Material Safety Data Sheet

Aerosoldose 2K Epoxy Primer Gray Finish

1. Product and company identification

Product name : Aerosoldose 2K Epoxy Primer Gray Finish

Manufactured For:
The Easthill Group Dba/The Eastwood Company
263 Shoemaker Road
Pottstown,PA 19464
USA & Canada: 800-345-1178
Outside USA: 610-323-2200
Emergency contact: Chem-Trec: 800-424-9300

2. Hazards identification

Physical state : Liquid. [Aerosol.]

Emergency overview

Signal word : DANGER!

Hazard statements : FLAMMABLE AEROSOL. HARMFUL IF INHALED. INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA. POSSIBLE DEVELOPMENTAL HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE ADVERSE DEVELOPMENTAL EFFECTS, BASED ON ANIMAL DATA.

Precautions : Do not puncture, incinerate or store the container at temperatures above 120°F (49°C) or in direct sunlight. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Avoid exposure during pregnancy. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation : Toxic by inhalation. Can cause central nervous system (CNS) depression. Irritating to respiratory system.

Ingestion : Harmful if swallowed. Can cause central nervous system (CNS) depression.

Skin : Harmful in contact with skin. Irritating to skin. May cause sensitization by skin contact.

Eyes : Severely irritating to eyes. Risk of serious damage to eyes.

Potential chronic health effects

Chronic effects : Contains material that can cause target organ damage. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

2. Hazards identification

Carcinogenicity : Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : Contains material which may cause developmental abnormalities, based on animal data.

Fertility effects : No known significant effects or critical hazards.

Target organs : Contains material which causes damage to the following organs: central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, mucous membranes, lymphatic system, gastrointestinal tract, upper respiratory tract, skin, ears, eye, lens or cornea.

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
respiratory tract irritation
coughing
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths

Skin : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths

Eyes : Adverse symptoms may include the following:
pain or irritation
watering
redness
reduced fetal weight
increase in fetal deaths

Medical conditions aggravated by over-exposure : Pre-existing skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

3. Composition/information on ingredients

Name	CAS number	%
dimethyl ether	115-10-6	15-40
acetone	67-64-1	10-30
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	25068-38-6	5-10
xylene	1330-20-7	3-7
5-methylhexan-2-one	110-12-3	1-5
trizinc bis(orthophosphate)	7779-90-0	1-5
butan-1-ol	71-36-3	1-5
ethylbenzene	100-41-4	1-5
2-butoxyethanol	111-76-2	0.5-1.5
Hydrocarbons, C10, aromatics, <1% naphthalene	64742-94-5	0.5-1.5
n-butyl acetate	123-86-4	0.5-1.5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : Flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable : Use water spray, dry chemical powder or carbon dioxide for extinction. LARGE FIRE: Use alcohol-resistant foam or water spray or fog.

Not suitable : Do not use water jet.

5. Fire-fighting measures

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
phosphorus oxides
halogenated compounds
metal oxide/oxides

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special remarks on explosion hazards : In use, may form flammable/explosive vapor-air mixture.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

7. Handling and storage

Avoid exposure during pregnancy. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Empty containers retain product residue and can be hazardous.

Storage : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Ingredient	Exposure limits
dimethyl ether	**AIHA WEEL (United States, 10/2011).** TWA: 1000 ppm 8 hours.
acetone	**ACGIH TLV (United States, 3/2012).** TWA: 500 ppm 8 hours. TWA: 1188 mg/m³ 8 hours. STEL: 750 ppm 15 minutes. STEL: 1782 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 750 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m³ 15 minutes. **NIOSH REL (United States, 6/2009).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
xylene	**ACGIH TLV (United States, 3/2012).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 655 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2010).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
5-methylhexan-2-one	**ACGIH TLV (United States, 3/2012).** TWA: 50 ppm 8 hours. TWA: 234 mg/m³ 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours.

8. Exposure controls/personal protection

	NIOSH REL (United States, 6/2009). TWA: 50 ppm 10 hours. TWA: 240 mg/m³ 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 100 ppm 8 hours. TWA: 475 mg/m³ 8 hours.
trizinc bis(orthophosphate)	**ACGIH TLV (United States).** TWA: 10 mg/m³ Form: Inhalable TWA: 3 mg/m³ Form: Respirable fraction
butan-1-ol	**ACGIH TLV (United States, 3/2012).** TWA: 20 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.** CEIL: 50 ppm CEIL: 150 mg/m³ **NIOSH REL (United States, 6/2009). Absorbed through skin.** CEIL: 50 ppm CEIL: 150 mg/m³ **OSHA PEL (United States, 6/2010).** TWA: 100 ppm 8 hours. TWA: 300 mg/m³ 8 hours.
ethylbenzene	**ACGIH TLV (United States, 3/2012).** TWA: 20 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **NIOSH REL (United States, 6/2009).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2010).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
2-butoxyethanol	**OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.** TWA: 25 ppm 8 hours. TWA: 120 mg/m³ 8 hours. **NIOSH REL (United States, 6/2009). Absorbed through skin.** TWA: 5 ppm 10 hours. TWA: 24 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2012).** TWA: 20 ppm 8 hours. **OSHA PEL (United States, 6/2010). Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours.
Hydrocarbons, C10, aromatics, <1% naphthalene n-butyl acetate	**ACGIH TLV (United States, 2/2010). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes.

8. Exposure controls/personal protection

	NIOSH REL (United States, 6/2009). TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes. **ACGIH TLV (United States, 3/2012).** TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. **OSHA PEL (United States, 6/2010).** TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Use appropriate respiratory protection if there is a risk of exceeding any exposure limits. Recommended: Filter A1 P2.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): Suitable, 15 minutes: butyl rubber, 0.7 mm. Recommended: Nitrile rubber.

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Recommended: Tightly-fitting goggles.

8. Exposure controls/personal protection

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state : Liquid. [Aerosol.]

Flash point : <0°C (<32°F)

Auto-ignition temperature : 235°C (455°F)

Flammable limits : Lower: 2.6%
Upper: 18.6%

Vapor pressure : 340 kPa (2550.2 mm Hg) [room temperature]

Solubility : Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

Chemical stability : The product is stable.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
dimethyl ether	LC50 Inhalation Gas.	Rat	164000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	309 g/m³	4 hours
acetone	LD50 Oral	Rat	5800 mg/kg	-
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	LD50 Oral	Rat	11.4 g/kg	-
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Dermal	Rabbit	>1700 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
5-methylhexan-2-one	LC50 Inhalation Vapor	Rat	3813 ppm	4 hours
	LD50 Oral	Rat	3200 mg/kg	-
2-butoxyethanol	LC50 Inhalation Dusts and mists	Rat	2175 mg/m³	4 hours

11. Toxicological information

	LC50 Inhalation Vapor	Rat	450 ppm	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	560 mg/kg	-
Hydrocarbons, C10, aromatics, <1% naphthalene	LC50 Inhalation Vapor	Rat	>5 mg/l	4 hours
	LD50 Oral	Rat	>2000 mg/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.2 mg/l	4 hours
	LD50 Dermal	Rabbit	15354 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
n-butyl acetate	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-

Conclusion/Summary : Not available.

Chronic toxicity

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	100 Percent	-
butan-1-ol	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Eyes - Severe irritant	Rabbit	-	0.005 Mililiters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
5-methylhexan-2-one	Eyes - Mild irritant	Rabbit	-	24 hours 100 microliters	-
2-butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-

11. Toxicological information

	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Hydrocarbons, C10, aromatics, <1% naphthalene	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
acetone	A4	-	-	-	-	-
xylene	A4	3	-	-	-	-
ethylbenzene	A3	2B	-	-	-	-
2-butoxyethanol	A3	3	-	-	-	-

Mutagenicity

Product/ingredient name	Test	Experiment	Result
acetone	471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative

Teratogenicity

Not available.

Reproductive toxicity

Not available.

12. Ecological information

Ecotoxicity : This material is toxic to aquatic life with long lasting effects.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 20.565 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
xylene	Acute IC50 2.2 mg/l	Algae	72 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 3300 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

12. Ecological information

butan-1-ol	Acute EC50 1983000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 100 mg/l Fresh water	Fish - Lepomis macrochirus	96 hours
trizinc bis(orthophosphate)	Acute LC50 90 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
5-methylhexan-2-one	Acute LC50 159000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
2-butoxyethanol	Acute EC50 1550 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 800000 to 1000000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1250000 µg/l Marine water	Fish - Menidia beryllina	96 hours
	Acute NOEC 100 mg/l	Daphnia - Daphnia magna	21 days
Hydrocarbons, C10, aromatics, <1% naphthalene	Acute EC50 1 to 3 mg/l	Algae	72 hours
	Acute EC50 3 to 10 mg/l	Daphnia	48 hours
	Acute LC50 2 to 5 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 4.6 mg/l	Algae - chneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6530 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2.1 mg/l	Daphnia - Daphnia Magna	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
n-butyl acetate	Acute LC50 32000 µg/l Marine water	Crustaceans - Artemia salina - Nauplii	48 hours
	Acute LC50 18000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2-butoxyethanol	OECD 302B Inherent Biodegradability: Zahn-Wellens/ EMPA Test	99 % - 28 days	-	-
	OECD 301E Ready Biodegradability - Modified OECD Screening Test	95 % - 28 days	-	-

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1950	Aerosols RQ (Benzene, dimethyl-, acetone)	2.1	-		**Reportable quantity** 1663.9 lbs / 755.43 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements. **Packaging instruction** **Passenger aircraft** Quantity limitation: 75 kg **Cargo aircraft** Quantity limitation: 150 kg **Special provisions** 153, N82
IMDG Class	UN1950	AEROSOLS. Marine pollutant (xylene, trizinc bis (orthophosphate))	2.1	-		**Emergency schedules (EmS)** F-D, S-U
IATA-DGR Class	UN1950	Aerosols, flammable	2.1	-		**Passenger and Cargo Aircraft**Quantity limitation: 75 kg Packaging instructions: 203 **Cargo Aircraft Only** Quantity limitation: 150 kg Packaging instructions: 203 **Limited Quantities - Passenger Aircraft**Quantity limitation: 30 kg Packaging instructions: Y203

PG* : Packing group

15. Regulatory information

HCS Classification : Flammable aerosol
Toxic material
Irritating material
Sensitizing material
Carcinogen
Target organ effects

U.S. Federal regulations : **TSCA 8(a) PAIR**: 5-methylhexan-2-one; 2-methoxy-1-methylethyl acetate
TSCA 8(a) IUR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): Not determined.

15. Regulatory information

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: reaction product: bisphenol-A-(epichlorhydrin); epoxy resin; xylene; Hydrocarbons, C10, aromatics, <1% naphthalene; 2-butoxyethanol; 5-methylhexan-2-one; n-butyl acetate; ethylbenzene; butan-1-ol; acetone; dimethyl ether
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: reaction product: bisphenol-A-(epichlorhydrin); epoxy resin: Immediate (acute) health hazard, Delayed (chronic) health hazard; xylene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Hydrocarbons, C10, aromatics, <1% naphthalene: Delayed (chronic) health hazard; 2-butoxyethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; 5-methylhexan-2-one: Fire hazard; n-butyl acetate: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; ethylbenzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; butan-1-ol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; acetone: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; dimethyl ether: Fire hazard, Sudden release of pressure

Clean Water Act (CWA) 307: trizinc bis(orthophosphate); ethylbenzene; zinc oxide
Clean Water Act (CWA) 311: xylene; ethylbenzene; n-butyl acetate; ethylenediamine
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: dimethyl ether

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Listed

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	xylene trizinc bis(orthophosphate) butan-1-ol ethylbenzene 2-butoxyethanol	1330-20-7 7779-90-0 71-36-3 100-41-4 111-76-2	5-10 1-5 1-5 1-5 1-5
Supplier notification	xylene trizinc bis(orthophosphate) butan-1-ol ethylbenzene 2-butoxyethanol	1330-20-7 7779-90-0 71-36-3 100-41-4 111-76-2	5-10 1-5 1-5 1-5 1-5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

15. Regulatory information

Massachusetts : The following components are listed: XYLENE; METHYL ISOAMYL KETONE; 2-BUTOXYETHANOL; ETHYL BENZENE; BUTYL ACETATE; METHYL ETHER; ACETONE; N-BUTYL ALCOHOL

New York : The following components are listed: Xylene (mixed); Ethylbenzene; Butyl acetate; Acetone; 2-Propanone; Butyl alcohol; 1-Butanol

New Jersey : The following components are listed: XYLENES; BENZENE, DIMETHYL-; ZINC compounds; METHYL ISOAMYL KETONE; 2-HEXANONE, 5-METHYL-; 2-BUTOXY ETHANOL; BUTYL CELLOSOLVE; ETHYL BENZENE; BENZENE, ETHYL-; n-BUTYL ACETATE; ACETIC ACID, BUTYL ESTER; DIMETHYL ETHER; METHANE, OXYBIS-; ACETONE; 2-PROPANONE; n-BUTYL ALCOHOL; 1-BUTANOL

Pennsylvania : The following components are listed: BENZENE, DIMETHYL-; ZINC COMPOUNDS; 2-HEXANONE, 5-METHYL-; ETHANOL, 2-BUTOXY-; BENZENE, ETHYL-; ACETIC ACID, BUTYL ESTER; METHANE, OXYBIS-; 2-PROPANONE; 1-BUTANOL

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.

Canada inventory : Not determined.

International regulations

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan inventory (CSNN): Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

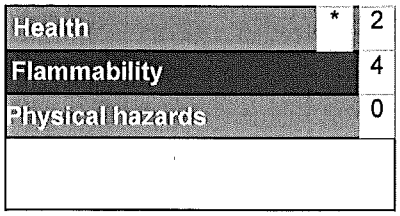
16. Other information

Label requirements : FLAMMABLE AEROSOL. HARMFUL IF INHALED. INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.

16. Other information

POSSIBLE DEVELOPMENTAL HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE ADVERSE DEVELOPMENTAL EFFECTS, BASED ON ANIMAL DATA.

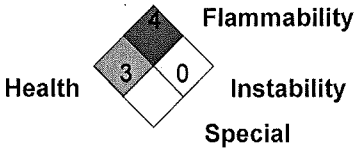
Hazardous Material Information System (U.S.A.) :



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



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Date of issue : 19/10/2012.

Date of previous issue : No previous validation

Version : 1

Indicates information that has changed from previously issued version.

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.