Fumigant Marking
§172.302(g) and §173.9

NOTE: This document is for general guidance only and should not be used to determine compliance with 49 CFR, Parts 100-185.

Hazardous Materials Markings

Package Orientation (Red or Black)

Keep Away from Heat

Fumigant Marking

Inhalation Hazard

Biological Substances, Category B

NEW Lithium battery handling marking, Transition December 31, 2018

Marine Pollutant

Limited Quantity

ORM-D, Transition December 31, 2020

Excepted Quantity

Marking of IBCs

ORM-D

ORM-D (As Only)

UN1755

UN3373

UN1755

§172.312(a)

§172.317

§172.313(a)

§173.25(a)(4)

§173.25(a)(4)

§173.199 (a)(5)

§172.325

§172.332(a)

§173.109 (a)(5)

§172.315

§172.316

§172.185

§172.322

§173.185

§173.4a(g)

§178.703(b)(7)(i)
Hazardous Materials Warning Labels

Actual label size: at least 100 mm (3.9 inches) on all sides

**CLASS 1** Explosives:
Divisions 1.1, 1.2, 1.3, 1.4, 1.5, 1.6

CLASS 2 Gases:
Divisions 2.1, 2.2, 2.3

CLASS 3 Flammable Liquid

CLASS 4 Flammable Solid, Spontaneously Combustible, and Dangerous When Wet:
Divisions 4.1, 4.2, 4.3

CLASS 5 Oxidizer, Organic Peroxide:
Divisions 5.1 and 5.2

CLASS 6 Poison (Toxic), Poison Inhalation Hazard, Infectious Substance:
Divisions 6.1 and 6.2

CLASS 7 Radioactive

CLASS 8 Corrosive

CLASS 9 Miscellaneous Hazardous Material

Cargo Aircraft Only

For Regulated Medical Waste (RMW), an Infectious Substance label is not required on an outer packaging if the OSHA Biohazard marking is used as prescribed in 29 CFR 1910.1030(g). A bulk package of RMW must display a BIOHAZARD marking.

Effective January 2019, the NEW Class 9 lithium battery handling label must be used for lithium battery shipments.
Hazardous Materials Warning Placards
Actual placard size: at least 250 mm (9.84 inches) on all sides

CLASS 1 Explosives


For Explosives (Division 1.1, 1.2, or 1.3), enter division number and compatibility group letter, when required, placard any quantity. For Explosives (Division 1.4, 1.5, and 1.6), enter compatibility group letter, when required, placard any quantity.

CLASS 2 Gases

§172.504(f)(2), §172.528, §172.530, §172.532, §172.540

For Non-Flammable Gas, Oxygen (compressed gas or refrigerated liquid), and Flammable Gas, placard 454 kg (1,001 lbs.) or more gross weight. For Poison Gas (Division 2.3), placard any quantity.

CLASS 3 Flammable Liquid and Combustible Liquid

§172.504(f)(2), §172.542, §172.544

For Flammable Gasoline, placard 454 kg (1,001 lbs.) or more. Gasoline may be used in place of Flammable placard displayed on a cargo tank or portable tank transporting gasoline by highway. Placard combustible liquid transported in bulk. See §172.504(f)(2) for use of Flammable placard in place of Combustible. Fuel Oil may be used in place of Combustible on a cargo or portable tank transporting fuel oil not classed as a flammable liquid by highway.

CLASS 4 Flammable Solid, Spontaneously Combustible, and Dangerous When Wet


For Flammable Solid and Spontaneously Combustible, placard 454 kg (1,001 lbs.) or more. For Dangerous When Wet (Division 4.3), placard any quantity.

CLASS 5 Oxidizer & Organic Peroxide

§172.550, §172.552

For Oxidizer and Organic Peroxide (other than Type B, temperature controlled), placard 454 kg (1,001 lbs.) or more. For Organic Peroxide (Division 5.2), Type B, temperature controlled, placard any quantity.

CLASS 6 Poison (Toxic) and Poison Inhalation Hazard

§172.504(f)(10), §172.554, §172.555

For Poison (PG I or PG II, other than inhalation hazard) and Poison (PG III), placard 454 kg (1,001 lbs.) or more. For Poison/Inhalation Hazard (Division 6.1), inhalation hazard only, placard any quantity.

CLASS 7 Radioactive

§172.556

Placard any quantity - packages bearing Radioactive Yellow III labels only. Certain low-specific-activity radioactive materials in “exclusive use” will not bear the label, but the radioactive placard is required for exclusive use shipments of low-specific-activity material and surface-contaminated objects transported in accordance with §172.504(e) of Table 1 and §172.427(a)(3).

CLASS 8 Corrosive

§172.558

For Corrosive, placard 454 kg (1,001 lbs.) or more. Not required for domestic transportation. A bulk package containing a Class 9 material must be marked with the appropriate ID number displayed on a Class 9 placard, an orange panel, or a white square-on-point display.

CLASS 9 Miscellaneous

§172.560

A freight container, unit load device, transport vehicle, or rail car that contains non-bulk packages with two or more categories of hazardous materials that require different placards specified in Table 2 §172.504(e) may be placarded with Dangerous placards instead of the specific placards required for each of the materials in Table 2. However, when 1,000 kg (2,205 lbs.) or more of one category of material is loaded at one loading facility, the placard specified in Table 2 must be applied.

Limited Quantity Marking

§172.315(o)(2)

(Vessel transport only)

Safety begins with communication!
### General Guidelines on Use of Warning Labels and Placards

#### LABELS

See 49 CFR, Part 172, Subpart E, for complete labeling regulations.

- The Hazardous Materials Table (§172.101, Col. 6) identifies the proper label(s) for the hazardous material listed.
- Any person who offers a hazardous material for transportation MUST label the package, if required (§172.400(a)).
- Labels may be affixed to packages when not required by regulations, provided each label represents a hazard of the material contained in the package (§172.401).
- For labeling mixed or consolidated packages, see §172.404.
- The appropriate hazard class or division number must be displayed in the lower corner of a primary and subsidiary hazard label (§172.402(b)).
- For classes 1, 2, 3, 4, 5, 6, 8, and 9, text indicating a hazard (e.g., "CORROSIVE") is NOT required on a primary or subsidiary label. The label must otherwise conform to Subpart E of Part 172 (§172.405).
- Labels must be printed on or affixed to the surface of the package near the proper shipping name marking (§172.406(a)).
- When primary and subsidiary labels are required, they must be displayed next to each other (§172.406(c)).
- For a package containing a Division 6.1, PG III material, the POISON label specified in §172.430 may be modified to display the text PG III instead of POISON or TOXIC. Also see §172.405(c).
- The ORGANIC PEROXIDE label (§172.427) indicates that organic peroxides are highly flammable. Use of the ORGANIC PEROXIDE label eliminates the need for a flammable liquid subsidiary label. The color of the border must be black and the color of the flame may be black or white.

#### Placarding Tables

[§172.504(e)]

<table>
<thead>
<tr>
<th>Category of material (Hazard Class or division number and additional description, as appropriate)</th>
<th>Placard name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>EXPLOSIVES 1.1</td>
</tr>
<tr>
<td>1.2</td>
<td>EXPLOSIVES 1.2</td>
</tr>
<tr>
<td>1.3</td>
<td>EXPLOSIVES 1.3</td>
</tr>
<tr>
<td>2.1</td>
<td>POISON GAS</td>
</tr>
<tr>
<td>2.2</td>
<td>DANGEROUS WHEN WET</td>
</tr>
<tr>
<td>2.3</td>
<td>ORGANIC PEROXIDE</td>
</tr>
<tr>
<td>2.4</td>
<td>POISON INHALATION HAZARD</td>
</tr>
<tr>
<td>2.5</td>
<td>RADIOACTIVE</td>
</tr>
<tr>
<td>2.6</td>
<td>FLAMMABLE</td>
</tr>
<tr>
<td>2.7</td>
<td>COMBUSTIBLE</td>
</tr>
<tr>
<td>2.8</td>
<td>FLAMMABLE SOLID</td>
</tr>
<tr>
<td>2.9</td>
<td>EXPLOSIVES 1.4</td>
</tr>
<tr>
<td>3</td>
<td>EXPLOSIVES 1.5</td>
</tr>
<tr>
<td>4</td>
<td>EXPLOSIVES 1.6</td>
</tr>
<tr>
<td>5</td>
<td>NONFLAMMABLE GAS</td>
</tr>
<tr>
<td>5.1</td>
<td>FLAMMABLE</td>
</tr>
<tr>
<td>5.2</td>
<td>COMBUSTIBLE</td>
</tr>
<tr>
<td>6</td>
<td>FLAMMABLE SOLID</td>
</tr>
<tr>
<td>6.1</td>
<td>SPONTANEOUSLY COMBUSTIBLE</td>
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<tr>
<td>6.2</td>
<td>OXIDIZER</td>
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<td>6.3</td>
<td>ORGANIC PEROXIDE</td>
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<tr>
<td>6.4</td>
<td>POISON</td>
</tr>
<tr>
<td>6.5</td>
<td>[None]</td>
</tr>
<tr>
<td>6.6</td>
<td>CORROSIVE</td>
</tr>
<tr>
<td>6.7</td>
<td>Class 9 (See §172.504(f)(9))</td>
</tr>
<tr>
<td>6.8</td>
<td>[None]</td>
</tr>
<tr>
<td>6.9</td>
<td>ORMAD</td>
</tr>
</tbody>
</table>

1 RADIOACTIVE placard also required for exclusive-use shipments of low-specific-activity material and surface-contaminated objects transported in accordance with §173.427(b)(4) and (5) or (c) of the subchapter.

### Identification Number Displays

[§172.527]

Appropriate placard must be used with orange panel.

Identification Number Markings on Orange Panels or Appropriate Placards MUST BE DISPLAYED ON: (1) Tank Cars, Cargo Tanks, Portable Tanks, and other Bulk Packagings; (2) Transport vehicles or freight containers containing 4,000 kg (8,820 lbs.) in non-bulk packages of only a single hazardous material having the same proper shipping name and identification number loaded at one facility and transport vehicle contains no other material, hazardous or otherwise; and (3) transport vehicles or freight containers containing 1,000 kg (2,205 lbs.) of nonbulk packages of materials poisonous by inhalation in Hazard Zone A or B. See §§172.301(a)(3), 172.313(c), 172.326, 172.328, 172.330, and 172.331.

Square white background required for placard for highway-route-controlled quantity radioactive material and for rail shipment of certain explosives and poisons, and for flammable gas in a DOT 113 tank car (§172.507 and §172.510).

### Additional Information Contact

The Hazardous Materials Info Center
1-800-HMR-4922
1-800-467-4922
E-mail: infocntr@dot.gov
http://hazmat.dot.gov

This Chart is available on line at the following link: http://phmsa.dot.gov/hazmat

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

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