

EPA Superfund Guide

Clean Air Act Hazardous Air Pollutants Added to the List of CERCLA Hazardous Substances

Office of Emergency and Remedial Response
Emergency Response Division 5202G

Quick Reference Fact Sheet

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) defines the term "hazardous substance" by reference to lists of substances contained in other environmental laws, including the Clean Air Act (CAA). On November 15, 1990, amendments to the CAA were signed into law. Under section 112 of the CAA, as amended, 190 substances are listed as hazardous air pollutants; 52 of these substances were not previously on the CERCLA list of hazardous substances. By definition, these hazardous air pollutants automatically become CERCLA hazardous substances and are, therefore, subject to CERCLA reporting requirements and liability provisions.

The purpose of this fact sheet is to identify the 52 CAA hazardous air pollutants that have been added to the list of CERCLA hazardous substances and that are now subject to CERCLA requirements; to describe the reporting requirements and exemptions under CERCLA; and to examine reporting exemptions in relation to releases of ethylene glycol.

WHAT SUBSTANCES DOES THE CAA REGULATE?

The purpose of the CAA Amendments is to attain and maintain national ambient air quality standards, to control toxic air pollutants, to prevent acid deposition, and to improve the quality of the nation's air. As part of this effort, the 1990 CAA Amendments listed 190 substances, including certain categories of substances, as "hazardous air pollutants."

Most of the 190 CAA hazardous air pollutants were already on the CERCLA list of hazardous substances because they were already listed under other environmental laws. However, 52 of the hazardous air pollutants were not previously listed as CERCLA hazardous substances. These 52 hazardous air pollutants include 47 specific substances and five generic categories of substances. Each of the 52 substances is listed in Exhibit 1.

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Exhibit 1. List of CAA Hazardous Air Pollutants Which are Added to the CERCLA List of Hazardous Substances

Acetamide	m-Cresol	Hexamethylene-1,6-diisocyanate	Styrene oxide
4-Aminobiphenyl	o-Cresol	Hexamethylphosphoramide	Titanium tetrachloride
o-Anisidine	p-Cresol	Hexane	Trifluralin
Biphenyl	DDE	Hydroquinone	2,2,4-Trimethylpentane
1,3-Butadiene	Diazomethane	Methyl tert-butyl ether	Vinyl bromide
Calcium cyanamide	Dibenzofuran	Methylene diphenyl diisocyanate (MDI)	m-Xylene
Caprolactam	Diethanolamine	4,4'-Methylenedianiline	o-Xylene
Carbonyl sulfide	N,N-Diethylaniline	4-Nitrobiphenyl	p-Xylene
Catechol	Diethyl sulfate	N-Nitrosomorpholine	Cobalt compounds
Chloramben	N,N-Dimethylaniline	p-Phenylenediamine	Glycol ethers
Chloroacetic acid	Dimethylformamide	beta-Propiolactone	Manganese compounds
2-Chloroacetophenone	1,2-Epoxybutane	Propionaldehyde	Fine mineral fibers
Chloroprene	Ethylene glycol	Propoxur (Baygon)	Polycyclic organic matter

For a complete listing of the 190 hazardous air pollutants, refer to 42 U.S.C. section 112(b)(1).

WHAT IS A HAZARDOUS SUBSTANCE?

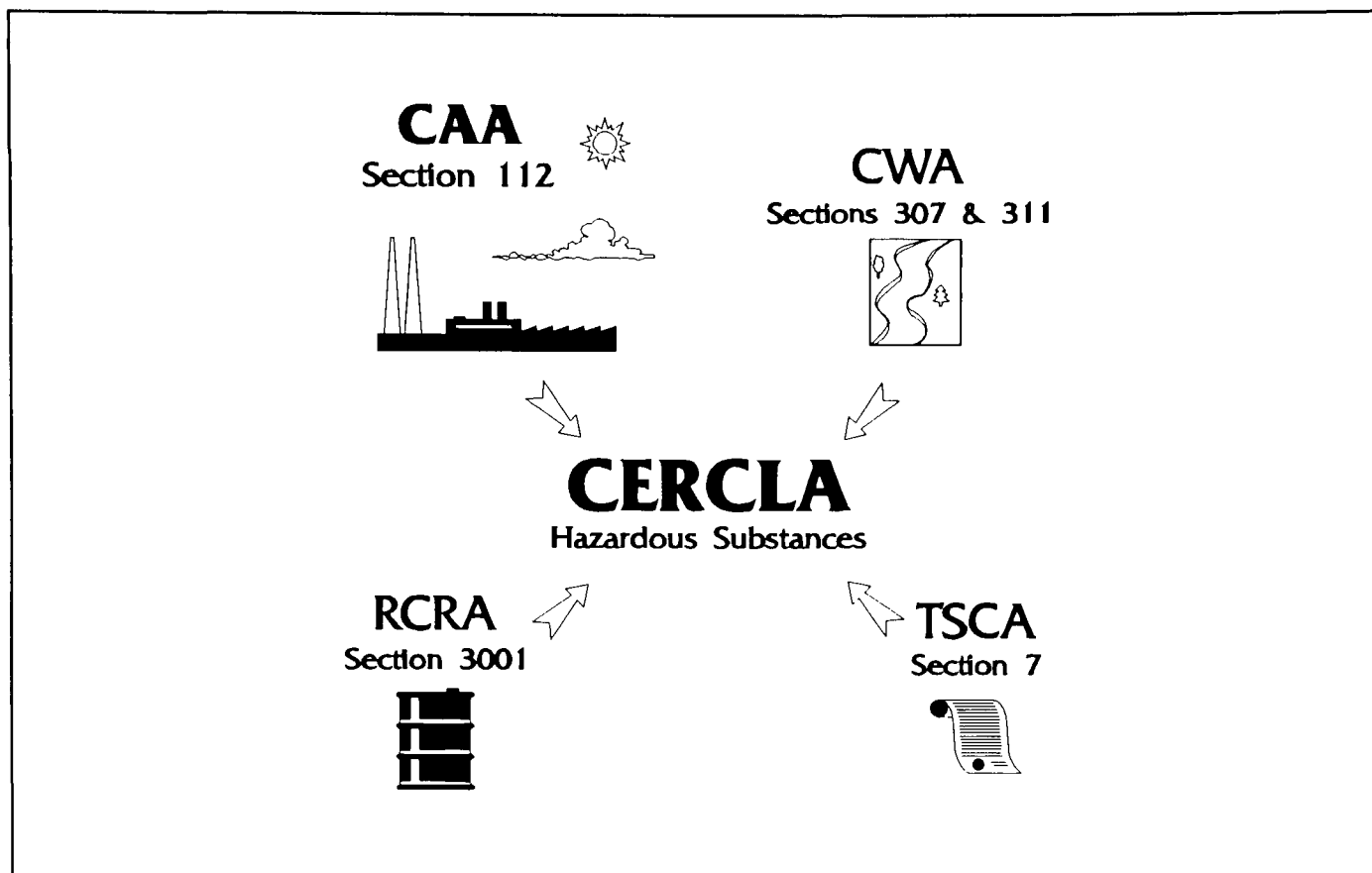
The list of hazardous substances is found in section 302.4 of Title 40 of the *Code of Federal Regulations*. CERCLA defines "hazardous substance" to include certain substances regulated under the CAA, the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), and the Toxic Substances Control Act (TSCA) (see Exhibit 2). CERCLA also allows EPA to designate additional hazardous substances that may present substantial danger to public health or welfare or the environment when released. The CAA Amendments of 1990 listed 52 hazardous air pollutants that automatically became hazardous substances under CERCLA and have one-pound statutory reportable quantities (RQs), unless and until adjusted by EPA.

WHAT IS AN RQ?

An RQ is the quantity of a hazardous substance which, if released into the environment within a 24-hour period, must be reported to appropriate government response personnel. Under CERCLA

and the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), certain parties are required to report any release of a hazardous substance into the environment as soon as the person has knowledge of the release, and if the amount released is equal to or greater than the RQ for that hazardous substance. RQs serve as triggers for informing the government of releases of CERCLA hazardous substances so that Federal, State, and local personnel can determine whether government participation is required for an appropriate response. CERCLA establishes a one-pound statutory RQ for most substances unless and until final adjusted RQs are established by regulation. An RQ is a relative indication of the potential hazards associated with the release of a hazardous substance, rather than a measure of absolute levels of risk, which depends on the specific circumstances of the release.

Exhibit 2. Statutory Sources of the CERCLA Hazardous Substances



WHAT HAPPENS WHEN A HAZARDOUS SUBSTANCE IS RELEASED?

Reporting Requirements

Any release into the environment of an RQ of a hazardous substance (over a 24-hour time period) must be reported immediately to the National Response Center (NRC) at 800-424-8802 or 202-267-2675. In addition, EPCRA requires that the release be reported to the appropriate State emergency response commission (SERC) and local emergency planning committee (LEPC). The phone number for the SERC and LEPC in each State is available through the EPCRA Hotline at 800-525-0202 or 703-412-9877. For transportation-related releases, dialing 911 (or 0 for the operator) will satisfy the EPCRA notification requirements.

Liability and Penalties

The person in charge of a facility or vessel and other parties who transport or dispose of

hazardous substances are liable for all response costs and natural resource damages resulting from a release of a CERCLA hazardous substance. This includes the costs of cleanup and any health study resulting from the release. This liability applies even if a release is not reportable because the amount of the substance released is less than the RQ. In addition, if the person in charge of a vessel or facility fails to report a release that equals or exceeds its RQ or submits false or misleading information regarding a release, EPA is authorized to impose civil penalties and may seek the imposition of criminal sanctions.

Relief from Release Reporting

Several statutory and regulatory sources of relief from CERCLA's release reporting requirements that may apply to releases of CAA hazardous air pollutants are summarized below.

Continuous Releases: Reduced reporting requirements are available for releases of hazardous substances that are continuous and stable in quantity and rate (see *Code of Federal Regulations*, Title 40, section 302.8). "Continuous" is defined by EPA to include routine, anticipated, intermittent releases that are incidental to normal facility operations. In these cases, one does not need to report every release of a hazardous substance that equals or exceeds its RQ; the person in charge of the vessel or facility may choose to make only one notification to the NRC and submit an initial written report to the appropriate EPA Region, SERC, and LEPC. After that, a one-time follow-up report must be submitted to the EPA Region on the one-year anniversary of the initial written report; additional notification is required only if there is a significant change in the amount or type of release.

Federally Permitted Releases: Under CERCLA section 103, any federally permitted release is exempt from CERCLA notification requirements. A federally permitted release is defined in CERCLA section 101(10) to include releases subject to permit programs under various environmental laws. Examples of releases that are federally permitted include releases specified in and in compliance with a National Pollutant Discharge Elimination System (NPDES) permit under the CWA; releases into publicly owned treatment works (POTWs) that are in compliance with CWA pretreatment standards; and emissions into the air that are subject to a permit or control regulation or a State implementation plan under the CAA.

Metal Particle Size: Notification of a release of an RQ or greater of solid particles of certain metals that are CERCLA hazardous substances is not required if the diameter of the particles is greater than 100 micrometers or 0.004 inches (see *Code of Federal Regulations*, Title 40, section 302.6 (d)). This cutoff size was set 10 times larger than the maximum size considered by EPA to remain in the lungs if inhaled. This should ensure that potentially hazardous releases containing small particles of metals would be reported to the NRC and State and local authorities. Very fine beach sand has a particle size of roughly 100 micrometers.

Consumer Products: In CERCLA, Congress exempted consumer products in consumer use from the definition of a facility (see *Code of Federal Regulations*, Title 40, section 302.3). Therefore, releases from consumer products in consumer use (as defined in the Consumer Product Safety Act) are exempt from the reporting requirements described above.

WHAT EFFECTS DO THE CAA AMENDMENTS HAVE?

Example – Ethylene Glycol

Ethylene glycol is one of the new CAA hazardous air pollutants that currently has a one-pound statutory RQ. A common use of ethylene glycol is in aircraft and runway de-icing procedures at airports. Each time an aircraft is de-iced, ethylene glycol is likely to be released into the environment in an amount that is greater than the one-pound statutory RQ. The airline industry is concerned that the volume and frequency of reports will result in an unnecessary burden on the NRC and on the airlines.

EPA has identified two potential sources of reporting relief for releases of ethylene glycol resulting from aircraft and runway de-icing procedures. As mentioned earlier, reduced reporting requirements are available for continuous releases of hazardous substances. EPA has defined "continuous" to include routine, anticipated, intermittent releases that are incidental to normal facility operations. The person in charge of the facility must first establish that the release is indeed continuous and stable in quantity and rate, and must complete initial notification reports in order to qualify for reduced reporting.

The federally permitted releases exemption, described above, also may provide reporting relief to regulated parties. For example, if releases of ethylene glycol are covered by an NPDES permit, are part of a POTW pretreatment program, or are subject to a National Emission Standards for Hazardous Air Pollutants (NESHAPs) permit, they may be exempt from CERCLA notification and liability provisions.

In addition, EPA has evaluated the chemical and toxicological properties of ethylene glycol and is soliciting public comments on an adjusted RQ of 5000 pounds. Releases of aircraft de-icing fluids in amounts containing less than 5000 pounds of ethylene glycol would not require reporting under this approach.

It should be emphasized that until the effective date of a final rulemaking published in the Federal Register with RQ adjustments for the CAA hazardous air pollutants, a release of one pound or more of the substances listed in Table 1 is subject to the reporting provisions of CERCLA and EPCRA.

For more information contact:

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