| HETEROGENEOUS           | IN W283                | CAUSTICS x ISOCYANATES<br><br>(10 x 18)  | D x T                         | H P G            | 00                   |
| HETEROGENEOUS           | IN W283                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                  | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W283                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)  | D x M                         | S                | 00                   |
| HETEROGENEOUS           | IN W283                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)  | D x T                         | H F              | 17a                  |
| HETEROGENEOUS           | IN W283                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)      | T x D                         | H F              | 24                   |
| HETEROGENEOUS           | IN W283                | ISOCYANATES x WATER & MIXTURES CONTAINING WATER<br><br>(18 x 106)  | T x D                         | H G              | 28aa                 |
| HETEROGENEOUS           | IN W283                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x OXIDIZING AGENTS, STRONG<br><br>(23 x 104) | D x T                         | H F              | 30                   |
| HETEROGENEOUS           | IN W283                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                | M x D                         | S                | 33a                  |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
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FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | IN W283                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)                           | D x T                         | H F G            | 37                         |
| HETEROGENEOUS           | IN W285                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN W285                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| HETEROGENEOUS           | IN W285                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                        |
| HETEROGENEOUS           | IN W289                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | IN W289                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | IN W289                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| HETEROGENEOUS           | IN W289                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                         |
| HETEROGENEOUS           | IN W289                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| HETEROGENEOUS           | IN W291                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                   |
| HETEROGENEOUS           | IN W291                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                   |
| HETEROGENEOUS           | IN W291                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W302                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                   |
| HETEROGENEOUS           | IN W302                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W302                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                   |
| HETEROGENEOUS           | IN W323                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W323                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |
| HETEROGENEOUS           | IN W323                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                  |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



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| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| HETEROGENEOUS           | IN W329                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W334                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W345                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | IN W351                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | INW2698                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x ALCOHOLS & GLYCOLS<br><br>(1 x 4)                                   | M x T                         | H                | 0a                   |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x CAUSTICS<br><br>(1 x 10)  | M x D                         | H                | 0aa 00               |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS<br><br>(1 x 14)  | M x D                         | H                | 0aaa                 |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORANIC<br><br>(1 x 15)                                 | M x D                         | GT               | 0aaaa                |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

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|-------------------------|------------------------|--|-------------------------------|------------------|---------------------------|
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x HALOGENATED ORGANICS<br><br>(1 x 17)                     | M x T                         | H GT             | 0b                        |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x KETONES<br><br>(1 x 19)                                  | M x T                         | H                | 0bb                       |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x METALS & METAL COMPOUNDS, TOXIC<br><br>(1 x 24)          | M x T                         | S                | 2                         |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101) | M x T                         | H G              | 3                         |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x EXPLOSIVES<br><br>(1 x 102)                              | M x T                         | H E              | 3a                        |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x OXIDIZING AGENTS, STRONG<br><br>(1 x 104)                | M x T                         | H GT             | 3aa                       |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x WATER & MIXTURES CONTAINING WATER.<br><br>(1 x 106)      | M x D                         | H                | 3b                        |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x ACIDS, ORGANIC<br><br>(2 x 3)                                | M x T                         | G H              | 3c                        |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x ALCOHOLS & GLYCOLS<br><br>(2 x 4)                            | M x T                         | H F              | 3d                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive

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|-------------------------|------------------------|--|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)                                 | M x D                         | H                | 3e 00                      |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)                                   | M x D                         | H F              | 3f                         |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)                     | M x D                         | GT               | 3g                         |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x HALOGENATED ORGANICS<br><br>(2 x 17)                     | M x T                         | H F GT           | 3h                         |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x KETONES<br><br>(2 x 19)                                  | M x T                         | H F              | 3i                         |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x METALS & METAL COMPOUNDS, TOXIC<br><br>(2 x 24)          | M x T                         | S                | 67                         |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101) | M x T                         | H F GT           | 89                         |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x EXPLOSIVES<br><br>(2 x 102)                              | M x T                         | H E              | 9a                         |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)       | M x D                         | H                | 10a                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | NT W001                | ACIDS, ORGANIC x CAUSTICS<br><br>(3 x 10)   | T x D                         | H                | 11b 00                     |
| HETEROGENEOUS           | NT W001                | ACIDS, ORGANIC x FLUORIDES, INORGANIC<br><br>(3 x 15)   | T x D                         | GT               | 11d                        |
| HETEROGENEOUS           | NT W001                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 13 00                      |
| HETEROGENEOUS           | NT W001                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 13a 00                     |
| HETEROGENEOUS           | NT W001                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 16a 00                     |
| HETEROGENEOUS           | NT W001                | CAUSTICS x EXPLOSIVES<br><br>(10 x 102)   | D x T                         | HE               | 16c 00                     |
| HETEROGENEOUS           | NT W001                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)   | D x T                         | HF               | 17a                        |
| HETEROGENEOUS           | NT W001                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                   | T x D                         | S                | 33 33a                     |
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(1 x 23) | T x M                         | GFHF             | 1                          |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|--|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | NT W001                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23)  | T x M                         | GF H F           | 45                         |
| HETEROGENEOUS           | NT W001                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                  | T x M                         | GF H             | 15 00                      |
| HETEROGENEOUS           | NT W001                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)      | T x M                         | H F              | 20 24                      |
| HETEROGENEOUS           | NT W001                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(21 x 101)      | T x D                         | H G F            | 28b                        |
| HETEROGENEOUS           | NT W001                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x OXIDIZING AGENTS, STRONG<br><br>(23 x 104) | M x T                         | H F              | 35                         |
| HETEROGENEOUS           | NT W001                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x EXPLOSIVES<br><br>(101 x 102)  | D x T                         | H E              | 36d                        |
| HETEROGENEOUS           | NT W001                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)                                | D x T                         | H F G            | 38                         |
| HETEROGENEOUS           | OR W040                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                  | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | OR W040                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)  | D x T                         | S                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | OR W040                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                   | T x D                         | S                | 33a                        |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, NON-OXIDIZING x CAUSTICS<br><br>(1 x 10)  | T x D                         | H                | 00                         |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS<br><br>(1 x 14)  | T x D                         | H                | 0aaa                       |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORGANIC<br><br>(1 x 15)  | T x D                         | GT               | 0aaaa                      |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(1 x 23) | T x D                         | GF H F           | 1                          |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101)                                | T x D                         | H G              | 3                          |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, NON-OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(1 x 106)                                      | T x D                         | H                | 3b                         |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                         |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|--|-------------------------------|------------------|----------------------------|
|                         |                        | (2 x 15)   |                               |                  |                            |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORANIC  | T x D                         | GT               | 3g                         |
|                         |                        | (2 x 15)   |                               |                  |                            |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC                    | T x D                         | GF H F           | 5                          |
|                         |                        | (2 x 23)   |                               |                  |                            |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC  | T x D                         | H F GT           | 8                          |
|                         |                        | (2 x 101)  |                               |                  |                            |
| HETEROGENEOUS           | OR W044                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER  | T x D                         | H                | 10a                        |
|                         |                        | (2 x 106)  |                               |                  |                            |
| HETEROGENEOUS           | OR W044                | ACIDS, ORGANIC x CAUSTICS  | T2 x D                        | H                | 00                         |
|                         |                        | (3 x 10)   |                               |                  |                            |
| HETEROGENEOUS           | OR W044                | ACIDS, ORGANIC x FLUORIDES, INORANIC   | T2 x D                        | GT               | 11d                        |
|                         |                        | (3 x 15)   |                               |                  |                            |
| HETEROGENEOUS           | OR W044                | AZO COMPOUNDS, DIAZO COMPOUNDS, & HYDRAZINES x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC | T2 x D                        | H F G            | 12e                        |
|                         |                        | (8 x 23)   |                               |                  |                            |
| HETEROGENEOUS           | OR W044                | AZO COMPOUNDS, DIAZO COMPOUNDS, & HYDRAZINES x WATER & MIXTURES CONTAINING WATER                                       | T2 x D                        | G                | 12f                        |
|                         |                        | (8 x 106)  |                               |                  |                            |
| HETEROGENEOUS           | OR W044                | CAUSTICS x ESTERS  | D x T2                        | H                | 00                         |
|                         |                        | (10 x 13)  |                               |                  |                            |

x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|--|-------------------------------|------------------|----------------------|
| HETEROGENEOUS           | OR W044                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)   | D x T2                        | H                | 00                   |
| HETEROGENEOUS           | OR W044                | CAUSTICS x KETONES<br><br>(10 x 19)  | D x T2                        | H                | 00                   |
| HETEROGENEOUS           | OR W044                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                  | D x D                         | GF H             | 15 00                |
| HETEROGENEOUS           | OR W044                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)  | D x T                         | S                | 00                   |
| HETEROGENEOUS           | OR W044                | CAUSTICS x ORHANOPHOSPHATES, PHOSPHOTHIOATES & PHOSPHODITHIOATES<br><br>(10 x 32)                                    | D x T1                        | H E              | 00                   |
| HETEROGENEOUS           | OR W044                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)  | D x T1                        | H F              | 17a                  |
| HETEROGENEOUS           | OR W044                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)      | T2 x D                        | H F              | 20 22                |
| HETEROGENEOUS           | OR W044                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x OXIDIZING AGENTS, STRONG<br><br>(23 x 104) | D x T1                        | H F              | 29                   |
| HETEROGENEOUS           | OR W044                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                | T x D                         | S                | 33a                  |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | OR W044                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)               | D x T1                        | H F G            | 38                         |
| HETEROGENEOUS           | OR W045                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | OR W045                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| HETEROGENEOUS           | OR W045                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                        |
| HETEROGENEOUS           | OR W047                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | OR W047                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| HETEROGENEOUS           | OR W047                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                        |
| HETEROGENEOUS           | RF M002                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | RF M002                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| HETEROGENEOUS           | RF M002                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | RF M002                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | H E              | 00                   |
| HETEROGENEOUS           | RF M002                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                   |
| HETEROGENEOUS           | RF W008                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                   |
| HETEROGENEOUS           | RF W008                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | RF W008                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 23                   |
| HETEROGENEOUS           | RF W012                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                   |
| HETEROGENEOUS           | RF W012                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                   |
| HETEROGENEOUS           | RF W012                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                   |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | RF W036                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | RF W036                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | RF W036                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| HETEROGENEOUS           | RF W036                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 24                         |
| HETEROGENEOUS           | RF W036                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 3                          |
| HETEROGENEOUS           | RL M004                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| HETEROGENEOUS           | RL M006                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | RL M006                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | RL M006                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX<br>CODE GROUP | WASTE<br>STREAM<br>UNIQUE ID | POTENTIAL CHEMICAL<br>COMPATIBILITY REACTION  | CONCENTRATION<br>OF<br>REACTANTS(a) | REACTION<br>CODE(b) | EXPLANA'<br>CODE<br>NUMBER |
|----------------------------|------------------------------|---|-------------------------------------|---------------------|----------------------------|
| HETEROGENEOUS              | RL M006                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                         |
| HETEROGENEOUS              | RL M006                      | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                               | H F                 | 20                         |
| HETEROGENEOUS              | RL M031                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                         |
| HETEROGENEOUS              | RL M201                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                         |
| HETEROGENEOUS              | SA W134                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                         |
| HETEROGENEOUS              | SR W026                      | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                               | H                   | 00                         |
| HETEROGENEOUS              | SR W026                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                         |
| HETEROGENEOUS              | SR W026                      | CAUSTICS x METALS & METAL COMPOUNDS,<br>TOXIC<br><br>(10 x 24)  | D x T                               | S                   | 00                         |
| HETEROGENEOUS              | SR W026                      | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                               | H F                 | 20                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| HETEROGENEOUS           | SR W026                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |
| HETEROGENEOUS           | SR W027                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | SR W027                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| HETEROGENEOUS           | SR W027                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                         |
| HETEROGENEOUS           | SR W027                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             |                            |
| HETEROGENEOUS           | SR W027                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| HETEROGENEOUS           | SR W027                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | HE               | 00                         |
| HETEROGENEOUS           | SR W027                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                         |
| HETEROGENEOUS           | SR W027                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |

x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| INORGANIC NON-METAL     | IN W161                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| INORGANIC NON-METAL     | IN W161                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| INORGANIC NON-METAL     | IN W161                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |
| INORGANIC NON-METAL     | IN W230                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| INORGANIC NON-METAL     | IN W230                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| INORGANIC NON-METAL     | IN W230                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 24                         |
| INORGANIC NON-METAL     | IN W240                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T3                        | H                | 00                         |
| INORGANIC NON-METAL     | IN W240                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| INORGANIC NON-METAL     | IN W240                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| INORGANIC NON-METAL     | IN W240                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)     | T3 x D                        | H F              | 24                         |
| INORGANIC NON-METAL     | IN W240                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                               | D x D                         | S                | 33a                        |
| INORGANIC NON-METAL     | IN W243                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                         |
| INORGANIC NON-METAL     | IN W243                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 5                          |
| INORGANIC NON-METAL     | IN W243                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISCELLANEOUS<br><br>(2 x 101)                       | T x D                         | H F GT           | 8                          |
| INORGANIC NON-METAL     | IN W243                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                      | T x D                         | H                | 10a                        |
| INORGANIC NON-METAL     | IN W243                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                         |
| INORGANIC NON-METAL     | IN W243                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| INORGANIC NON-METAL     | IN W243                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|-------------------------|
| INORGANIC NON-METAL     | IN W243                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                 | D x D                         | GF H             | 00                      |
| INORGANIC NON-METAL     | IN W243                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                      |
| INORGANIC NON-METAL     | IN W243                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | HE               | 00                      |
| INORGANIC NON-METAL     | -IN W243               | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)     | T x D                         | HF               | 24                      |
| INORGANIC NON-METAL     | IN W243                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                               | T x D                         | S                | 33a                     |
| INORGANIC NON-METAL     | IN W245                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                      |
| INORGANIC NON-METAL     | IN W245                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | HF               | 3f                      |
| INORGANIC NON-METAL     | IN W245                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | T x D                         | GT               | 3g                      |
| INORGANIC NON-METAL     | IN W245                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 5                       |

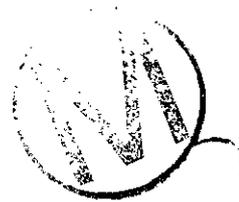


x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (41-ppm range); N=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| INORGANIC NON-METAL     | IN W245                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                            | T x D                         | H F GT           | 8                         |
| INORGANIC NON-METAL     | IN W245                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                  | T x D                         | H                | 10a                       |
| INORGANIC NON-METAL     | IN W245                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                        |
| INORGANIC NON-METAL     | IN W245                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| INORGANIC NON-METAL     | IN W245                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| INORGANIC NON-METAL     | IN W245                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 24                        |
| INORGANIC NON-METAL     | IN W245                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                       |
| INORGANIC NON-METAL     | IN W247                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                        |
| INORGANIC NON-METAL     | IN W247                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                        |

x=Combined with  
 (a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
 M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
 (b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
 GT=toxic gas generation; P=violent polymerization; E=explosive  
 (c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| INORGANIC NON-METAL     | IN W247                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)                                    | T x D                         | GT               | 3g                   |
| INORGANIC NON-METAL     | IN W247                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                | T x D                         | H F GT           | 8                    |
| INORGANIC NON-METAL     | IN W247                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                      | T x D                         | H                | 10a                  |
| INORGANIC NON-METAL     | IN W247                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                   |
| INORGANIC NON-METAL     | IN W247                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x T                         | GF H             | 00                   |
| INORGANIC NON-METAL     | IN W247                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |
| INORGANIC NON-METAL     | IN W247                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                  |
| INORGANIC NON-METAL     | IN W249                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| INORGANIC NON-METAL     | IN W249                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1**  
**SUMMARY OF POTENTIAL INCOMPATIBILITIES**  
**FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER(c) |
|-------------------------|------------------------|--|-------------------------------|------------------|-------------------------|
| INORGANIC NON-METAL     | IN W249                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER                            | T x D                         | S                | 33a                     |
|                         |                        | (24 x 106)   |                               |                  |                         |
| INORGANIC NON-METAL     | MD M001                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC             | D x D                         | GF H             | 00                      |
|                         |                        | (10 x 23)  |                               |                  |                         |
| INORGANIC NON-METAL     | RF W026                | CAUSTICS x HALOGENATED ORGANICS  | D x T                         | H                | 00                      |
|                         |                        | (10 x 17)  |                               |                  |                         |
| INORGANIC NON-METAL     | RF W026                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC             | D x D                         | GF H             | 00                      |
|                         |                        | (10 x 23)  |                               |                  |                         |
| INORGANIC NON-METAL     | RF W026                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC | T x D                         | H F              |                         |
|                         |                        | (17 x 23)  |                               |                  |                         |
| INORGANIC NON-METAL     | RF W032                | CAUSTICS x HALOGENATED ORGANICS  | D x T3                        | H                | 00                      |
|                         |                        | (10 x 17)  |                               |                  |                         |
| INORGANIC NON-METAL     | RF W032                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC             | D x D                         | GF H             | 00                      |
|                         |                        | (10 x 23)  |                               |                  |                         |
| INORGANIC NON-METAL     | RF W032                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC   | D x D                         | S                | 00                      |
|                         |                        | (10 x 24)  |                               |                  |                         |
| INORGANIC NON-METAL     | RF W032                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC | T3 x D                        | H F              | 22                      |
|                         |                        | (17 x 23)  |                               |                  |                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| INORGANIC NON-METAL     | RF W032                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                        |
| INORGANIC NON-METAL     | RF W052                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T3                        | H                | 00                         |
| INORGANIC NON-METAL     | RF W052                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| INORGANIC NON-METAL     | RF W052                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| INORGANIC NON-METAL     | RF W052                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T3 x D                        | H F              | 22                         |
| INORGANIC NON-METAL     | RF W052                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                        |
| INORGANIC NON-METAL     | RF W056                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T3                        | H                | 00                         |
| INORGANIC NON-METAL     | RF W056                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| INORGANIC NON-METAL     | RF W056                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX<br>CODE GROUP  | WASTE<br>STREAM<br>UNIQUE ID | POTENTIAL CHEMICAL<br>COMPATIBILITY REACTION  | CONCENTRATION<br>OF<br>REACTANTS(a) | REACTION<br>CODE(b) | EXPLANATIO<br>CODE<br>NUMBER(c) |
|-----------------------------|------------------------------|---|-------------------------------------|---------------------|---------------------------------|
| INORGANIC<br>NON-METAL      | RF W056                      | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T3 x D                              | HF                  | 22                              |
| INORGANIC<br>NON-METAL      | RF W056                      | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                              | D x D                               | S                   | 33a                             |
| INORGANIC<br>NON-METAL      | RF W057                      | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                               | H                   | 00                              |
| INORGANIC<br>NON-METAL      | RF W057                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                              |
| INORGANIC<br>NON-METAL      | RF W057                      | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                               | HF                  | 22                              |
| LEAD/CADMIUM<br>METAL WASTE | AW M001                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                              |
| LEAD/CADMIUM<br>METAL WASTE | AW M001                      | CAUSTICS x METALS & METAL COMPOUNDS,<br>TOXIC<br><br>(10 x 24)  | D x D                               | S                   | 00                              |
| LEAD/CADMIUM<br>METAL WASTE | AW M001                      | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                              | D x D                               | S                   | 33a 34                          |
| LEAD/CADMIUM<br>METAL WASTE | AW M002                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                              |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP  | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|--------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| LEAD/CADMIUM METAL WASTE | AW M002                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| LEAD/CADMIUM METAL WASTE | AW M002                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                        |
| LEAD/CADMIUM METAL WASTE | AW W016                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| LEAD/CADMIUM METAL WASTE | AW W016                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x M                         | S                | 00                         |
| LEAD/CADMIUM METAL WASTE | AW W016                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | M x D                         | S                | 33a                        |
| LEAD/CADMIUM METAL WASTE | AW W022                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| LEAD/CADMIUM METAL WASTE | AW W022                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x M                         | S                | 00                         |
| LEAD/CADMIUM METAL WASTE | AW W022                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | M x D                         | S                | 33a 34                     |
| LEAD/CADMIUM METAL WASTE | ET M001                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text





**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP  | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|--------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| LEAD/CADMIUM METAL WASTE | ET M001                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| LEAD/CADMIUM METAL WASTE | ET M001                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                        |
| LEAD/CADMIUM METAL WASTE | IN M004                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| LEAD/CADMIUM METAL WASTE | IN M004                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x M                         | S                | 00                         |
| LEAD/CADMIUM METAL WASTE | IN M004                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | M x D                         | S                | 33a                        |
| LEAD/CADMIUM METAL WASTE | IN M005                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| LEAD/CADMIUM METAL WASTE | IN M005                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x M                         | S                | 00                         |
| LEAD/CADMIUM METAL WASTE | IN M005                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | M x D                         | S                | 33a                        |
| LEAD/CADMIUM METAL WASTE | RF W029                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP  | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER(c) |
|--------------------------|------------------------|---|-------------------------------|------------------|-------------------------|
| LEAD/CADMIUM METAL WASTE | RF W029                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                      |
| LEAD/CADMIUM METAL WASTE | RF W029                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                               | D x D                         | S                | 33a                     |
| LEAD/CADMIUM METAL WASTE | RF W041                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                      |
| LEAD/CADMIUM METAL WASTE | -RF W041 -             | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                      |
| LEAD/CADMIUM METAL WASTE | RF W041                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORANIC<br><br>(2 x 15)   | T x D                         | GT               | 3g                      |
| LEAD/CADMIUM METAL WASTE | RF W041                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 5                       |
| LEAD/CADMIUM METAL WASTE | RF W041                | ACIDS, MINERAL, OXIDIZING x METALS & METAL COMPOUNDS, TOXIC<br><br>(2 x 24)   | T x D                         | <del>GF</del> S  | 7                       |
| LEAD/CADMIUM METAL WASTE | RF W041                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | T x D                         | H F GT           | 8                       |
| LEAD/CADMIUM METAL WASTE | RF W041                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                      | T x D                         | H                | 10a                     |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1**  
**SUMMARY OF POTENTIAL INCOMPATIBILITIES**  
**FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP  | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|--------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| LEAD/CADMIUM METAL WASTE | RF W041                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| LEAD/CADMIUM METAL WASTE | RF W041                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| LEAD/CADMIUM METAL WASTE | RF W041                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | D x D                         | S                | 33a                        |
| LEAD/CADMIUM METAL WASTE | RL M019                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| LEAD/CADMIUM METAL WASTE | RL M019                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| LEAD/CADMIUM METAL WASTE | RL M019                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                        |
| LEAD/CADMIUM METAL WASTE | RL M020                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| LEAD/CADMIUM METAL WASTE | RL M020                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| LEAD/CADMIUM METAL WASTE | RL M020                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                        |

x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SALT WASTE              | IN M001                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| SALT WASTE              | IN M001                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| SALT WASTE              | IN M001                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |
| SALT WASTE              | IN W311                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| SALT WASTE              | IN W311                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| SALT WASTE              | IN W311                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 20                         |
| SALT WASTE              | IN W312                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 14 00                      |
| SALT WASTE              | IN W312                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T1                        | S                | 16 00                      |
| SALT WASTE              | IN W312                | CAUSTICS x WATER REACTIVE SUBSTANCES<br><br>(10 x 107)  | D x M                         | EXTREMELY        | 17 00                      |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SALT WASTE              | IN W312                | ETHERS x WATER REACTIVE SUBSTANCES<br><br>(14 x 107)  | D x M                         | EXTREMELY        | 17b                       |
| SALT WASTE              | IN W312                | FLUORIDES, INORGANIC x WATER REACTIVE SUBSTANCES<br><br>(15 x 107)  | D x M                         | EXTREMELY        | 18                        |
| SALT WASTE              | IN W312                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x WATER REACTIVE SUBSTANCES<br><br>(23 x 107) | D x M                         | EXTREMELY        | 31                        |
| SALT WASTE              | IN W312                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                 | T1 x D                        | S                | 33a                       |
| SALT WASTE              | IN W312                | METALS & METAL COMPOUNDS, TOXIC x WATER REACTIVE SUBSTANCES<br><br>(24 x 107)   | T1 x M                        | EXTREMELY        | 35                        |
| SALT WASTE              | IN W312                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x WATER REACTIVE SUBSTANCES<br><br>(101 x 107)                                | D x M                         | EXTREMELY        | 39                        |
| SALT WASTE              | IN W314                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                        |
| SALT WASTE              | IN W314                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                   | D x D                         | GF H             | 00                        |
| SALT WASTE              | IN W314                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)       | T x D                         | H F              | 20                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| SALT WASTE              | RF W058                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                   | D x D                         | GF H             | 15 00                |
| SALT WASTE              | RF W058                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T1                        | S                | 16 00                |
| SALT WASTE              | RF W058                | CAUSTICS x WATER REACTIVE SUBSTANCES<br><br>(10 x 107)  | D x M                         | EXTREMELY        | 17 00                |
| SALT WASTE              | RF W058                | ETHERS x WATER REACTIVE SUBSTANCES<br><br>(14 x 107)  | D x M                         | EXTREMELY        | 17b                  |
| SALT WASTE              | RF W058                | FLUORIDES, INORGANIC x WATER REACTIVE SUBSTANCES<br><br>(15 x 107)  | D x M                         | EXTREMELY        | 18                   |
| SALT WASTE              | RF W058                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x WATER REACTIVE SUBSTANCES<br><br>(23 x 107) | D x M                         | EXTREMELY        | 31                   |
| SALT WASTE              | RF W058                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                 | T1 x D                        | S                | 33a                  |
| SALT WASTE              | RF W058                | METALS & METAL COMPOUNDS, TOXIC x WATER REACTIVE SUBSTANCES<br><br>(24 x 107)   | T1 x M                        | EXTREMELY        | 35                   |
| SALT WASTE              | RF W058                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x WATER REACTIVE SUBSTANCES<br><br>(101 x 107)                                | D x M                         | EXTREMELY        | 39                   |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SOILS                   | IN W263                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| SOILS                   | IN W263                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| SOILS                   | IN W263                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                       |
| SOILS                   | RL M007                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| SOILS                   | RL M007                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| SOILS                   | RL M007                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                       |
| SOLIDIFIED INORGANICS   | AL W005                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | AL W005                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                        |
| SOLIDIFIED INORGANICS   | AL W005                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORANIC<br><br>(2 x 15)                                     | T x D                         | GT               | 3g                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
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| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| SOLIDIFIED INORGANICS   | AL W005                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 4                    |
| SOLIDIFIED INORGANICS   | AL W005                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | T x D                         | H F GT           | 9                    |
| SOLIDIFIED INORGANICS   | AL W005                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                      | T x D                         | H                | 10 10a               |
| SOLIDIFIED INORGANICS   | AL W005                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                 | D x D                         | GF H             | 00                   |
| SOLIDIFIED INORGANICS   | AL W005                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |
| SOLIDIFIED INORGANICS   | AL W005                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                               | T x D                         | S                | 33a 34               |
| SOLIDIFIED INORGANICS   | IN W146                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                 | D x D                         | GF H             | 00                   |
| SOLIDIFIED INORGANICS   | IN W146                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |
| SOLIDIFIED INORGANICS   | IN W146                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                               | T x D                         | S                | 33a                  |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



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FOR WASTE FORMS AND CONTAINER**

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|-------------------------|------------------------|--|-------------------------------|------------------|---------------------------|
| SOLIDIFIED INORGANICS   | IN W157                | ACIDS, ORGANIC x ALCOHOLS & GLYCOLS  | M x T                         | HP               | 11 11a                    |
|                         |                        | (3 x 4)  |                               |                  |                           |
| SOLIDIFIED INORGANICS   | IN W157                | ACIDS, ORGANIC x CAUSTICS  | M x D                         | H                | 00                        |
|                         |                        | (3 x 10)   |                               |                  |                           |
| SOLIDIFIED INORGANICS   | IN W157                | ACIDS, ORGANIC x FLUORIDES, INORGANIC  | M x D                         | GT               | 11d                       |
|                         |                        | (3 x 15)   |                               |                  |                           |
| SOLIDIFIED INORGANICS   | IN W157                | ACIDS, ORGANIC x METALS & METAL COMPOUNDS, TOXIC   | M x T                         | S                | 12 12aa                   |
|                         |                        | (3 x 24)   |                               |                  |                           |
| SOLIDIFIED INORGANICS   | IN W157                | CAUSTICS x HALOGENATED ORGANICS  | D x T                         | H                | 00                        |
|                         |                        | (10 x 17)  |                               |                  |                           |
| SOLIDIFIED INORGANICS   | IN W157                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC             | D x D                         | GFH              | 00                        |
|                         |                        | (10 x 23)  |                               |                  |                           |
| SOLIDIFIED INORGANICS   | IN W157                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC   | D x T                         | S                | 00                        |
|                         |                        | (10 x 24)  |                               |                  |                           |
| SOLIDIFIED INORGANICS   | IN W157                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC | T x D                         | HF               | 25                        |
|                         |                        | (17 x 23)  |                               |                  |                           |
| SOLIDIFIED INORGANICS   | IN W157                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER                            | T x D                         | S                | 33a 34                    |
|                         |                        | (24 x 106)   |                               |                  |                           |

x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|-------------------------|
| SOLIDIFIED INORGANICS   | IN W166                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T1                        | H                | 00                      |
| SOLIDIFIED INORGANICS   | IN W166                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                      |
| SOLIDIFIED INORGANICS   | IN W166                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T1                        | S                | 00                      |
| SOLIDIFIED INORGANICS   | IN W166                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T1 x D                        | H F              | 25                      |
| SOLIDIFIED INORGANICS   | IN W166                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T1 x D                        | S                | 33a 34                  |
| SOLIDIFIED INORGANICS   | IN W177                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 15 00                   |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, NON-OXIDIZING x CAUSTICS<br><br>(1 x 10)  | T x D                         | H                | 00                      |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS<br><br>(1 x 14)  | T x D                         | H                | 0aaa                    |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORGANIC<br><br>(1 x 15)  | T x D                         | GT               | 0aaaa                   |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(1 x 23) | T x D                         | GF H F           | 1                          |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101)                                | T x D                         | H G              | 3                          |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, NON-OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(1 x 106)                                      | T x D                         | H                | 3b                         |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                         |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              |                            |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | T x D                         | M <sup>ST</sup>  | 3g                         |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23)     | T x D                         | GF H F           | 4                          |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                    | T x D                         | H F GT           | 9                          |
| SOLIDIFIED INORGANICS   | IN W179                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)  | T x D                         | H                | 10a                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| <b>WASTE MATRIX<br/>CODE GROUP</b> | <b>WASTE<br/>STREAM<br/>UNIQUE ID</b> | <b>POTENTIAL CHEMICAL<br/>COMPATIBILITY REACTION</b>  | <b>CONCENTRATION<br/>OF<br/>REACTANTS(a)</b> | <b>REACTION<br/>CODE(b)</b> | <b>EXPLANATI<br/>CODE<br/>NUMBER(c)</b> |
|------------------------------------|---------------------------------------|---|--|-----------------------------|---|
| SOLIDIFIED<br>INORGANICS           | IN W179                               | ACIDS, ORGANIC x CAUSTICS<br><br>(3 x 10)   | T x D  | H                           | 00                                      |
| SOLIDIFIED<br>INORGANICS           | IN W179                               | ACIDS, ORGANIC x FLUORIDES, INORGANIC<br><br>(3 x 15)   | T x D  | GT                          | 11d                                     |
| SOLIDIFIED<br>INORGANICS           | IN W179                               | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T  | H                           | 00                                      |
| SOLIDIFIED<br>INORGANICS           | IN W179                               | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T  | H                           | 00                                      |
| SOLIDIFIED<br>INORGANICS           | IN W179                               | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T  | H                           | 00                                      |
| SOLIDIFIED<br>INORGANICS           | IN W179                               | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D  | GF H                        | 15 00                                   |
| SOLIDIFIED<br>INORGANICS           | IN W179                               | CAUSTICS x METALS & METAL COMPOUNDS,<br>TOXIC<br><br>(10 x 24)  | D x T  | S                           | 00                                      |
| SOLIDIFIED<br>INORGANICS           | IN W179                               | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D  | H F                         | 19                                      |
| SOLIDIFIED<br>INORGANICS           | IN W179                               | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 105)                              | T x D  | S                           | 33a 34                                  |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | IN W181                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                         |
| SOLIDIFIED INORGANICS   | IN W181                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                         |
| SOLIDIFIED INORGANICS   | IN W181                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | T x D                         | GT               | 3g                         |
| SOLIDIFIED INORGANICS   | IN W181                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 4                          |
| SOLIDIFIED INORGANICS   | IN W181                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | T x D                         | H F GT           | 9                          |
| SOLIDIFIED INORGANICS   | IN W181                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                      | T x D                         | H                | 10 10a                     |
| SOLIDIFIED INORGANICS   | IN W181                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| SOLIDIFIED INORGANICS   | IN W181                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                 | D x D                         | GF H             | 15 00                      |
| SOLIDIFIED INORGANICS   | IN W181                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| SOLIDIFIED INORGANICS   | IN W181                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)     | T x D                         | H F              | 25                   |
| SOLIDIFIED INORGANICS   | IN W181                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                               | T x D                         | S                | 33a 34               |
| SOLIDIFIED INORGANICS   | IN W188                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                   |
| SOLIDIFIED INORGANICS   | IN W188                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                   |
| SOLIDIFIED INORGANICS   | IN W188                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | T x D                         | GT               | 3g                   |
| SOLIDIFIED INORGANICS   | IN W188                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 4                    |
| SOLIDIFIED INORGANICS   | IN W188                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | T x D                         | H F GT           | 9                    |
| SOLIDIFIED INORGANICS   | IN W188                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                      | T x D                         | H                | 10                   |
| SOLIDIFIED INORGANICS   | IN W188                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                   |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SOLIDIFIED INORGANICS   | IN W188                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                 | D x D                         | GF H             | 15 00                     |
| SOLIDIFIED INORGANICS   | IN W188                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| SOLIDIFIED INORGANICS   | IN W188                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)     | T x D                         | H F              | 2b                        |
| SOLIDIFIED INORGANICS   | IN W188                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                               | T x D                         | S                | 33a 34                    |
| SOLIDIFIED INORGANICS   | IN W216                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | IN W216                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                        |
| SOLIDIFIED INORGANICS   | IN W216                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | T x D                         | GT               | 3g                        |
| SOLIDIFIED INORGANICS   | IN W216                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 4                         |
| SOLIDIFIED INORGANICS   | IN W216                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | T x D                         | H F GT           | 9                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | IN W216                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                  | T x D                         | H                | 10                         |
| SOLIDIFIED INORGANICS   | IN W216                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| SOLIDIFIED INORGANICS   | IN W216                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 15 00                      |
| SOLIDIFIED INORGANICS   | IN W216                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| SOLIDIFIED INORGANICS   | IN W216                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 25                         |
| SOLIDIFIED INORGANICS   | IN W216                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a 34                     |
| SOLIDIFIED INORGANICS   | IN W220                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                         |
| SOLIDIFIED INORGANICS   | IN W220                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                         |
| SOLIDIFIED INORGANICS   | IN W220                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | T x D                         | GT               | 3g                         |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | IN W220                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 4                          |
| SOLIDIFIED INORGANICS   | IN W220                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | T x D                         | H F GT           | 9                          |
| SOLIDIFIED INORGANICS   | IN W220                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                      | T x D                         | H                | 10                         |
| SOLIDIFIED INORGANICS   | IN W220                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| SOLIDIFIED INORGANICS   | IN W220                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                 | D x D                         | GF H             | 15                         |
| SOLIDIFIED INORGANICS   | IN W220                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| SOLIDIFIED INORGANICS   | IN W220                | CAUSTICS x ORPHANOPHOSPHATES, PHOSPHOTHIOATES & PHOSPHODITHIOATES<br><br>(10 x 32)                                  | D x T3                        | H E              | 00                         |
| SOLIDIFIED INORGANICS   | IN W220                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)     | T x D                         | H F              | 25                         |
| SOLIDIFIED INORGANICS   | IN W220                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                               | T x D                         | S                | 33 33a 34                  |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| SOLIDIFIED INORGANICS   | IN W221                | ACIDS, ORGANIC x ALCOHOLS & GLYCOLS<br><br>(3 x 4)  | M x T1                        | HP               | 11                   |
| SOLIDIFIED INORGANICS   | IN W221                | ACIDS, ORGANIC x CAUSTICS<br><br>(3 x 10)   | M x D                         | H                | 00                   |
| SOLIDIFIED INORGANICS   | IN W221                | ACIDS, ORGANIC x FLUORIDES, INORGANIC<br><br>(3 x 15)   | M x D                         | GT               | 11d                  |
| SOLIDIFIED INORGANICS   | IN W221                | ACIDS, ORGANIC x METALS & METAL COMPOUNDS, TOXIC<br><br>(3 x 24)                                    | M x T                         | S                | 12                   |
| SOLIDIFIED INORGANICS   | IN W221                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                   |
| SOLIDIFIED INORGANICS   | IN W221                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                   |
| SOLIDIFIED INORGANICS   | IN W221                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                   |
| SOLIDIFIED INORGANICS   | IN W221                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |
| SOLIDIFIED INORGANICS   | IN W221                | CAUSTICS x ORPHANOPHOSPHATES, PHOSPHOTHIOATES & PHOSPHODITHIOATES<br><br>(10 x 32)                  | D x T                         | HE               | 00                   |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX<br>CODE GROUP | WASTE<br>STREAM<br>UNIQUE ID | POTENTIAL CHEMICAL<br>COMPATIBILITY REACTION  | CONCENTRATION<br>OF<br>REACTANTS(a) | REACTION<br>CODE(b) | EXPLANATIC<br>CODE<br>NUMBER(c) |
|----------------------------|------------------------------|---|-------------------------------------|---------------------|---------------------------------|
| SOLIDIFIED<br>INORGANICS   | IN W221                      | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                               | H F                 | 25                              |
| SOLIDIFIED<br>INORGANICS   | IN W221                      | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                              | T x D                               | S                   | 33a 34                          |
| SOLIDIFIED<br>INORGANICS   | IN W222                      | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                               | H                   | 00                              |
| SOLIDIFIED<br>INORGANICS   | IN W222                      | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                               | H                   | 00                              |
| SOLIDIFIED<br>INORGANICS   | IN W222                      | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                               | H                   | 00                              |
| SOLIDIFIED<br>INORGANICS   | IN W222                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                              |
| SOLIDIFIED<br>INORGANICS   | IN W222                      | CAUSTICS x METALS & METAL COMPOUNDS,<br>TOXIC<br><br>(10 x 24)  | D x T                               | S                   | 00                              |
| SOLIDIFIED<br>INORGANICS   | IN W222                      | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                               | H F                 | 25                              |
| SOLIDIFIED<br>INORGANICS   | IN W222                      | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                              | T x D                               | S                   | 33 33a                          |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | IN W228                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                         |
| SOLIDIFIED INORGANICS   | IN W228                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                         |
| SOLIDIFIED INORGANICS   | IN W228                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | T x D                         | GT               | 3g                         |
| SOLIDIFIED INORGANICS   | IN W228                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T x D                         | GF H F           | 4                          |
| SOLIDIFIED INORGANICS   | IN W228                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | T x D                         | H F GT           | 9                          |
| SOLIDIFIED INORGANICS   | IN W228                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                      | T x D                         | H                | 10                         |
| SOLIDIFIED INORGANICS   | IN W228                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| SOLIDIFIED INORGANICS   | IN W228                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                 | D x D                         | GF H             | 15 00                      |
| SOLIDIFIED INORGANICS   | IN W228                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



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**SUMMARY OF POTENTIAL INCOMPATIBILITIES**  
**FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | IN W228                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 25                         |
| SOLIDIFIED INORGANICS   | IN W228                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33 33a                     |
| SOLIDIFIED INORGANICS   | IN W332                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | IN W347                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 15 00                      |
| SOLIDIFIED INORGANICS   | LA W002                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T3                        | H                |                            |
| SOLIDIFIED INORGANICS   | LA W002                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T2                        | S                | 00                         |
| SOLIDIFIED INORGANICS   | LA W002                | CAUSTICS x EXPLOSIVES<br><br>(10 x 102)   | D x T2                        | H E              | 00                         |
| SOLIDIFIED INORGANICS   | LA W002                | CAUSTICS x WATER REACTIVE SUBSTANCES<br><br>(10 x 107)  | D x T2                        | EXTREMELY        | 00                         |
| SOLIDIFIED INORGANICS   | LA W002                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)   | D x T2                        | H F              | 17a                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | LA W002                | ETHERS x WATER REACTIVE SUBSTANCES<br><br>(14 x 107)                                  | D x T2                        | EXTREMELY        | 17b                        |
| SOLIDIFIED INORGANICS   | LA W002                | FLUORIDES, INORGANIC x WATER REACTIVE SUBSTANCES<br><br>(15 x 107)                    | D x T2                        | EXTREMELY        | 18                         |
| SOLIDIFIED INORGANICS   | LA W002                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106) | T2 x D                        | S                | 33a 34                     |
| SOLIDIFIED INORGANICS   | LA W003                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T3                        | H                | 00                         |
| SOLIDIFIED INORGANICS   | LA W003                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)                           | D x T3                        | S                | 00                         |
| SOLIDIFIED INORGANICS   | LA W003                | CAUSTICS x EXPLOSIVES<br><br>(10 x 102)   | D x T2                        | HE               | 00                         |
| SOLIDIFIED INORGANICS   | LA W003                | CAUSTICS x WATER REACTIVE SUBSTANCES<br><br>(10 x 107)                                | D x T2                        | EXTREMELY        | 00                         |
| SOLIDIFIED INORGANICS   | LA W003                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)                                   | D x T2                        | H F              | 17a                        |
| SOLIDIFIED INORGANICS   | LA W003                | ETHERS x WATER REACTIVE SUBSTANCES<br><br>(14 x 107)                                  | D x T2                        | EXTREMELY        | 17b                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
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| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | LA W003                | FLUORIDES, INORGANIC x WATER REACTIVE SUBSTANCES<br><br>(15 x 107)  | D x T2                        | EXTREMELY        | 18                         |
| SOLIDIFIED INORGANICS   | LA W003                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                   | T3 x D                        | S                | 33 33a                     |
| SOLIDIFIED INORGANICS   | LA W003                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x EXPLOSIVES<br><br>(101 x 102)   | D x T2                        | H E              | 36d                        |
| SOLIDIFIED INORGANICS   | LA W003                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)                                   | D x T2                        | H F G            | 37                         |
| SOLIDIFIED INORGANICS   | LA W003                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x WATER REACTIVE SUBSTANCES<br><br>(101 x 107)                                  | D x T2                        | EXTREMELY        | 39                         |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS<br><br>(1 x 14)  | T2 x D                        | H                | 0aaa                       |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORGANIC<br><br>(1 x 15)  | T2 x D                        | GT               | 0aaaa                      |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(1 x 23) | T2 x D                        | GF H F           | 1                          |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101)                                | T2 x D                        | H G              | 3                          |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
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| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, NON-OXIDIZING x<br>OXIDIZING AGENTS, STRONG<br><br>(1 x 104)  | T2 x D                        | H GT             | 3aa                        |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, NON-OXIDIZING x WATER &<br>MIXTURES CONTAINING WATER<br><br>(1 x 106)                                     | T2 x D                        | H                | 3b                         |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T2 x D                        | H                |                            |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T2 x D                        | H F              | 3f                         |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, OXIDIZING x FLUORIDES,<br>INORGANIC<br><br>(2 x 15)   | T2 x D                        | GT               | 3g                         |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, OXIDIZING x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | T2 x D                        | GF H F           | 4                          |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE<br>& FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                   | T2 x D                        | H F GT           | 9                          |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, MINERAL, OXIDIZING x WATER &<br>MIXTURES CONTAINING WATER<br><br>(2 x 106)   | T2 x D                        | H                | 10                         |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, ORGANIC x CAUSTICS<br><br>(3 x 10)   | T2 x D                        | H                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

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| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, ORGANIC x FLUORIDES, INORGANIC<br><br>(3 x 15)   | T2 x D                        | GT               | 11d                       |
| SOLIDIFIED INORGANICS   | LA W006                | ACIDS, ORGANIC x OXIDIZING AGENTS, STRONG<br><br>(3 x 104)  | T2 x D                        | H GT             | 12bbb                     |
| SOLIDIFIED INORGANICS   | LA W006                | ALCOHOLS & GLYCOLS x OXIDIZING AGENTS, STRONG<br><br>(4 x 104)                                      | T2 x D                        | H F              | 12bb                      |
| SOLIDIFIED INORGANICS   | LA W006                | AMINES, ALIPHATIC & AROMATIC x OXIDIZING AGENTS, STRONG<br><br>(7 x 104)                            | T2 x D                        | H F GT           | 12d                       |
| SOLIDIFIED INORGANICS   | LA W006                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T2                        | H                | 00                        |
| SOLIDIFIED INORGANICS   | LA W006                | CAUSTICS x METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS<br><br>(10 x 21)                     | D x T                         | GF H             | 00                        |
| SOLIDIFIED INORGANICS   | LA W006                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 15 00                     |
| SOLIDIFIED INORGANICS   | LA W006                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T1                        | S                | 00                        |
| SOLIDIFIED INORGANICS   | LA W006                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T2                        | H E              | 00                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



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|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | LA W006                | CAUSTICS x EXPLOSIVES<br><br>(10 x 102)   | D x T                         | H E              | 00                         |
| SOLIDIFIED INORGANICS   | LA W006                | CAUSTICS x WATER REACTIVE SUBSTANCES<br><br>(10 x 107)  | D x T1                        | EXTREMELY        | 00                         |
| SOLIDIFIED INORGANICS   | LA W006                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)   | D x D                         | H F              | 17a                        |
| SOLIDIFIED INORGANICS   | LA W006                | ETHERS x WATER REACTIVE SUBSTANCES<br><br>(14 x 107)  | D x T1                        | EXTREMELY        | 17b                        |
| SOLIDIFIED INORGANICS   | LA W006                | FLUORIDES, INORGANIC x WATER REACTIVE SUBSTANCES<br><br>(15 x 107)  | D x T1                        | EXTREMELY        | 18                         |
| SOLIDIFIED INORGANICS   | LA W006                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T2 x D                        | H F              | 25                         |
| SOLIDIFIED INORGANICS   | LA W006                | HALOGENATED ORGANICS x OXIDIZING AGENTS, STRONG<br><br>(17 x 104)   | T2 x D                        | H GT             | 28                         |
| SOLIDIFIED INORGANICS   | LA W006                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(21 x 101) | T x D                         | H G F            | 28b                        |
| SOLIDIFIED INORGANICS   | LA W006                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x OXIDIZING AGENTS, STRONG<br><br>(21 x 104)                | T x D                         | H F E            | 28c                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

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|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | LA W006                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x WATER & MIXTURES CONTAINING WATER<br><br>(21 x 106)             | T x D                         | GF H             | 28d                        |
| SOLIDIFIED INORGANICS   | LA W006                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x OXIDIZING AGENTS, STRONG<br><br>(23 x 104)  | D x D                         | H F              | 29                         |
| SOLIDIFIED INORGANICS   | LA W006                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x WATER REACTIVE SUBSTANCES<br><br>(23 x 107) | D x T1                        | EXTREMELY        | 31                         |
| SOLIDIFIED INORGANICS   | LA W006                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                 | T1 x D                        | S                | 33a 34                     |
| SOLIDIFIED INORGANICS   | LA W006                | NITRO COMPOUNDS x OXIDIZING AGENTS, STRONG<br><br>(27 x 104)  | T2 x D                        | H E              | 36b                        |
| SOLIDIFIED INORGANICS   | LA W006                | HYDROCARBON, ALIPHATIC, SATURATED x OXIDIZING AGENTS, STRONG<br><br>(29 x 104)  | T2 x D                        | H F              | 36c                        |
| SOLIDIFIED INORGANICS   | LA W006                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x EXPLOSIVES<br><br>(101 x 102)   | D x T                         | H E              | 36d                        |
| SOLIDIFIED INORGANICS   | LA W006                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)                                 | D x D                         | H F G            | 37                         |
| SOLIDIFIED INORGANICS   | LA W006                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x WATER REACTIVE SUBSTANCES<br><br>(101 x 107)                                | D x T1                        | EXTREMELY        | 39                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

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|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | LA W006                | EXPLOSIVES x OXIDIZING AGENTS, STRONG   | T x D                         | H E              | 40                         |
|                         |                        | (102 x 104)   |                               |                  |                            |
| SOLIDIFIED INORGANICS   | LA W006                | OXIDIZING AGENTS, STRONG x WATER REACTIVE SUBSTANCES  | D x T1                        | EXTREMELY        | 41                         |
|                         |                        | (104 x 107)   |                               |                  |                            |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x ALCOHOLS & GLYCOLS  | M x T                         | H                | 0a                         |
|                         |                        | (1 x 4)   |                               |                  |                            |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x CAUSTICS  | M x D                         | H                | 0aa 00                     |
|                         |                        | (1 x 10)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS  | M x D                         | H                | 0aaa                       |
|                         |                        | (1 x 14)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORGANIC  | M x D                         | GT               | 0aaaa                      |
|                         |                        | (1 x 15)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x HALOGENATED ORGANICS  | M x T                         | H GT             | 0b                         |
|                         |                        | (1 x 17)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x KETONES   | M x T                         | H                | 0bb                        |
|                         |                        | (1 x 19)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC | M x D                         | GF H F           | 1                          |
|                         |                        | (1 x 23)  |                               |                  |                            |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER |
|-------------------------|------------------------|--|-------------------------------|------------------|----------------------|
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x METALS & METAL COMPOUNDS, TOXIC<br><br>(1 x 24)          | M x T                         | S                | 2                    |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101) | M x D                         | H G              | 3                    |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x EXPLOSIVES<br><br>(1 x 102)                              | M x T                         | H E              | 3a                   |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x OXIDIZING AGENTS, STRONG<br><br>(1 x 104)                | M x T                         | H GT             | 3aa                  |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, NON-OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(1 x 106)       | M x D                         | H                |                      |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x ACIDS, ORGANIC<br><br>(2 x 3)                                | M x T                         | G H              | 3c                   |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x ALCOHOLS & GLYCOLS<br><br>(2 x 4)                            | M x T                         | H F              | 3d                   |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)                                     | M x D                         | H                | 3e 00                |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)                                       | M x D                         | H F              | 3f                   |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANAT CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|-------------------------|
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | M x D                         | GT               | 3g                      |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x HALOGENATED ORGANICS<br><br>(2 x 17)  | M x T                         | H F GT           | 3h                      |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x KETONES<br><br>(2 x 19)   | M x T                         | H F              | 3i                      |
| SOLIDIFIED INORGANICS   | -LL W019 -             | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | M x D                         | GF H F           | 4                       |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x METALS & METAL COMPOUNDS, TOXIC<br><br>(2 x 24)   | M x T                         | S                | 6                       |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | M x D                         | H F GT           | 9                       |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x EXPLOSIVES<br><br>(2 x 102)   | M x T                         | H E              | 9a                      |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                                      | M x D                         | H                | 10 10a                  |
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, ORGANIC x CAUSTICS<br><br>(3 x 10)   | T x D                         | H                | 11b 00                  |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

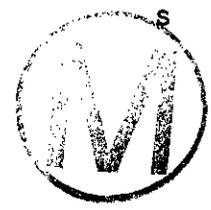


| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|--|-------------------------------|------------------|---------------------------|
| SOLIDIFIED INORGANICS   | LL W019                | ACIDS, ORGANIC x FLUORIDES, INORGANIC<br><br>(3 x 15)  | T x D                         | GT               | 11d                       |
| SOLIDIFIED INORGANICS   | LL W019                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)   | D x T                         | H                | 13 00                     |
| SOLIDIFIED INORGANICS   | LL W019                | CAUSTICS x KETONES<br><br>(10 x 19)  | D x T                         | H                | 13a 00                    |
| SOLIDIFIED INORGANICS   | LL W019                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                  | D x D                         | GF H             | 16a 00                    |
| SOLIDIFIED INORGANICS   | LL W019                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)  | D x T                         | S                | 16a 00                    |
| SOLIDIFIED INORGANICS   | LL W019                | CAUSTICS x EXPLOSIVES<br><br>(10 x 102)  | D x T                         | H E              | 16c 00                    |
| SOLIDIFIED INORGANICS   | LL W019                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)  | D x T                         | H F              | 17a                       |
| SOLIDIFIED INORGANICS   | LL W019                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)      | T x D                         | H F              | 25                        |
| SOLIDIFIED INORGANICS   | LL W019                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x OXIDIZING AGENTS, STRONG<br><br>(23 x 104) | D x T                         | H F              | 29                        |

x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | LL W019                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a 34                     |
| SOLIDIFIED INORGANICS   | LL W019                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x EXPLOSIVES<br><br>(101 x 102)                             | D x T                         | H E              | 36d                        |
| SOLIDIFIED INORGANICS   | LL W019                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)               | D x T                         | H F G            | 37                         |
| SOLIDIFIED INORGANICS   | MD W002                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | OR W042                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | OR W042                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| SOLIDIFIED INORGANICS   | OR W042                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33 33a                     |
| SOLIDIFIED INORGANICS   | OR W046                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | OR W046                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |



x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | OR W046                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                        |
| SOLIDIFIED INORGANICS   | PA W014                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | PA W015                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | PA W015                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| SOLIDIFIED INORGANICS   | PA W015                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a 34                     |
| SOLIDIFIED INORGANICS   | PAW015A                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | RF M001                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T1                        | H                | 00                         |
| SOLIDIFIED INORGANICS   | RF M001                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | RF M001                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T1                        | S                | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX<br>CODE GROUP | WASTE<br>STREAM<br>UNIQUE ID | POTENTIAL CHEMICAL<br>COMPATIBILITY REACTION  | CONCENTRATION<br>OF<br>REACTANTS(a) | REACTION<br>CODE(b) | EXPLANATI<br>CODE<br>NUMBER(c) |
|----------------------------|------------------------------|---|-------------------------------------|---------------------|--------------------------------|
| SOLIDIFIED<br>INORGANICS   | RF M001                      | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T1 x D                              | H F                 | 19                             |
| SOLIDIFIED<br>INORGANICS   | RF M001                      | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                              | T1 x D                              | S                   | 33a                            |
| SOLIDIFIED<br>INORGANICS   | RF W010                      | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T1                              | H                   | 00                             |
| SOLIDIFIED<br>INORGANICS   | RF W010                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                             |
| SOLIDIFIED<br>INORGANICS   | RF W010                      | CAUSTICS x METALS & METAL COMPOUNDS,<br>TOXIC<br><br>(10 x 24)  | D x T                               | S                   | 00                             |
| SOLIDIFIED<br>INORGANICS   | RF W010                      | CAUSTICS x ORHANOPHOSPHATES,<br>PHOSPHOTHIOATES &<br>PHOSPHODITHIOATES<br><br>(10 x 32)                               | D x T3                              | H E                 | 00                             |
| SOLIDIFIED<br>INORGANICS   | RF W010                      | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T1 x D                              | H F                 | 19                             |
| SOLIDIFIED<br>INORGANICS   | RF W010                      | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                              | T x D                               | S                   | 33a                            |
| SOLIDIFIED<br>INORGANICS   | RF W038                      | ACIDS, ORGANIC x CAUSTICS<br><br>(3 x 10)   | T x D                               | H                   | 00                             |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIO CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SOLIDIFIED INORGANICS   | RF W038                | ACIDS, ORGANIC x FLUORIDES, INORGANIC<br><br>(3 x 15)   | T x D                         | GT               | 11d                       |
| SOLIDIFIED INORGANICS   | RF W038                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | RF W038                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| SOLIDIFIED INORGANICS   | RF W038                | CAUSTICS x ORPHANOPHOSPHATES, PHOSPHOTHIOATES & PHOSPHODITHIOATES<br><br>(10 x 32)                  | D x T                         | H E              | 00                        |
| SOLIDIFIED INORGANICS   | RF W040                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | RF W040                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | RF W040                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| SOLIDIFIED INORGANICS   | RF W040                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| SOLIDIFIED INORGANICS   | RF W040                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | H E              | 00                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | RF W040                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 26                         |
| SOLIDIFIED INORGANICS   | RF W040                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |
| SOLIDIFIED INORGANICS   | RF W059                | CAUSTICS x METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS<br><br>(10 x 21)                                 | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | RF W059                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| SOLIDIFIED INORGANICS   | RF W059                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| SOLIDIFIED INORGANICS   | RF W059                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(21 x 101) | D x D                         | H G F            | 28b                        |
| SOLIDIFIED INORGANICS   | RF W059                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x WATER & MIXTURES CONTAINING WATER<br><br>(21 x 106)       | D x D                         | GF H             | 28d                        |
| SOLIDIFIED INORGANICS   | RF W059                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                        |
| SOLIDIFIED INORGANICS   | RF W063                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SOLIDIFIED INORGANICS   | RF W063                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| SOLIDIFIED INORGANICS   | RF W063                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33 33a 34                 |
| SOLIDIFIED INORGANICS   | RF W065                | CAUSTICS x METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS<br><br>(10 x 21)                                 | D x D                         | GF H             | 00                        |
| SOLIDIFIED INORGANICS   | RF W065                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| SOLIDIFIED INORGANICS   | RF W065                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(21 x 101) | D x D                         | H G F            | 28b                       |
| SOLIDIFIED INORGANICS   | RF W065                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x WATER & MIXTURES CONTAINING WATER<br><br>(21 x 106)       | D x D                         | GF H             | 28d                       |
| SOLIDIFIED INORGANICS   | RF W068                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | RF W068                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | RF W068                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |

x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SOLIDIFIED INORGANICS   | RF W068                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| SOLIDIFIED INORGANICS   | RF W068                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | HE               | 00                        |
| SOLIDIFIED INORGANICS   | RF W068                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | HF               | 19                        |
| SOLIDIFIED INORGANICS   | RF W068                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a 34                    |
| SOLIDIFIED INORGANICS   | RF W076                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | RF W076                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | RF W076                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| SOLIDIFIED INORGANICS   | RF W076                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| SOLIDIFIED INORGANICS   | RF W076                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | HE               | 00                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SOLIDIFIED INORGANICS   | RF W076                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 19                        |
| SOLIDIFIED INORGANICS   | RF W076                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33 33a                    |
| SOLIDIFIED INORGANICS   | RL M005                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| SOLIDIFIED INORGANICS   | RL M005                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x M                         | S                | 00                        |
| SOLIDIFIED INORGANICS   | RL M005                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | M x D                         | S                | 33a-24                    |
| SOLIDIFIED INORGANICS   | RL M032                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | RL M032                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                        |
| SOLIDIFIED INORGANICS   | RL M032                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| SOLIDIFIED INORGANICS   | RL M032                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION  | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|--|-------------------------------|------------------|----------------------------|
| SOLIDIFIED INORGANICS   | RL M032                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER                            | T x D                         | S                | 33a                        |
|                         |                        | (24 x 106)   |                               |                  |                            |
| SOLIDIFIED INORGANICS   | SR W053                | CAUSTICS x HALOGENATED ORGANICS  | D x T                         | H                | 00                         |
|                         |                        | (10 x 17)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | SR W053                | CAUSTICS x KETONES   | D x T                         | H                | 00                         |
|                         |                        | (10 x 19)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | SR W053                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC             | D x D                         | GF H             | 00                         |
|                         |                        | (10 x 23)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | SR W053                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC   | D x T                         | S                | 00                         |
|                         |                        | (10 x 24)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | SR W053                | CAUSTICS x NITRO COMPOUNDS   | D x T                         | HE               | 00                         |
|                         |                        | (10 x 27)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | SR W053                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC | T x D                         | HF               | 19                         |
|                         |                        | (17 x 23)  |                               |                  |                            |
| SOLIDIFIED INORGANICS   | SR W053                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER                            | T x D                         | S                | 33a                        |
|                         |                        | (24 x 106)   |                               |                  |                            |
| SOLIDIFIED ORGANICS     | IN W167                | CAUSTICS x HALOGENATED ORGANICS  | D x D                         | H                | 00                         |
|                         |                        | (10 x 17)  |                               |                  |                            |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIO CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SOLIDIFIED ORGANICS     | IN W167                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)                 | D x D                         | GF H             | 00                        |
| SOLIDIFIED ORGANICS     | IN W167                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| SOLIDIFIED ORGANICS     | IN W167                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)     | D x D                         | H F              | 23                        |
| SOLIDIFIED ORGANICS     | IN W167                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                               | T x D                         | S                | 33a                       |
| SOLIDIFIED ORGANICS     | IN W174                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | D x D                         | H                | 00                        |
| SOLIDIFIED ORGANICS     | IN W174                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | D x D                         | H F              | 3f                        |
| SOLIDIFIED ORGANICS     | IN W174                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORGANIC<br><br>(2 x 15)  | D x D                         | GT               | 3g                        |
| SOLIDIFIED ORGANICS     | IN W174                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23) | D x D                         | GF H F           | 4                         |
| SOLIDIFIED ORGANICS     | IN W174                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                | D x D                         | H F GT           | 9                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| <b>WASTE MATRIX<br/>CODE GROUP</b> | <b>WASTE<br/>STREAM<br/>UNIQUE ID</b> | <b>POTENTIAL CHEMICAL<br/>COMPATIBILITY REACTION</b>  | <b>CONCENTRATION<br/>OF<br/>REACTANTS(a)</b> | <b>REACTION<br/>CODE(b)</b> | <b>EXPLANATI<br/>CODE<br/>NUMBER(c)</b> |
|------------------------------------|---------------------------------------|---|--|-----------------------------|---|
| SOLIDIFIED<br>ORGANICS             | IN W174                               | ACIDS, MINERAL, OXIDIZING x WATER &<br>MIXTURES CONTAINING WATER<br><br>(2 x 106)                                     | D x D  | H                           | 10a                                     |
| SOLIDIFIED<br>ORGANICS             | IN W174                               | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D  | GF H                        | 00                                      |
| SOLIDIFIED<br>ORGANICS             | IN W309                               | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x D  | H                           | 00                                      |
| SOLIDIFIED<br>ORGANICS             | IN W309                               | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D  | GF H                        | 00                                      |
| SOLIDIFIED<br>ORGANICS             | IN W309                               | CAUSTICS x METALS & METAL COMPOUNDS,<br>TOXIC<br><br>(10 x 24)  | D x T  | S                           | 00                                      |
| SOLIDIFIED<br>ORGANICS             | IN W309                               | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | D x D  | H F                         | 23                                      |
| SOLIDIFIED<br>ORGANICS             | IN W309                               | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                              | T x D  | S                           | 33a                                     |
| SOLIDIFIED<br>ORGANICS             | RF W013                               | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x D  | H                           | 00                                      |
| SOLIDIFIED<br>ORGANICS             | RF W013                               | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D  | GF H                        | 00                                      |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



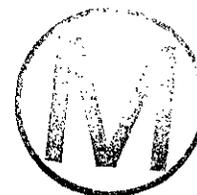
**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| SOLIDIFIED ORGANICS     | RF W013                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | D x D                         | H F              | 25                        |
| SOLIDIFIED ORGANICS     | RF W069                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                        |
| SOLIDIFIED ORGANICS     | RF W069                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                        |
| SOLIDIFIED ORGANICS     | RF W069                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| SOLIDIFIED ORGANICS     | RF W069                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | H E              | 00                        |
| SOLIDIFIED ORGANICS     | RF W069                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 23 26                     |
| SOLIDIFIED ORGANICS     | RL M017                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                        |
| SOLIDIFIED ORGANICS     | RL M017                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                        |
| SOLIDIFIED ORGANICS     | RL M017                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |

x=Combined with  
 (a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
 (b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive  
 (c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| SOLIDIFIED ORGANICS     | RL M018                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| SOLIDIFIED ORGANICS     | RL M024                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| SOLIDIFIED ORGANICS     | SR W006                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | AW W018                | CAUSTICS x METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS<br><br>(10 x 21)                                 | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | AW W018                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | AW W018                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(21 x 101) | D x D                         | H G F            | 28b                        |
| UNCATEGORIZED METAL     | AW W018                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x WATER & MIXTURES CONTAINING WATER<br><br>(21 x 106)       | D x D                         | GF H             | 28d                        |
| UNCATEGORIZED METAL     | AW W019                | CAUSTICS x METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS<br><br>(10 x 21)                                 | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | AW W019                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| UNCATEGORIZED METAL     | AW W019                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(21 x 101) | D x D                         | H G F            | 28b                       |
| UNCATEGORIZED METAL     | AW W019                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x WATER & MIXTURES CONTAINING WATER<br><br>(21 x 106)       | D x D                         | GF H             | 28d                       |
| UNCATEGORIZED METAL     | AW W021                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| UNCATEGORIZED METAL     | AW W021                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| UNCATEGORIZED METAL     | AW W021                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33                        |
| UNCATEGORIZED METAL     | IN M003                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| UNCATEGORIZED METAL     | IN W280                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| UNCATEGORIZED METAL     | IN W280                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| UNCATEGORIZED METAL     | IN W280                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                       |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| UNCATEGORIZED METAL     | IN W287                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | IN W287                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x M                         | S                | 00                         |
| UNCATEGORIZED METAL     | IN W287                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | M x D                         | S                | 33a                        |
| UNCATEGORIZED METAL     | IN W294                | AMINES, ALIPHATIC & AROMATIC x HALOGENATED ORGANICS<br><br>(7 x 17)                                 | D x D                         | H G              | 12b                        |
| UNCATEGORIZED METAL     | IN W294                | AMINES, ALIPHATIC & AROMATIC x METALS & METAL COMPOUNDS, TOXIC<br><br>(7 x 24)                      | D x D                         | S                | 12c                        |
| UNCATEGORIZED METAL     | IN W294                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x D                         | H                | 00                         |
| UNCATEGORIZED METAL     | IN W294                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | IN W294                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| UNCATEGORIZED METAL     | IN W294                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x D                         | H E              | 00                         |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| UNCATEGORIZED METAL     | IN W294                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | D x D                         | H F              | 24                        |
| UNCATEGORIZED METAL     | IN W294                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                       |
| UNCATEGORIZED METAL     | IN W296                | AMINES, ALIPHATIC & AROMATIC x METALS & METAL COMPOUNDS, TOXIC<br><br>(7 x 24)                                  | T x D                         | S                | 12c                       |
| UNCATEGORIZED METAL     | IN W296                | CAUSTICS x ESTERS<br><br>(10 x 13)  | D x T                         | H                | 00                        |
| UNCATEGORIZED METAL     | IN W296                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                        |
| UNCATEGORIZED METAL     | IN W296                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                        |
| UNCATEGORIZED METAL     | IN W296                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| UNCATEGORIZED METAL     | IN W296                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                        |
| UNCATEGORIZED METAL     | IN W296                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | H E              | 00                        |

x=Combined with

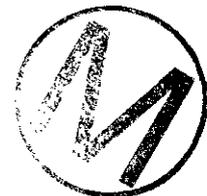
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| UNCATEGORIZED METAL     | IN W296                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 24                         |
| UNCATEGORIZED METAL     | IN W296                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                        |
| UNCATEGORIZED METAL     | IN W298                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| UNCATEGORIZED METAL     | IN W298                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | IN W298                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                         |
| UNCATEGORIZED METAL     | IN W298                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | H F              | 24                         |
| UNCATEGORIZED METAL     | IN W298                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                        |
| UNCATEGORIZED METAL     | IN W300                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T1                        | H                | 00                         |
| UNCATEGORIZED METAL     | IN W300                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |



x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX<br>CODE GROUP | WASTE<br>STREAM<br>UNIQUE ID | POTENTIAL CHEMICAL<br>COMPATIBILITY REACTION  | CONCENTRATION<br>OF<br>REACTANTS(a) | REACTION<br>CODE(b) | EXPLANATIO<br>CODE<br>NUMBER(c) |
|----------------------------|------------------------------|---|-------------------------------------|---------------------|---------------------------------|
| UNCATEGORIZED<br>METAL     | IN W300                      | CAUSTICS x METALS & METAL COMPOUNDS,<br>TOXIC<br><br>(10 x 24)  | D x D                               | S                   | 00                              |
| UNCATEGORIZED<br>METAL     | IN W300                      | HALOGENATED ORGANICS x METALS,<br>OTHER ELEMENTAL, & ALLOY, AS SHEETS,<br>RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T1 x D                              | HF                  | 24                              |
| UNCATEGORIZED<br>METAL     | IN W300                      | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                              | D x D                               | S                   | 33a                             |
| UNCATEGORIZED<br>METAL     | IN W322                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                              |
| UNCATEGORIZED<br>METAL     | INW260A                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                              |
| UNCATEGORIZED<br>METAL     | LA W001                      | ALDEHYDES x CAUSTICS<br><br>(5 x 10)  | T2 x D                              | H                   | 00                              |
| UNCATEGORIZED<br>METAL     | LA W001                      | CAUSTICS x METALS, OTHER ELEMENTAL, &<br>ALLOY, AS SHEETS, RODS, MOLDINGS,<br>DROPS, ETC<br><br>(10 x 23)             | D x D                               | GF H                | 00                              |
| UNCATEGORIZED<br>METAL     | LA W001                      | CAUSTICS x METALS & METAL COMPOUNDS,<br>TOXIC<br><br>(10 x 24)  | D x D                               | S                   | 00                              |
| UNCATEGORIZED<br>METAL     | LA W001                      | METALS & METAL COMPOUNDS, TOXIC x<br>WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                              | D x D                               | S                   | 33a                             |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS<br><br>(1 x 14)  | T2 x D                        | H                | 0aaa                       |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORANIC<br><br>(1 x 15)   | T2 x D                        | GT               | 0aaaa                      |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(1 x 23) | T2 x D                        | GF H F           | 1                          |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101)                                | T2 x D                        | H G              | 3                          |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, NON-OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(1 x 106)                                      | T2 x D                        | H                | 3b                         |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T2 x D                        | H F              | 3f                         |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORANIC<br><br>(2 x 15)   | T2 x D                        | GT               | 3g                         |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23)     | T2 x D                        | GF H F           | 5                          |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                    | T2 x D                        | H F GT           | 8                          |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| UNCATEGORIZED METAL     | LA W005                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                      | T2 x D                        | H                | 10a                        |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, ORGANIC x CAUSTICS<br><br>(3 x 10)   | T2 x D                        | H                | 00                         |
| UNCATEGORIZED METAL     | LA W005                | ACIDS, ORGANIC x FLUORIDES, INORGANIC<br><br>(3 x 15)   | T2 x D                        | GT               | 11d                        |
| UNCATEGORIZED METAL     | LA W005                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T2                        | H                | 00                         |
| UNCATEGORIZED METAL     | LA W005                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T2                        | H                | 00                         |
| UNCATEGORIZED METAL     | LA W005                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 15                         |
| UNCATEGORIZED METAL     | LA W005                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |
| UNCATEGORIZED METAL     | LA W005                | CAUSTICS x ORTHOPHOSPHATES, PHOSPHOTHIOATES & PHOSPHODITHIOATES<br><br>(10 x 32)                    | D x T2                        | H E              | 00                         |
| UNCATEGORIZED METAL     | LA W005                | CAUSTICS x WATER REACTIVE SUBSTANCES<br><br>(10 x 107)  | D x T2                        | EXTREMELY        | 00                         |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIC CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| UNCATEGORIZED METAL     | LA W005                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)   | D x T2                        | H F              | 17a                       |
| UNCATEGORIZED METAL     | LA W005                | ETHERS x WATER REACTIVE SUBSTANCES<br><br>(14 x 107)  | D x T2                        | EXTREMELY        | 17b                       |
| UNCATEGORIZED METAL     | LA W005                | FLUORIDES, INORANIC x WATER REACTIVE SUBSTANCES<br><br>(15 x 107)   | D x T2                        | EXTREMELY        | 18                        |
| UNCATEGORIZED METAL     | LA W005                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)       | T2 x D                        | H F              | 24                        |
| UNCATEGORIZED METAL     | LA W005                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x OXIDIZING AGENTS, STRONG<br><br>(23 x 104)  | D x T2                        | H F              | 30                        |
| UNCATEGORIZED METAL     | LA W005                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x WATER REACTIVE SUBSTANCES<br><br>(23 x 107) | D x T2                        | EXTREMELY        | 32                        |
| UNCATEGORIZED METAL     | LA W005                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                                 | T x D                         | S                | 33a                       |
| UNCATEGORIZED METAL     | LA W005                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)                                 | D x T2                        | H F G            | 38                        |
| UNCATEGORIZED METAL     | LA W005                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x WATER REACTIVE SUBSTANCES<br><br>(101 x 107)                                | D x T2                        | EXTREMELY        | 39                        |



x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text



**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| UNCATEGORIZED METAL     | LA W009                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| UNCATEGORIZED METAL     | LA W009                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                         |
| UNCATEGORIZED METAL     | LA W009                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | LA W009                | CAUSTICS x NITRO COMPOUNDS<br><br>(10 x 27)   | D x T                         | HE               | 00                         |
| UNCATEGORIZED METAL     | LA W009                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T x D                         | HF               | 2                          |
| UNCATEGORIZED METAL     | LA WR01                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | LA WR05                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, NON-OXIDIZING x CAUSTICS<br><br>(1 x 10)  | T x D                         | H                | 00                         |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, NON-OXIDIZING x ETHERS<br><br>(1 x 14)  | T x D                         | H                | 00aaa                      |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, NON-OXIDIZING x FLUORIDES, INORANIC<br><br>(1 x 15)   | T x D                         | GT               | 0aaa                       |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, NON-OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(1 x 23) | T x D                         | GF H F           | 1                          |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, NON-OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(1 x 101)                                | T x D                         | H G              | 3                          |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, NON-OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(1 x 106)                                      | T x D                         | H                | 3b                         |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, OXIDIZING x CAUSTICS<br><br>(2 x 10)  | T x D                         | H                | 00                         |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, OXIDIZING x ETHERS<br><br>(2 x 14)  | T x D                         | H F              | 3f                         |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, OXIDIZING x FLUORIDES, INORANIC<br><br>(2 x 15)   | T x D                         | GT               | 3g                         |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, OXIDIZING x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(2 x 23)     | T x D                         | GF H F           | 5                          |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, OXIDIZING x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(2 x 101)                                    | T x D                         | H F GT           | 8                          |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G= nonflammable gas generation; GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



**TABLE C1-1  
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| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| UNCATEGORIZED METAL     | LL W018                | ACIDS, MINERAL, OXIDIZING x WATER & MIXTURES CONTAINING WATER<br><br>(2 x 106)                        | T x D                         | H                | 10a                        |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, ORGANIC x CAUSTICS<br><br>(3 x 10)   | T x D                         | H                | 00                         |
| UNCATEGORIZED METAL     | LL W018                | ACIDS, ORGANIC x FLUORIDES, INORGANIC<br><br>(3 x 15)   | T x D                         | GT               | 11d                        |
| UNCATEGORIZED METAL     | LL W018                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T                         | H                | 00                         |
| UNCATEGORIZED METAL     | LL W018                | CAUSTICS x KETONES<br><br>(10 x 19)   | D x T                         | H                | 00                         |
| UNCATEGORIZED METAL     | LL W018                | CAUSTICS x METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS<br><br>(10 x 21)                       | D x T                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | LL W018                | CAUSTICS x METALS OTHER ELEMENTAL & ALLOYS IN THE FORM OF POWDERS, VAPORS OR SPONGES<br><br>(10 x 22) | D x T                         | GF H             | 00                         |
| UNCATEGORIZED METAL     | LL W018                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)   | D x D                         | GF H             | 15 00                      |
| UNCATEGORIZED METAL     | LL W018                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                         |

x=Combined with  
(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range);  
M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)  
(b) Reaction code: H=heat generation; S=solubilization of toxic substances; F=fire; GF=flammable gas generation; G=nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive  
(c) See text

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SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**

| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATION CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|----------------------------|
| UNCATEGORIZED METAL     | LL W018                | CAUSTICS x EXPLOSIVES<br><br>(10 x 102)   | D x T                         | H E              | 00                         |
| UNCATEGORIZED METAL     | LL W018                | ETHERS x OXIDIZING AGENTS, STRONG<br><br>(14 x 104)   | D x T                         | H F              | 17a                        |
| UNCATEGORIZED METAL     | LL W018                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23)                 | T x D                         | H F              | 22                         |
| UNCATEGORIZED METAL     | LL W018                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x COMBUSTIBLE & FLAMMABLE MATERIALS, MISC<br><br>(21 x 101)                 | T x D                         | H G F            | 28b                        |
| UNCATEGORIZED METAL     | LL W018                | METALS, ALKALI & ALKALINE EARTH, ELEMENTAL & ALLOYS x WATER & MIXTURES CONTAINING WATER<br><br>(21 x 106)                       | T x D                         | GF H             | 28d                        |
| UNCATEGORIZED METAL     | LL W018                | METALS OTHER ELEMENTAL & ALLOYS IN THE FORM OF POWDERS, VAPORS OR SPONGES x WATER & MIXTURES CONTAINING WATER<br><br>(22 x 106) | T x D                         | GF H             | 28e                        |
| UNCATEGORIZED METAL     | LL W018                | METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC x OXIDIZING AGENTS, STRONG<br><br>(23 x 104)            | D x T                         | H F              | 30                         |
| UNCATEGORIZED METAL     | LL W018                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)   | T x D                         | S                | 33a                        |
| UNCATEGORIZED METAL     | LL W018                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x EXPLOSIVES<br><br>(101 x 102)   | D x T                         | H E              | 36d                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text

**TABLE C1-1  
SUMMARY OF POTENTIAL INCOMPATIBILITIES  
FOR WASTE FORMS AND CONTAINER**



| WASTE MATRIX CODE GROUP | WASTE STREAM UNIQUE ID | POTENTIAL CHEMICAL COMPATIBILITY REACTION   | CONCENTRATION OF REACTANTS(a) | REACTION CODE(b) | EXPLANATIO CODE NUMBER(c) |
|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| UNCATEGORIZED METAL     | LL W018                | COMBUSTIBLE & FLAMMABLE MATERIALS, MISC x OXIDIZING AGENTS, STRONG<br><br>(101 x 104)                           | D x T                         | H F G            | 38                        |
| UNCATEGORIZED METAL     | RF W011                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T1                        | H                | 00                        |
| UNCATEGORIZED METAL     | RF W011                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| UNCATEGORIZED METAL     | RF W011                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                        |
| UNCATEGORIZED METAL     | RF W011                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T1 x D                        | H F              | 21                        |
| UNCATEGORIZED METAL     | RF W011                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                       |
| UNCATEGORIZED METAL     | RF W037                | CAUSTICS x HALOGENATED ORGANICS<br><br>(10 x 17)  | D x T1                        | H                | 00                        |
| UNCATEGORIZED METAL     | RF W037                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                        |
| UNCATEGORIZED METAL     | RF W037                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x D                         | S                | 00                        |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

(c) See text



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FOR WASTE FORMS AND CONTAINER**

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|-------------------------|------------------------|---|-------------------------------|------------------|----------------------|
| UNCATEGORIZED METAL     | RF W037                | HALOGENATED ORGANICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(17 x 23) | T1 x D                        | H F              | 24                   |
| UNCATEGORIZED METAL     | RF W037                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | D x D                         | S                | 33a                  |
| UNCATEGORIZED METAL     | RL M001                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                   |
| UNCATEGORIZED METAL     | RL M001                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |
| UNCATEGORIZED METAL     | RL M001                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                  |
| UNCATEGORIZED METAL     | RL M002                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                   |
| UNCATEGORIZED METAL     | RL M002                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                   |
| UNCATEGORIZED METAL     | RL M002                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)                           | T x D                         | S                | 33a                  |
| UNCATEGORIZED METAL     | RL M003                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23)             | D x D                         | GF H             | 00                   |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

(b) Reaction code: H=heat generation; S= solubilization of toxic substances; F=fire; GF= flammable gas generation; G= nonflammable gas generation  
GT=toxic gas generation; P=violent polymerization; E=explosive

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|-------------------------|------------------------|---|-------------------------------|------------------|---------------------------|
| UNCATEGORIZED METAL     | RL M008                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| UNCATEGORIZED METAL     | RL M008                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| UNCATEGORIZED METAL     | RL M008                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                       |
| UNCATEGORIZED METAL     | RL M021                | CAUSTICS x METALS, OTHER ELEMENTAL, & ALLOY, AS SHEETS, RODS, MOLDINGS, DROPS, ETC<br><br>(10 x 23) | D x D                         | GF H             | 00                        |
| UNCATEGORIZED METAL     | RL M021                | CAUSTICS x METALS & METAL COMPOUNDS, TOXIC<br><br>(10 x 24)   | D x T                         | S                | 00                        |
| UNCATEGORIZED METAL     | RL M021                | METALS & METAL COMPOUNDS, TOXIC x WATER & MIXTURES CONTAINING WATER<br><br>(24 x 106)               | T x D                         | S                | 33a                       |

x=Combined with

(a) Concentration of reactants: T=Trace (<1% by wt.); T1=Trace (<0.1% by wt.); T2=Trace (low ppm range); T3=Trace (<1 ppm range); M=Minor (1-10% by wt.); D=Dominant (>10% by wt.)

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