

SAFETY DATA SHEET

High Solids Epoxy Primer 10P20-44

Section 1. Identification

GHS product identifier : High Solids Epoxy Primer 10P20-44
SDS code : 002751

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Industrial use
Uses advised against
Consumer use

Manufacturer : Akzo Nobel Coatings, Inc.
 1 East Water Street
 Waukegan, IL 60085
 USA
 Tel. 1 847 623 4200
 Email: customer.service@akzonobel.com
 Akzo Nobel Coatings Ltd.
 110 Woodbine Downs Blvd.
 Unit #4 Etobicoke, Ontario
 Canada M9W 5S6
 +1 (800) 618-1010

Importer : Cía. Mexicana de Pinturas International
 S.A. de C.V., Carretera Anillo Periférico,
 No Ext 205, No Interior A, Colonia HDA S JOSE, Garcia, Garcia, CP 66000, Nuevo Leon.
 RFC: ANA9510267C4

Emergency telephone number (with hours of operation) : CHEMTREC +1 (800) 424-9300 (Inside the US)
 CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)

Section 2. Hazards identification

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

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
 ACUTE TOXICITY (oral) - Category 4
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN IRRITATION - Category 2
 EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1
 GERM CELL MUTAGENICITY - Category 2
 CARCINOGENICITY - Category 1A
 TOXIC TO REPRODUCTION (Fertility) - Category 2
 TOXIC TO REPRODUCTION (Unborn child) - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

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Section 2. Hazards identification

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapor.
 Harmful if swallowed or if inhaled.
 Causes serious eye irritation.
 Causes skin irritation.
 May cause an allergic skin reaction.
 May cause cancer.
 Suspected of damaging fertility or the unborn child.
 Suspected of causing genetic defects.
 May cause respiratory irritation.
 May cause drowsiness or dizziness.
 Causes damage to organs through prolonged or repeated exposure. (lungs)

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
strontium chromate	≥20 - ≤25	7789-06-2
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	≥10 - ≤20	25068-38-6
heptan-2-one	≥10 - ≤20	110-43-0
crystalline silica, respirable powder	≥10 - ≤20	14808-60-7
4-methylpentan-2-one	≤10	108-10-1
Phenol, polymer with formaldehyde, glycidyl ether	≤10	28064-14-4
titanium dioxide	≤10	13463-67-7
silicon dioxide	≤5	7631-86-9

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Section 3. Composition/information on ingredients

2,2-bis(acryloyloxymethyl)butyl acrylate	≤3	15625-89-5
Glycidyl ether of castor oil , low vis. polyepoxide resin	≤3	74398-71-3
xylene	≤3	1330-20-7
toluene	<1	108-88-3
barium chromate	<1	10294-40-3
ethylbenzene	<1	100-41-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

Section 4. First aid measures

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

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

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

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

Special protective actions for fire-fighters : 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.

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 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 and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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). 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.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : 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. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
strontium chromate	<p>ACGIH TLV (United States, 3/2020). Notes: measured as Cr TWA: 0.0005 mg/m³, (measured as Cr) 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). Notes: as CrO3 CEIL: 0.1 mg/m³, (as CrO3)</p> <p>OSHA PEL Z2 (United States, 2/2013). CEIL: 1 mg/10m³</p> <p>OSHA PEL (United States, 5/2018). TWA: 0.005 mg/m³, (as Cr) 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 0.0002 mg/m³, () 8 hours.</p>
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin heptan-2-one	<p>None.</p> <p>ACGIH TLV (United States, 3/2019). TWA: 50 ppm 8 hours. TWA: 233 mg/m³ 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 465 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 465 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 465 mg/m³ 8 hours.</p>
crystalline silica, respirable powder	<p>OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO₂+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / (%SiO₂+2) 8 hours. Form: Respirable</p> <p>OSHA PEL (United States, 5/2018). TWA: 50 µg/m³ 8 hours. Form: Respirable dust</p> <p>OSHA PEL 1989 (United States, 3/1989). Notes: as quartz TWA: 0.1 mg/m³, (as quartz) 8 hours. Form: Respirable dust</p> <p>ACGIH TLV (United States, 3/2019). Notes: Respirable fraction; see Appendix C, paragraph C. TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction</p> <p>NIOSH REL (United States, 10/2016). Notes: See Appendix A - NIOSH Potential</p>

Section 8. Exposure controls/personal protection

4-methylpentan-2-one

Phenol, polymer with formaldehyde, glycidyl ether
titanium dioxide

silicon dioxide
2,2-bis(acryloyloxymethyl)butyl acrylate

Glycidyl ether of castor oil , low vis. polyepoxide resin
xylene

toluene

Occupational Carcinogen

TWA: 0.05 mg/m³ 10 hours. Form: respirable dust

ACGIH TLV (United States, 3/2019). Notes: Substances for which there is a Biological Exposure Index or Indices

STEL: 75 ppm 15 minutes.

TWA: 20 ppm 8 hours.

NIOSH REL (United States, 10/2016).

STEL: 300 mg/m³ 15 minutes.

STEL: 75 ppm 15 minutes.

TWA: 205 mg/m³ 10 hours.

TWA: 50 ppm 10 hours.

OSHA PEL (United States, 5/2018).

TWA: 410 mg/m³ 8 hours.

TWA: 100 ppm 8 hours.

OSHA PEL 1989 (United States, 3/1989).

STEL: 300 mg/m³ 15 minutes.

STEL: 75 ppm 15 minutes.

TWA: 205 mg/m³ 8 hours.

TWA: 50 ppm 8 hours.

None.

OSHA PEL (United States, 5/2018).

TWA: 15 mg/m³ 8 hours. Form: Total dust

OSHA PEL 1989 (United States, 3/1989).

TWA: 10 mg/m³ 8 hours. Form: Total dust

ACGIH TLV (United States, 3/2019). Notes: Substance identified by other sources as a suspected or confirmed human carcinogen. 1996 Adoption Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL. Refers to Appendix A -- Carcinogens.

TWA: 10 mg/m³ 8 hours.

None.

AIHA WEEL (United States, 7/2018).

Absorbed through skin.

TWA: 1 mg/m³ 8 hours.

None.

ACGIH TLV (United States, 3/2019). Notes: 1996 Adoption Substances for which there is a Biological Exposure Index or Indices Refers to Appendix A -- Carcinogens.

STEL: 651 mg/m³ 15 minutes.

STEL: 150 ppm 15 minutes.

TWA: 434 mg/m³ 8 hours.

TWA: 100 ppm 8 hours.

OSHA PEL (United States, 5/2018).

TWA: 435 mg/m³ 8 hours.

TWA: 100 ppm 8 hours.

OSHA PEL 1989 (United States, 3/1989).

STEL: 655 mg/m³ 15 minutes.

STEL: 150 ppm 15 minutes.

TWA: 435 mg/m³ 8 hours.

TWA: 100 ppm 8 hours.

NIOSH REL (United States, 10/2016).

STEL: 560 mg/m³ 15 minutes.

Section 8. Exposure controls/personal protection

barium chromate

STEL: 150 ppm 15 minutes.
 TWA: 375 mg/m³ 10 hours.
 TWA: 100 ppm 10 hours.
OSHA PEL Z2 (United States, 2/2013).
 AMP: 500 ppm 10 minutes.
 CEIL: 300 ppm
 TWA: 200 ppm 8 hours.
ACGIH TLV (United States, 3/2019).
 TWA: 20 ppm 8 hours.
OSHA PEL 1989 (United States, 3/1989).
Notes: See Table Z-2.
 STEL: 560 mg/m³ 15 minutes.
 STEL: 150 ppm 15 minutes.
 TWA: 375 mg/m³ 8 hours.
 TWA: 100 ppm 8 hours.
ACGIH TLV (United States, 3/2019).
 TWA: 0.0002 mg/m³, (measured as Cr) 8 hours. Form: Inhalable fraction
 STEL: 0.0005 mg/m³, (measured as Cr) 15 minutes. Form: Inhalable fraction
OSHA PEL Z2 (United States, 2/2013).
 CEIL: 1 mg/10m³
OSHA PEL (United States, 5/2018).
 TWA: 0.005 mg/m³, (as Cr) 8 hours.
NIOSH REL (United States, 10/2016).
 TWA: 0.0002 mg/m³, () 8 hours.
OSHA PEL 1989 (United States, 3/1989).
Notes: as CrO3
 CEIL: 0.1 mg/m³, (as CrO3)

ethylbenzene

ACGIH TLV (United States, 3/2019). Notes: Substances for which there is a Biological Exposure Index or Indices 2002 Adoption.
 TWA: 20 ppm 8 hours.
NIOSH REL (United States, 10/2016).
 STEL: 545 mg/m³ 15 minutes.
 STEL: 125 ppm 15 minutes.
 TWA: 435 mg/m³ 10 hours.
 TWA: 100 ppm 10 hours.
OSHA PEL (United States, 5/2018).
 TWA: 435 mg/m³ 8 hours.
 TWA: 100 ppm 8 hours.
OSHA PEL 1989 (United States, 3/1989).
 STEL: 545 mg/m³ 15 minutes.
 STEL: 125 ppm 15 minutes.
 TWA: 435 mg/m³ 8 hours.
 TWA: 100 ppm 8 hours.

Appropriate engineering controls

: 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.

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.

Individual protection measures

Section 8. Exposure controls/personal protection

- 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.
- Eye/face protection** : 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : 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.
- Body protection** : 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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Yellow.

Odor : Solvent.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Boiling point : 117°C (242.6°F)

boiling range : Not available.

Flash point : Closed cup: 4°C (39.2°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits

Upper: : Not determined.

Lower: : Not determined.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.447

Density : 12.08 lbs/gal 1.447 g/cm³

Solubility : Not available.

Solubility in water : Not available.

Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (room temperature): 2 cm ² /s (200 cSt)
Weight Volatiles	: 24.61% (w/w)
Volume Volatiles	: 43.21 % (v/v)
Weight Solids	: 75.39 % (w/w)
Volume Solids	: 56.79 % (v/v)
Regulatory VOC	: 3.0 lbs/gal 356 g/l minus water and exempt solvents
VOC Actual	: 3.0 lbs/gal 356 g/l

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
strontium chromate	LC50 Inhalation Dusts and mists	Rat	0.27 mg/l	4 hours
	LD50 Intratracheal	Rat	16.6 mg/kg	-
	LD50 Oral	Rat	3118 mg/kg	-
heptan-2-one	LC50 Inhalation Vapor	Rat	16.7 mg/l	4 hours
	LD50 Dermal	Rabbit	12600 uL/kg	-
	LD50 Intraperitoneal	Mouse	400 mg/kg	-
	LD50 Intraperitoneal	Rat	800 mg/kg	-
	LD50 Oral	Mouse	730 mg/kg	-
	LD50 Oral	Rat	1670 mg/kg	-
	LD50 Oral	Rat	1600 mg/kg	-
4-methylpentan-2-one	LC50 Inhalation Vapor	Rat - Male, Female	11.6 mg/l	4 hours
	LD50 Intraperitoneal	Guinea pig	800 mg/kg	-
	LD50 Intraperitoneal	Mouse	268 mg/kg	-
	LD50 Intraperitoneal	Rat	400 mg/kg	-
	LD50 Oral	Guinea pig	1600 mg/kg	-
	LD50 Oral	Mouse	1900 mg/kg	-
	LD50 Oral	Mouse	2850 mg/kg	-
	LD50 Oral	Rat	2080 mg/kg	-
	LD50 Oral	Rat	4600 mg/kg	-

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2,2-bis(acryloyloxymethyl) butyl acrylate	LD50 Dermal	Rabbit	5170 mg/kg	-
	LD50 Intraperitoneal	Rat	55 mg/kg	-
	LD50 Oral	Rat	5190 uL/kg	-
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6700 ppm	4 hours
	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LD50 Intraperitoneal	Mouse	1548 mg/kg	-
	LD50 Intraperitoneal	Mouse	1548 mg/kg	-
	LD50 Intraperitoneal	Rat	2459 mg/kg	-
	LD50 Oral	Mouse	2119 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
toluene	LD50 Subcutaneous	Rat	1700 mg/kg	-
	LC50 Inhalation Gas.	Mouse	400 ppm	24 hours
	LC50 Inhalation Vapor	Mouse	30000 mg/m ³	2 hours
	LC50 Inhalation Vapor	Mouse	19900 mg/m ³	7 hours
	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LD50 Dermal	Rabbit	14100 uL/kg	-
	LD50 Intraperitoneal	Guinea pig	500 mg/kg	-
	LD50 Intraperitoneal	Mouse	59 mg/kg	-
	LD50 Intraperitoneal	Rat	1332 mg/kg	-
	LD50 Intravenous	Rat	1960 mg/kg	-
	LD50 Oral	Rat	636 mg/kg	-
	LD50 Route of exposure unreported	Mouse	2 g/kg	-
	LD50 Route of exposure unreported	Rat	6900 mg/kg	-
	LD50 Subcutaneous	Mouse	2250 mg/kg	-
ethylbenzene	LC50 Inhalation Gas.	Rabbit	4000 ppm	4 hours
	LC50 Inhalation Vapor	Mouse	35500 mg/m ³	2 hours
	LC50 Inhalation Vapor	Rat	55000 mg/m ³	2 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Dermal	Rabbit	17800 uL/kg	-
	LD50 Intraperitoneal	Mouse	2624 uL/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 UI	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
heptan-2-one	Skin - Mild irritant	Rabbit	-	24 hours 14 mg	-
4-methylpentan-2-one	Eyes - Moderate irritant	Rabbit	-	24 hours 100 UI	-
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
silicon dioxide	Eyes - Mild irritant	Rabbit	-	24 hours 25 mg	-
2,2-bis(acryloyloxymethyl) butyl acrylate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-

Section 11. Toxicological information

toluene	Skin - Mild irritant	Rat	-	8 hours 60 UI	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
ethylbenzene	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Severe irritant	Rabbit	-	870 ug	-
	Skin - Mild irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Moderate irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
strontium chromate	+	1	Known to be a human carcinogen.
crystalline silica, respirable powder	-	1	Known to be a human carcinogen.
4-methylpentan-2-one	-	2B	-
titanium dioxide	-	2B	-
silicon dioxide	-	3	-
2,2-bis(acryloyloxymethyl) butyl acrylate	-	2B	-
xylene	-	3	-
toluene	-	3	-
barium chromate	+	1	Known to be a human carcinogen.
ethylbenzene	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
strontium chromate	Category 3	Not applicable.	Respiratory tract irritation
heptan-2-one	Category 3	Not applicable.	Narcotic effects
4-methylpentan-2-one	Category 3	Not applicable.	Narcotic effects
xylene	Category 3	Not applicable.	Respiratory tract irritation
toluene	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
crystalline silica, respirable powder	Category 1	Inhalation	lungs
toluene	Category 2	Not determined	Not determined
ethylbenzene	Category 2	Not determined	hearing organs

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : Suspected of causing genetic defects.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1144 mg/kg
Dermal	42024.1 mg/kg
Inhalation (vapors)	61.59 mg/l
Inhalation (dusts and mists)	1.235 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
heptan-2-one 4-methylpentan-2-one	Acute LC50 131000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 505000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 540000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 537000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
titanium dioxide	Chronic NOEC 78 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 168 mg/l Fresh water	Fish - Pimephales promelas - Embryo	33 days
	Acute EC50 19.3 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 27.8 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 35.306 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 13.4 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 11 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 3.6 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 15.9 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 13 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 >1000 mg/l Fresh water	Fish - Pimephales promelas	96 hours

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xylene	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours	
	Acute EC50 90 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours	
	Acute LC50 8.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours	
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours	
	Acute LC50 15700 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours	
	Acute LC50 20870 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours	
	Acute LC50 19000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours	
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours	
	Acute LC50 16940 µg/l Fresh water	Fish - Carassius auratus	96 hours	
	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours	
toluene	Acute EC50 16500 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours	
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours	
	Acute EC50 6.88 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours	
	Acute EC50 6.56 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours	
	Acute EC50 19600 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours	
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours	
	Acute EC50 6780 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours	
	Acute LC50 15.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours	
	Acute LC50 15500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours	
	Acute LC50 56.3 ppm Marine water	Crustaceans - Americamysis bahia	48 hours	
	Acute LC50 86.3 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours	
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours	
	Acute LC50 6410 µg/l Marine water	Fish - Oncorhynchus gorbuscha - Fry	96 hours	
	Acute LC50 5800 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours	
	Acute LC50 6780 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours	
	ethylbenzene	Chronic NOEC 2 mg/l Fresh water	Daphnia - Daphnia magna	21 days
		Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
		Acute EC50 4900 µg/l Marine water	Algae - Skeletonema costatum	72 hours
Acute EC50 7700 µg/l Marine water		Algae - Skeletonema costatum	96 hours	
Acute EC50 4600 µg/l Fresh water		Algae - Pseudokirchneriella subcapitata	72 hours	
Acute EC50 5400 µg/l Fresh water		Algae - Pseudokirchneriella subcapitata	72 hours	
Acute EC50 3600 µg/l Fresh water		Algae - Pseudokirchneriella subcapitata	96 hours	
Acute EC50 6.53 mg/l Marine water		Crustaceans - Artemia sp. - Nauplii	48 hours	
Acute EC50 13.3 mg/l Marine water		Crustaceans - Artemia sp. - Nauplii	48 hours	
Acute EC50 2.97 mg/l Fresh water		Daphnia - Daphnia magna - Neonate	48 hours	

Section 12. Ecological information

Acute EC50 2.93 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Acute LC50 8.78 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
Acute LC50 13.3 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
Acute LC50 40000 µg/l Marine water	Crustaceans - Cancer magister - Zoea	48 hours
Acute LC50 18.4 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Acute LC50 13.9 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Acute LC50 75000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
Acute LC50 5100 µg/l Marine water	Fish - Menidia menidia	96 hours
Acute LC50 9090 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Acute LC50 9100 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Acute LC50 4.3 ul/L Marine water	Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	2.64 to 3.78	31	low
heptan-2-one	2.26	-	low
4-methylpentan-2-one	1.9	-	low
2,2-bis(acryloyloxymethyl)butyl acrylate	0.67	-	low
xylene	3.12	8.1 to 25.9	low
toluene	2.73	90	low
ethylbenzene	3.6	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.








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

Section 13. Disposal considerations

Disposal methods : 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3  	3 	3  	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Marine Pollutant (s): strontium chromate, reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Yes. The environmentally hazardous substance mark is not required.

Additional information

- DOT Classification** : **Reportable quantity** 45.731 lbs / 20.762 kg [3.7904 gal / 14.348 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
Special provisions 383
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail.
- IMDG** : **Emergency schedules** F-E, _S-E_
The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

- U.S. Federal regulations** :
- TSCA 4(a) final test rules:** Castor oil, sulfated, sodium salt
 - TSCA 5(a)2 final significant new use rules:** No products found.
 - TSCA 5(e) substance consent order:** No products found.
 - TSCA 6 proposed risk management:** lead powder
 - TSCA 6 final risk management:** strontium chromate; barium chromate
 - TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
 - TSCA 12(b) annual export notification:** strontium chromate

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Section 15. Regulatory information

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 307: strontium chromate; barium chromate; lead powder; Cadmium (Non-pyrophoric); ethylbenzene; toluene

Clean Water Act (CWA) 311: strontium chromate; xylene; ethylbenzene; toluene; Formaldehyde, solution; n-butyl acetate

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 304 RQ : 572228.4 lbs / 259791.7 kg [47429 gal / 179538.1 L]

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2
 ACUTE TOXICITY (oral) - Category 4
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN IRRITATION - Category 2
 EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1
 GERM CELL MUTAGENICITY - Category 2
 CARCINOGENICITY - Category 1A
 TOXIC TO REPRODUCTION (Fertility) - Category 2
 TOXIC TO REPRODUCTION (Unborn child) - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1

Composition/information on ingredients

Name	%	Classification
strontium chromate	≥20 - ≤25	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 2 SKIN SENSITIZATION - Category 1 GERM CELL MUTAGENICITY - Category 2 CARCINOGENICITY - Category 1A TOXIC TO REPRODUCTION (Fertility) - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	≥10 - ≤20	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1
heptan-2-one	≥10 - ≤20	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
crystalline silica, respirable powder	≥10 - ≤20	CARCINOGENICITY (inhalation) - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED

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Section 15. Regulatory information

4-methylpentan-2-one	≤10	EXPOSURE) (lungs) (inhalation) - Category 1 FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Phenol, polymer with formaldehyde, glycidyl ether	≤10	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1
titanium dioxide	≤10	CARCINOGENICITY - Category 2
2,2-bis(acryloyloxymethyl)butyl acrylate	≤3	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2
Glycidyl ether of castor oil , low vis. polyepoxide resin	≤3	SKIN SENSITIZATION - Category 1
xylene	≤3	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
toluene	<1	ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
barium salts	<1	ASPIRATION HAZARD - Category 1 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 1A
ethylbenzene	<1	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 ASPIRATION HAZARD - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	strontium chromate	7789-06-2	≥20 - ≤25
	4-methylpentan-2-one	108-10-1	≤10
	xylene	1330-20-7	≤3
	barium chromate	10294-40-3	<1
	ethylbenzene	100-41-4	<1
	lead powder	7439-92-1	<0.03
Supplier notification	strontium chromate	7789-06-2	≥20 - ≤25
	4-methylpentan-2-one	108-10-1	≤10
	xylene	1330-20-7	≤3
	barium chromate	10294-40-3	<1
	ethylbenzene	100-41-4	<1

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

State regulations

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Section 15. Regulatory information

- Massachusetts** : The following components are listed: STRONTIUM CHROMATE; METHYL (N-AMYL) KETONE; SILICA, CRYSTALLINE, QUARTZ; AMORPHOUS SILICA; METHYL (N-AMYL) KETONE; METHYL ISOBUTYL KETONE; 4-METHYL-2-PENTANONE; TITANIUM DIOXIDE; TIN DIOXIDE DUST; XYLENE; DIMETHYLBENZENE
- New York** : The following components are listed: Strontium chromate; Methyl isobutyl ketone; Hexone; Xylene mixed
- New Jersey** : The following components are listed: STRONTIUM CHROMATE; CHROMIC ACID (H₂CrO₄), STRONTIUM SALT (1:1); BARIUM CHROMATE; CHROMIC ACID (H₂CrO₄), BARIUM SALT (1:1); METHYL n-AMYL KETONE; 2-HEPTANONE; SILICA, QUARTZ; QUARTZ (SiO₂); METHYL n-AMYL KETONE; 2-HEPTANONE; METHYL ISOBUTYL KETONE; 2-PENTANONE, 4-METHYL-; TITANIUM DIOXIDE; TITANIUM OXIDE (TiO₂); XYLENES; BENZENE, DIMETHYL-
- Pennsylvania** : The following components are listed: CHROMIC ACID, STRONTIUM SALT (1:1); BARIUM COMPOUNDS; 2-HEPTANONE; QUARTZ DUST; QUARTZ; SILICA; 2-HEPTANONE; 2-PENTANONE, 4-METHYL-; TITANIUM OXIDE; BENZENE, DIMETHYL-

California Prop. 65

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
strontium chromate	Yes.	Yes.
crystalline silica, respirable powder	-	-
4-methylpentan-2-one	-	-
titanium dioxide	-	-
toluene	-	Yes.
barium chromate	Yes.	Yes.
ethylbenzene	Yes.	-
Formaldehyde, solution	Yes.	-
lead powder	Yes.	Yes.
phenyl glycidyl ether	Yes.	-
Cadmium (Non-pyrophoric)	Yes.	Yes.

Inventory list

- Australia** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Europe** : All components are listed or exempted.
- Japan** : **Japan inventory (ENCS):** At least one component is not listed.
Japan inventory (ISHL): At least one component is not listed.
- Malaysia** : At least one component is not listed.
- New Zealand** : At least one component is not listed.
- Philippines** : At least one component is not listed.
- Republic of Korea** : All components are listed or exempted.
- Taiwan** : All components are listed or exempted.
- Thailand** : At least one component is not listed.
- Turkey** : At least one component is not listed.
- Viet Nam** : At least one component is not listed.

Section 16. Other information

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

Health	*	3
Flammability		3
Physical hazards		0

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 and the associated label are not required on SDSs or products leaving a facility 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 trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
ACUTE TOXICITY (oral) - Category 4	Calculation method
ACUTE TOXICITY (inhalation) - Category 4	Calculation method
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
GERM CELL MUTAGENICITY - Category 2	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
TOXIC TO REPRODUCTION (Fertility) - Category 2	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1	Calculation method

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Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws. Any person using this product must determine for themselves, by preliminary tests or otherwise, the suitability of this product for their purposes. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. The application, use and processing of AkzoNobel's products and the products manufactured by Buyer on the basis of AkzoNobel's technical advice are beyond AkzoNobel's control and, therefore, entirely Buyer's own responsibility. AkzoNobel makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

IA_493

SAFETY DATA SHEET

High Solids Epoxy Primer EC-265

Section 1. Identification

GHS product identifier : High Solids Epoxy Primer EC-265
SDS code : 004673

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Industrial use
Uses advised against
Consumer use

Manufacturer : Akzo Nobel Coatings, Inc.
 1 East Water Street
 Waukegan, IL 60085
 USA
 Tel. 1 847 623 4200
 Email: customer.service@akzonobel.com
 Akzo Nobel Coatings Ltd.
 110 Woodbine Downs Blvd.
 Unit #4 Etobicoke, Ontario
 Canada M9W 5S6
 +1 (800) 618-1010

Importer : Cía. Mexicana de Pinturas International
 S.A. de C.V., Carretera Anillo Periférico,
 No Ext 205, No Interior A, Colonia HDA S JOSE, Garcia, Garcia, CP 66000, Nuevo
 Leon.
 RFC: ANA9510267C4

Emergency telephone number (with hours of operation) : CHEMTREC +1 (800) 424-9300 (Inside the US)
 CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)

Section 2. Hazards identification

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

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
 ACUTE TOXICITY (oral) - Category 4
 SKIN CORROSION - Category 1B
 SERIOUS EYE DAMAGE - Category 1
 SKIN SENSITIZATION - Category 1
 TOXIC TO REPRODUCTION (Fertility) - Category 2
 TOXIC TO REPRODUCTION (Unborn child) - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

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Section 2. Hazards identification

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapor.
 Harmful if swallowed.
 Causes severe skin burns and eye damage.
 May cause an allergic skin reaction.
 Suspected of damaging fertility or the unborn child.
 May cause drowsiness or dizziness.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage

: Store locked up.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
toluene	≥25 - ≤50	108-88-3
4-tert-butylphenol	≥10 - ≤20	98-54-4
benzyl alcohol	≤11	100-51-6
N-(3-(trimethoxysilyl)propyl)ethylenediamine	≤10	1760-24-3
m-phenylenebis(methylamine)	≤8.4	1477-55-0
trimethylhexane-1,6-diamine	≤10	25620-58-0
2,4,6-tris(dimethylaminomethyl)phenol	≤10	90-72-2
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	≤3	68953-36-6
4-nonylphenol, branched	≤3	84852-15-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Section 3. Composition/information on ingredients

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes severe burns. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 stomach pains
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 metal oxide/oxides

Special protective actions for fire-fighters : 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.

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. 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.

Section 6. Accidental release measures

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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 and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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). 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : 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. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
toluene	NIOSH REL (United States, 10/2016). STEL: 560 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m ³ 10 hours. TWA: 100 ppm 10 hours. OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2019). TWA: 20 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). Notes: See Table Z-2. STEL: 560 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
4-tert-butylphenol	None.
benzyl alcohol	AIHA WEEL (United States, 7/2018). TWA: 10 ppm 8 hours.
N-(3-(trimethoxysilyl)propyl)ethylenediamine	None.
m-phenylenebis(methylamine)	ACGIH TLV (United States, 3/2019). Absorbed through skin. C: 0.018 ppm OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. CEIL: 0.1 mg/m ³ NIOSH REL (United States, 10/2016). Absorbed through skin. CEIL: 0.1 mg/m ³
trimethylhexane-1,6-diamine	None.
2,4,6-tris(dimethylaminomethyl)phenol	None.
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	None.
4-nonylphenol, branched	None.

Appropriate engineering controls : 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.

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.

Individual protection measures

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.

Section 8. Exposure controls/personal protection

- Eye/face protection** : 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : 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.
- Body protection** : 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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Yellow.

Odor : Pungent.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Boiling point : 111°C (231.8°F)

boiling range : Not available.

Flash point : Closed cup: 4°C (39.2°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits

Upper: : Not determined.

Lower: : Not determined.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 0.955

Density : 7.97 lbs/gal 0.955 g/cm³

Solubility : Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (room temperature): 0.42 cm²/s (42 cSt)

Section 9. Physical and chemical properties

Weight Volatiles	: 52.29% (w/w)
Volume Volatiles	: 53.56 %(v/v)
Weight Solids	: 47.71 %(w/w)
Volume Solids	: 46.44 %(v/v)
Regulatory VOC	: 4.2 lbs/gal 499 g/l minus water and exempt solvents
VOC Actual	: 4.2 lbs/gal 499 g/l

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
toluene	LC50 Inhalation Gas.	Mouse	400 ppm	24 hours
	LC50 Inhalation Vapor	Mouse	30000 mg/m ³	2 hours
	LC50 Inhalation Vapor	Mouse	19900 mg/m ³	7 hours
	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LD50 Dermal	Rabbit	14100 uL/kg	-
	LD50 Intraperitoneal	Guinea pig	500 mg/kg	-
	LD50 Intraperitoneal	Mouse	59 mg/kg	-
	LD50 Intraperitoneal	Rat	1332 mg/kg	-
	LD50 Intravenous	Rat	1960 mg/kg	-
	LD50 Oral	Rat	636 mg/kg	-
	LD50 Route of exposure unreported	Mouse	2 g/kg	-
	LD50 Route of exposure unreported	Rat	6900 mg/kg	-
	LD50 Subcutaneous	Mouse	2250 mg/kg	-
4-tert-butylphenol	LD50 Dermal	Rabbit	2520 uL/kg	-
	LD50 Intraperitoneal	Mouse	78 mg/kg	-
	LD50 Intraperitoneal	Rat	225 mg/kg	-
	LD50 Oral	Mouse	1030 mg/kg	-
	LD50 Oral	Rat	3250 uL/kg	-
benzyl alcohol	LC50 Inhalation Vapor	Rat	1000 ppm	8 hours
	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Intra-arterial	Rat	441 mg/kg	-
	LD50 Intraperitoneal	Mouse	650 mg/kg	-
	LD50 Intraperitoneal	Rat	400 mg/kg	-
	LD50 Intravenous	Mouse	324 mg/kg	-

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Section 11. Toxicological information

N-(3-(trimethoxysilyl)propyl)ethylenediamine	LD50 Intravenous	Rat	53 mg/kg	-	
	LD50 Oral	Guinea pig	2500 mg/kg	-	
	LD50 Oral	Guinea pig	2500 mg/kg	-	
	LD50 Oral	Mouse	1360 mg/kg	-	
	LD50 Oral	Mouse	1360 mg/kg	-	
	LD50 Oral	Rabbit	1040 mg/kg	-	
	LD50 Oral	Rabbit	1040 mg/kg	-	
	LD50 Oral	Rat	1.5 mL/kg	-	
	LD50 Oral	Rat	1230 mg/kg	-	
	LD50 Oral	Rat	1230 mg/kg	-	
	LD50 Oral	Rat	1660 mg/kg	-	
	LD50 Intravenous	Mouse	180 mg/kg	-	
	m-phenylenebis (methylamine)	LD50 Oral	Rat	2413 mg/kg	-
		LD50 Oral	Rat	7460 uL/kg	-
		LC50 Inhalation Gas.	Rat	700 ppm	1 hours
2,4,6-tris (dimethylaminomethyl)phenol	LD50 Dermal	Rabbit	2 g/kg	-	
	LD50 Oral	Rat	930 mg/kg	-	
	LD50 Dermal	Rat	1280 mg/kg	-	
4-nonylphenol, branched	LD50 Oral	Rat	1200 mg/kg	-	
	LD50 Oral	Rat	1673 mg/kg	-	
	LD50 Oral	Rat	2169 mg/kg	-	
	LD50 Oral	Rat	1300 mg/kg	-	
	LD50 Oral	Rat	1882 mg/kg	-	

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Severe irritant	Rabbit	-	870 ug	-
4-tert-butylphenol	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Eyes - Severe irritant	Rabbit	-	10 mg	-
benzyl alcohol	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	4 hours 500 mg	-
N-(3-(trimethoxysilyl)propyl)ethylenediamine	Skin - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	15 mg	-
m-phenylenebis (methylamine)	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Skin - Severe irritant	Rabbit	-	24 hours 750 ug	-
2,4,6-tris (dimethylaminomethyl)phenol	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Skin - Mild irritant	Rat	-	0.025 MI	-
	Skin - Severe irritant	Rat	-	0.25 MI	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 UI	-

Section 11. Toxicological information

4-nonylphenol, branched	Eyes - Severe irritant Skin - Severe irritant	Rabbit Rabbit	- -	100 mg 24 hours 500 mg	- -
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Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
toluene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
toluene	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
toluene	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes severe burns. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness

Section 11. Toxicological information

- Inhalation** : Adverse symptoms may include the following:
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 stomach pains
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1008.5 mg/kg
Inhalation (dusts and mists)	5.04 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	
toluene	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours	
	Acute EC50 16500 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours	
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours	
	Acute EC50 6.88 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours	
	Acute EC50 6.56 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours	
	Acute EC50 19600 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours	
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours	
	Acute EC50 6780 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours	
	Acute LC50 15.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours	
	Acute LC50 15500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours	
	Acute LC50 56.3 ppm Marine water	Crustaceans - Americamysis bahia	48 hours	
	Acute LC50 86.3 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours	
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours	
	Acute LC50 6410 µg/l Marine water	Fish - Oncorhynchus gorboscha - Fry	96 hours	
	Acute LC50 5800 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours	
	Acute LC50 6780 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours	
	4-tert-butylphenol	Chronic NOEC 2 mg/l Fresh water	Daphnia - Daphnia magna	21 days
		Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
		Acute EC50 16.31 mg/l Fresh water	Algae - Nitzschia kuetzingiana - Exponential growth phase	72 hours
		Acute EC50 13.27 mg/l Fresh water	Algae - Ankistrodesmus sp. - Exponential growth phase	72 hours
Acute EC50 17.62 mg/l Fresh water		Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours	
Acute EC50 16.91 mg/l Fresh water		Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours	
Acute EC50 11.08 mg/l Fresh water		Algae - Scenedesmus quadricauda - Exponential growth phase	72 hours	
Acute EC50 3.9 mg/l Fresh water		Daphnia - Daphnia magna	48 hours	
Acute LC50 5.15 mg/l Fresh water		Fish - Pimephales promelas	96 hours	
Acute LC50 5140 µg/l Fresh water		Fish - Pimephales promelas	96 hours	
Acute LC50 6.9 mg/l Fresh water		Fish - Cyprinus carpio - Adult	96 hours	
Chronic NOEC 5 mg/l Fresh water		Algae - Ankistrodesmus sp. - Exponential growth phase	72 hours	
Chronic NOEC 1 mg/l Fresh water	Algae - Scenedesmus quadricauda - Exponential growth phase	72 hours		
Chronic NOEC 0.45 mg/l Fresh water	Daphnia - Daphnia magna	21 days		

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: 1/27/2023

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: 1/27/2023

12/18

Section 12. Ecological information

benzyl alcohol	Chronic NOEC 1484.92 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.5 mg/l Fresh water	Fish - Gobiocypris rarus - Embryo	28 days
4-nonylphenol, branched	Chronic NOEC 2.3 mg/l Fresh water	Fish - Cyprinus carpio - Adult	28 days
	Acute LC50 10000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 460000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 15000 µg/l Marine water	Fish - Menidia beryllina	96 hours
	Acute EC50 0.03 mg/l Marine water	Algae - Skeletonema costatum	72 hours
	Acute EC50 0.027 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 0.029 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 0.33 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 0.41 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 137 µg/l Marine water	Crustaceans - Eohaustorius estuarius - Adult	48 hours
	Acute LC50 135.1 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 138.25 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 70 µg/l Marine water	Fish - Menidia beryllina - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 142 µg/l Marine water	Fish - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 17 µg/l Marine water	Fish - Pleuronectes americanus - Larvae	96 hours
Chronic NOEC 5 µg/l Fresh water	Crustaceans - Gammarus fossarum - Adult	21 days	
Chronic NOEC 7.4 µg/l Fresh water	Fish - Pimephales promelas - Embryo	33 days	
Chronic NOEC 23 µg/l Fresh water	Fish - Pimephales promelas - Embryo	33 days	
Chronic NOEC 23 µg/l Fresh water	Fish - Pimephales promelas - Embryo	33 days	
Chronic NOEC 30 µg/l Fresh water	Fish - Danio rerio - Fry	160 days	
Chronic NOEC 30 µg/l Fresh water	Fish - Danio rerio - Fry	58 days	

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
toluene	2.73	90	low
4-tert-butylphenol	3	44 to 48	low
benzyl alcohol	0.87	-	low
m-phenylenebis(methylamine)	0.18	2.69	low
2,4,6-tris(dimethylaminomethyl)phenol	0.219	-	low
4-nonylphenol, branched	5.4	740	high

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 12. Ecological information


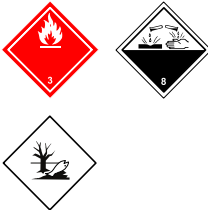

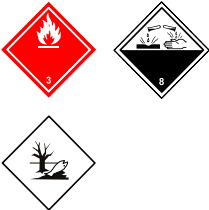

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN3469	UN3469	UN3469	UN3469	UN3469
UN proper shipping name	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE	PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE
Transport hazard class(es)	3 (8) 	3 (8) 	3 (8) 	3 (8) 	3 (8) 
Packing group	II	II	II	II	II
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Marine Pollutant (s): 4-tert-butylphenol, N-(3-(trimethoxysilyl)propyl) ethylenediamine	Yes. The environmentally hazardous substance mark is not required.

Additional information

DOT Classification : **Reportable quantity** 3240.8 lbs / 1471.3 kg [407 gal / 1540.6 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.40-2.42 (Class 8), 2.7 (Marine pollutant mark).
The marine pollutant mark is not required when transported by road or rail.

Section 14. Transport information

- IMDG** : **Emergency schedules** F-E, S-C
The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.
- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

Section 15. Regulatory information

- U.S. Federal regulations** : **TSCA 5(a)2 final significant new use rules:** 4-nonylphenol, branched
TSCA 5(e) substance consent order: No products found.
TSCA 8(a) PAIR: 4-tert-butylphenol; 4-nonylphenol, branched
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
TSCA 12(b) one-time export: 4-nonylphenol, branched
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: toluene
Clean Water Act (CWA) 311: toluene
- 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 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
No products were found.						

SARA 311/312

- Classification** : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (oral) - Category 4
SKIN CORROSION - Category 1B
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
toluene	≥25 - ≤50	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1
4-tert-butylphenol	≥10 - ≤20	SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 TOXIC TO REPRODUCTION (Fertility) - Category 2
benzyl alcohol	≤11	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A
N-(3-(trimethoxysilyl)propyl) ethylenediamine	≤10	ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1
m-phenylenebis(methylamine)	≤8.4	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B
trimethylhexane-1,6-diamine	≤10	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1
2,4,6-tris(dimethylaminomethyl) phenol	≤10	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	≤3	SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1
4-nonylphenol, branched	≤3	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 TOXIC TO REPRODUCTION (Fertility) - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	toluene	108-88-3	≥25 - ≤50
Supplier notification	toluene 4-nonylphenol, branched	108-88-3 84852-15-3	≥25 - ≤50 ≤3

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

State regulations

- Massachusetts** : The following components are listed: M-XYLENE-ALPHA,ALPHA'-DIAMINE; MXDA; TOLUENE; METHYLBENZENE; BENZYL ALCOHOL
- New York** : The following components are listed: Toluene
- New Jersey** : The following components are listed: m-XYLENE alpha, alpha'-DIAMINE; 1, 3-BENZENEDIMETHANAMINE; TRIMETHYLHEXAMETHYLENEDIAMINE; 1, 6-HEXANEDIAMINE, C,C,C-TRIMETHYL-; TOLUENE; BENZENE, METHYL-
- Pennsylvania** : The following components are listed: 1,3-BENZENED, IMETHANAMINE; BENZENE, METHYL-; BENZENEMETHANOL

California Prop. 65

Section 15. Regulatory information

⚠ WARNING: Reproductive Harm - www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
toluene	-	Yes.
methanol	-	Yes.

Inventory list

Australia	: High Solids Epoxy Primer EC-265. This material is being introduced under a Commercial Evaluation Permit granted under section 21G of the Industrial Chemicals (Notification and Assessment) Act 1989.
Canada	: At least one component is not listed in DSL but all such components are listed in NDSL.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS): All components are listed or exempted. Japan inventory (ISHL): At least one component is not listed.
Malaysia	: At least one component is not listed.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: At least one component is not listed.
Taiwan	: All components are listed or exempted.
Thailand	: At least one component is not listed.
Turkey	: At least one component is not listed.
Viet Nam	: At least one component is not listed.

Section 16. Other information

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

Health	*	3
Flammability		3
Physical hazards		0

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 and the associated label are not required on SDSs or products leaving a facility 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 trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
ACUTE TOXICITY (oral) - Category 4	Calculation method
SKIN CORROSION - Category 1B	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
TOXIC TO REPRODUCTION (Fertility) - Category 2	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

History

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Section 16. Other information

Date of printing	: 27 January 2023
Date of issue/ Date of revision	: 27 January 2023
Date of previous issue	: 27 January 2023
Version	: 1.07
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

▣ Indicates information that has changed from previously issued version.

Notice to reader

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws. Any person using this product must determine for themselves, by preliminary tests or otherwise, the suitability of this product for their purposes. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. The application, use and processing of AkzoNobel's products and the products manufactured by Buyer on the basis of AkzoNobel's technical advice are beyond AkzoNobel's control and, therefore, entirely Buyer's own responsibility. AkzoNobel makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

IA_493

SAFETY DATA SHEET

Thinner Reducer TR-114

Section 1. Identification

GHS product identifier : Thinner Reducer TR-114
SDS code : 007941

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Industrial use
Uses advised against
Consumer use

Manufacturer : Akzo Nobel Coatings, Inc.
1 East Water Street
Waukegan, IL 60085
USA
Tel. 1 847 623 4200
Email: customer.service@akzonobel.com
Akzo Nobel Coatings Ltd.
110 Woodbine Downs Blvd.
Unit #4 Etobicoke, Ontario
Canada M9W 5S6
+1 (800) 618-1010

Importer : Cía. Mexicana de Pinturas International
S.A. de C.V., Carretera Anillo Periférico,
No Ext 205, No Interior A, Colonia HDA S JOSE, Garcia, Garcia, CP 66000, Nuevo Leon.
RFC: ANA9510267C4

Emergency telephone number (with hours of operation) : CHEMTREC +1 (800) 424-9300 (Inside the US)
CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)

Section 2. Hazards identification

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

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
EYE IRRITATION - Category 2B
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

GHS label elements

Date of issue/Date of revision : 1/27/2023 **Version** : 1.05
Date of previous issue : 1/27/2023 1/14

Section 2. Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapor.
 Causes eye irritation.
 May cause an allergic skin reaction.
 May cause respiratory irritation.

Precautionary statements

Prevention

: Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
4-chloro- α,α,α -trifluorotoluene	$\geq 50 - \leq 75$	98-56-6
acetone	$\geq 25 - \leq 50$	67-64-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed

Section 4. First aid measures

- person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes eye irritation.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Section 5. Fire-fighting measures

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
carbonyl halides
- Special protective actions for fire-fighters** : 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.
- 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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- 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 and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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). 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.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use

Section 7. Handling and storage

- explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : 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. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
4-chloro- α,α,α -trifluorotoluene acetone	<p>None.</p> <p>ACGIH TLV (United States, 3/2019). STEL: 500 ppm 15 minutes. TWA: 250 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 590 mg/m³ 10 hours. TWA: 250 ppm 10 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 2400 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). Notes: The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors. STEL: 2400 mg/m³ 15 minutes. STEL: 1000 ppm 15 minutes. TWA: 1800 mg/m³ 8 hours. TWA: 750 ppm 8 hours.</p>

- Appropriate engineering controls** : 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.
- 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.

Individual protection measures

Section 8. Exposure controls/personal protection

- 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.
- Eye/face protection** : 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : 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.
- Body protection** : 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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Colorless.

Odor : Pungent.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Boiling point : 56°C (132.8°F)

boiling range : Not available.

Flash point : Closed cup: -17°C (1.4°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits

Upper: : Not determined.

Lower: : Not determined.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.14

Density : 9.51 lbs/gal 1.14 g/cm³

Solubility : Not available.

Solubility in water : Not available.

Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (room temperature): 0.35 cm ² /s (35 cSt)
Weight Volatiles	: 100% (w/w)
Volume Volatiles	: 100.00 % (v/v)
Weight Solids	: 0.00 % (w/w)
Volume Solids	: 0 % (v/v)
Regulatory VOC	: 0.0 lbs/gal 0 g/l minus water and exempt solvents
VOC Actual	: 0.0 lbs/gal 0 g/l

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4-chloro- α,α,α -trifluorotoluene acetone	LD50 Oral	Mouse	11500 mg/kg	-
	LD50 Oral	Rat	13 g/kg	-
	LC50 Inhalation Vapor	Mouse	44 g/m ³	4 hours
	LC50 Inhalation Vapor	Rat	50100 mg/m ³	8 hours
	LD50 Intraperitoneal	Mouse	1297 mg/kg	-
	LD50 Intravenous	Rat	5500 mg/kg	-
	LD50 Oral	Mouse	3 g/kg	-
	LD50 Oral	Rabbit	5340 mg/kg	-
	LD50 Oral	Rat	5800 mg/kg	-
	LD50 Oral	Rat	5800 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Rabbit	-	10 UI	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
acetone	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes eye irritation.
Inhalation : May cause respiratory irritation.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
irritation
watering
redness
Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
Skin contact : Adverse symptoms may include the following:
irritation
redness
Ingestion : No specific data.

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 11493300 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 11727900 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute EC50 20.565 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 7550000 µg/l Fresh water	Crustaceans - Asellus aquaticus	48 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 8098000 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 7810000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 6900 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 8800000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 7280000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 6210000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 8120000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Acute LC50 8000 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 100 µl/L Marine water	Algae - Skeletonema costatum	72 hours
	Chronic NOEC 100 µl/L Marine water	Algae - Skeletonema costatum	96 hours
	Chronic NOEC 0.5 ml/L Marine water	Algae - Karenia brevis	96 hours
Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours	
Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Chydoridae	21 days	
Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Maxillopoda	21 days	

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Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Bosminidae	21 days
Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Macrothricidae	21 days
Chronic NOEC 1 g/L Fresh water	Daphnia - Daphnia magna	21 days
Chronic NOEC 1 g/L Fresh water	Daphnia - Daphnia magna	21 days
Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
acetone	-0.23	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.








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

Section 13. Disposal considerations

Disposal methods : 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport hazard class(es)	3 	3  	3 	3  	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Marine Pollutant (s): 4-chloro- α,α,α -trifluorotoluene	Yes. The environmentally hazardous substance mark is not required.

Additional information

- DOT Classification** : **Reportable quantity** 19999.4 lbs / 9079.7 kg [2104 gal / 7964.7 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
Special provisions 383
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).
The marine pollutant mark is not required when transported by road or rail.
- IMDG** : **Emergency schedules** F-E, _S-E_
The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.
- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

Section 15. Regulatory information

- U.S. Federal regulations** :
- TSCA 4(a) final test rules:** 4-chloro- α,α,α -trifluorotoluene
 - TSCA 5(a)2 final significant new use rules:** No products found.
 - TSCA 5(e) substance consent order:** No products found.
 - TSCA 8(a) PAIR:** 4-chloro- α,α,α -trifluorotoluene
 - TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
 - TSCA 12(b) one-time export:** 4-chloro- α,α,α -trifluorotoluene
 - United States inventory (TSCA 8b):** All components are listed or exempted.

Section 15. Regulatory information

Clean Air Act Section 112 : Not listed

(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 : Not listed
Class I Substances

Clean Air Act Section 602 : Not listed
Class II Substances

DEA List I Chemicals : Not listed
(Precursor Chemicals)

DEA List II Chemicals : Listed
(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
No products were found.						

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2
EYE IRRITATION - Category 2B
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Composition/information on ingredients

Name	%	Classification
4-chloro- α,α,α -trifluorotoluene	$\geq 50 - \leq 75$	FLAMMABLE LIQUIDS - Category 3 SKIN SENSITIZATION - Category 1
acetone	$\geq 25 - \leq 50$	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	No products were found.		
Supplier notification	No products were found.		

State regulations

Massachusetts : The following components are listed: ACETONE

New York : The following components are listed: Acetone; 2-Propanone

New Jersey : The following components are listed: ACETONE; 2-PROPANONE

Pennsylvania : The following components are listed: 2-PROPANONE

California Prop. 65

 **WARNING:** Cancer - www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
4-chloro- α,α,α -trifluorotoluene	-	-

Inventory list

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Section 15. Regulatory information

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
Malaysia	: At least one component is not listed.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: At least one component is not listed.
Turkey	: At least one component is not listed.
Viet Nam	: All components are listed or exempted.

Section 16. Other information

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

Health	/	2
Flammability		3
Physical hazards		0

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 and the associated label are not required on SDSs or products leaving a facility 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 trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
EYE IRRITATION - Category 2B	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method

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Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
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Section 16. Other information

UN = United Nations

 Indicates information that has changed from previously issued version.

Notice to reader

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws. Any person using this product must determine for themselves, by preliminary tests or otherwise, the suitability of this product for their purposes. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. The application, use and processing of AkzoNobel's products and the products manufactured by Buyer on the basis of AkzoNobel's technical advice are beyond AkzoNobel's control and, therefore, entirely Buyer's own responsibility. AkzoNobel makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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