

Hazmat Classification: Marine Pollutants



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How to use the 49 CFR (US DOT) and *IMDG Code* regulations to classify hazardous materials that are specially regulated for their potential to harm aquatic life.

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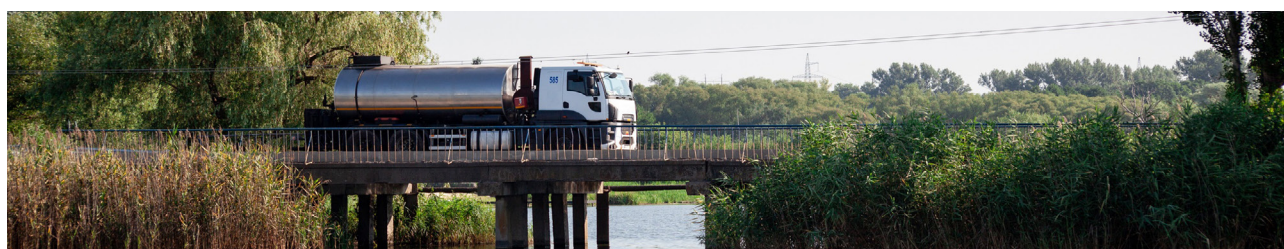
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What Is a Marine Pollutant?

In the context of hazmat transportation, a marine pollutant is a material considered **especially harmful to aquatic life** due to its chemical properties or ingredients.

Knowing if a material is a marine pollutant is an important part of the hazmat classification process. To make that determination, shippers of hazardous materials need knowledge about a specific, complex area of US DOT and international regulations.

This guide covers how to classify marine pollutants for transportation by highway, rail, or vessel, and what's required to comply with US and international regulations for shippers.



Why Do Rules for Marine Pollutants Matter?

Some packages containing marine pollutants must be identified with specific markings and/or by modifying the material's description on shipping papers. Failure to follow all of the applicable requirements can lead to:

Rejection and Delays

This means late or canceled deliveries, damaged relationships with customers and carriers, and even contractual problems for violating the law.

Regulatory Scrutiny and Penalties

In the US, the maximum civil penalty for violating the hazmat regulations is now more than \$100,000 per day, per violation.

Environmental Damage and Liability

In the event of an incident in transportation, lack of required hazard communications may compromise the response effort.

Marine Pollutants: Highway and Rail

To identify marine pollutants for ground transport (by highway or rail), shippers utilize the US DOT *Hazardous Materials Regulations* (HMR) found in 49 CFR Parts 171–181, et al.

Identifying Marine Pollutants

The HMR list marine pollutants in Appendix B to the Hazmat Table at 49 CFR §172.101. The Appendix lists more than 500 materials. A few examples include anhydrous ammonia, chlorine, perchloroethylene (PCE), and turpentine.

Severe Marine Pollutants

Materials that pose the greatest threat to aquatic life are designated by DOT as severe marine pollutants (S.M.P.). A few examples of severe marine pollutants are mercury compounds, PCBs, and certain pesticides and herbicides (chlorpyrifos, DDT).

On the list of marine pollutants in Appendix B to §172.101, the symbol “PP” appears next to each **severe** marine pollutant.

S.M.P.	Marine pollutant
	Acrolein, inhibited
	Acrolein, stabilized
	Acrylic acid, stabilized
	Acrylic aldehyde, inhibited
	Alcohol C-12 - C-16 poly(1-6) ethoxylate
	Alcohol C-6 - C-17 (secondary)poly(3-6) ethoxylate
	Aldicarb
PP	Aldrin
	Alkyl (c12-c14) dimethylamine
	Alkyl (c7-c9) nitrates

Severe Marine Pollutants (S.M.P.) are listed in the Appendix with the symbol “PP” shown in column 1.

MPs in Mixtures and Solutions

A mixture or solution is a marine pollutant if it contains:

- One or more listed marine pollutants in a concentration of **10%** or greater.
- One or more **severe** marine pollutants in a concentration of **1%** or greater.



Marine Pollutants: Vessel/Ocean

To identify a marine pollutant for transportation by vessel, shippers of hazardous materials (a.k.a. “dangerous goods”) follow the *International Maritime Dangerous Goods Code* or *IMDG Code*.

Identifying Marine Pollutants

The *IMDG Code* lists regulated dangerous goods in Chapter 3.2. On that list, marine pollutants are identified with a “P” symbol in column 4.

Important: The *IMDG Code* identifies additional substances as marine pollutants **in the Index only**. Note 1 explains this and includes classification criteria for marine pollutants listed only in the Index.



Mixtures, Solutions, and Unknowns

The *IMDG Code* also contains **testing criteria** for marine pollutants that shippers must use to evaluate mixtures, solutions, and materials for which the effect on the aquatic environment is unknown.

Note: These testing criteria draw more materials into the marine pollutant category, including some that are not listed in Chapter 3.2 or in the Index.

For a **mixture** or **solution** containing a marine pollutant (in any concentration), shippers must apply the test criteria to determine if the material is subject to additional regulation. (See *IMDG Code* 2.9.3.).



Transportation To and From Port (*IMDG Code*)

US DOT allows shippers to abide by *IMDG Code* regulations for identifying and shipping marine pollutants when all or part of the trip is by vessel.

Exceptions

Any person who ships hazardous materials should know how to identify marine pollutants and determine if extra requirements will apply to a given situation. That said, there are several valuable exceptions available under US and international regulations.

The following are excepted from the requirements for marine pollutants:

- Non-bulk packages **transported by motor vehicle or rail.**
- Single packagings containing a net quantity of 5 L or less (for liquids) or 5 kg or less (for solids) and **transported by any mode.**
- Combination packagings with inner receptacles all containing 5 L or less (for liquids) or 5 kg or less (for solid) and **transported by any mode.**

[See 49 CFR 171.4; IATA DGR 4.4; and IMDG Code 2.10.2.7]

Use of Exceptions (by Mode)

Highway and rail. Highway and rail shipments enjoy the broadest relief available for marine pollutants. Ground shipments are subject to additional rules only when offered in bulk packagings (i.e., more than 119 gallons or 1,001 lbs.).

Air. The 5 L or 5 kg quantity exception for single and combination packagings is especially useful for air shippers; many of hazmat/DG packages offered for air transportation fits within these limits.

Vessel. As you might expect, vessel is the mode for which the marine pollutant regulations come into play most frequently. Still, shippers of single and/or combination packagings can benefit from the 5 L or 5 kg quantity exception.



Key Points to Remember

Accurately classifying marine pollutants is essential to keep hazmat shipments moving efficiently and in compliance with current regulations. Failure to recognize and properly communicate these shipments can cause supply-chain delays, scrutiny from regulators and business partners, expensive civil penalties, and ongoing liability for releases or accidents.

Employees involved in preparing hazardous materials shipments must have training to recognize situations in which unique provisions of US or international regulations will apply, including the rules for marine pollutants. Without a strong background of knowledge in these regulations, companies can easily overlook seemingly minor rules and make mistakes that add needless costs, damage the company's reputation, and threaten the environment.

- A marine pollutant is a material considered especially harmful to aquatic life due to its chemical properties or ingredients.
- Shippers utilize the US DOT Hazardous Materials Regulations (HMR) to identify marine pollutants for transport by highway or rail.
- On the list of marine pollutants in Appendix B to §172.101, the symbol "PP" appears next to each severe marine pollutant.
- A mixture or solution is a marine pollutant if it contains one or more listed marine pollutants at certain concentrations.
- Shippers of hazardous materials follow the *IMDG Code* to identify a marine pollutant for transportation by vessel.
- US DOT allows shippers to abide by *IMDG Code* regulations for identifying and shipping marine pollutants when all or part of the trip is by vessel.
- Exceptions exist for marine pollutants under Federal and international regulations for ground, air, and vessel shipments.





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