6/9/2025

Dear J-B Weld Customer,

Thank you for your interest in our products. This product is sold in a form where multiple discrete mixtures are present. The SDS for each part is presented below as shown in the table of contents. Please review the safety information for each part. If there are any questions or concerns, please contact our regulatory affairs department at regulatoryaffairs@jbweld.com.

The J-B Weld Team

Product name : HighHeat™ Syringe

Product code : 50197CAN

J-B Weld Company
400 CMH Road
Sulphur Springs, TX 75482 USA
info@jbweld.com
Tel: +1 (903) 885-7696
Website: www.jbweld.com

SAFETY DATA SHEET

HighHeat™ Syringe - Part A

Section 1. Identification

Product identifier : HighHeat™ Syringe - Part A

Product code : 50197A

Other means of identification : Resins.

Product type : Liquid.

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

Identified uses
HighHeat is a two-part epoxy system that provides strong, lasting, heat-resistant repairs up to 550°F. Mixed at a ratio of 1:1, it forms a permanent bond that has a 4730 PSI strength and is chemical and fuel resistant. At room temperature, HighHeat sets in 1 hour and cures in 24 hours. HighHeat's cure time is accelerated by heat and can cure in 1 hour at 250°F.

Uses advised against	Reason
See information supplied by the manufacturer.	

Supplier's details : J-B Weld Company
400 CMH Road
Sulphur Springs, TX 75482 USA
info@jbweld.com
Tel: +1 (903) 885-7696
Website: www.jbweld.com

Emergency telephone number : US: +1 (800) 535-5053 (INFOTRAC®)
Outside USA: +1 (352) 323-3500 (INFOTRAC® INTL)

Section 2. Hazard identification

Classification of the substance or mixture : ACUTE TOXICITY (oral) - Category 4

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : Harmful if swallowed.

Precautionary statements

General : Read carefully and follow all instructions. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response : IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

Storage : Not applicable.

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

Supplemental label elements : Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 97%

Section 2. Hazard identification

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 97%

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Resins.

Ingredient name	Synonyms	% (w/w)	Identifiers	
Iron	IRON, ELEMENTAL; carbonyl iron powder; Fine iron powder; iron powders; IRON WIRE; Iron Concentrate; IRON POWDER; Iron Sponge, Spent; Iron as Fe, dry basis	≥1 - ≤5	CAS: 7439-89-6	

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified 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 if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. 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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. 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 : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Section 4. First-aid measures

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
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.

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. 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert 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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 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. 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

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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. 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: safety glasses with side-shields.

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.

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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Black.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point or initial boiling point and boiling range : >150°C (>302°F)

Flash point : Closed cup: >93.3°C (>199.9°F)

Evaporation rate : Not available.

Flammability : Not available.

Lower and upper explosion limit/flammability limit : Not available.

Vapor pressure :

	Vapor Pressure at 20˚C			Vapor pressure at 50˚C		
Ingredient name	**mm Hg**	**kPa**	**Method**	**mm Hg**	**kPa**	**Method**
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	0.62	0.083	EU A.4			

Relative vapor density : Not available.

Relative density : Not available.

Solubility in water : Not available.

Miscible with water : No.

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

Section 9. Physical and chemical properties

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Iron	350	662	

Decomposition temperature : Not available.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Particle characteristics

Median particle size : Not applicable.

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 : No specific data.

Incompatible materials : No specific data.

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
Iron	**Rat - Oral - LD50** 750 mg/kg Toxic effects: Blood - Changes in serum composition (e.g., TP, bilirubin, cholesterol) Enzyme inhibition, induction, or change in blood or tissue levels - Transaminases

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Not available.

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 : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Section 11. Toxicological information

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

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.

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
HighHeat™ Syringe - Part A	1125.1	N/A	N/A	N/A	N/A
Iron	750	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result
Iron	**Acute - LC50 - Marine water** Crustaceans - Common shrimp, sand shrimp - *Crangon crangon* 33000 to 100000 µg/l [48 hours] Effect: Mortality **Acute - EC50 - Fresh water** Aquatic plants - Duckweed - *Lemna minor* 3700 µg/l [4 days] Effect: Growth **Chronic - NOEC - Marine water** Algae - Dinoflagellate - *Glenodinium halli* 100 mg/l [72 hours] Effect: Population

Section 12. Ecological information

Acute - LC50 - Marine water
Fish - Mudskipper - *Periophthalmus waltoni* - Adult
6.48 µg/l [96 hours]
Effect: Mortality

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/Water partition coefficient : 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TDG Classification	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Section 14. Transport information

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.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : The following components are listed: manganese (and its compounds)

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.

Japan : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.

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 : All components are listed or exempted.

Turkey : All components are listed or exempted.

United States : All components are active or exempted.

Viet Nam : All components are listed or exempted.

Section 16. Other information

History

Date of printing : 6/9/2025

Date of issue/Date of revision : 6/9/2025

Date of previous issue : 6/9/2025

Version : 1.03

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient

Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 4	Calculation method
AQUATIC HAZARD (ACUTE) - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 1	Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

HighHeat™ Syringe - Part B

Section 1. Identification

Product identifier : HighHeat™ Syringe - Part B

Product code : 50197B

Other means of identification : Hardener for resins.

Product type : Liquid.

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

Identified uses
HighHeat is a two-part epoxy system that provides strong, lasting, heat-resistant repairs up to 550°F. Mixed at a ratio of 1:1, it forms a permanent bond that has a 4730 PSI strength and is chemical and fuel resistant. At room temperature, HighHeat sets in 1 hour and cures in 24 hours. HighHeat's cure time is accelerated by heat and can cure in 1 hour at 250°F.

Uses advised against	Reason
See information supplied by the manufacturer.	

Supplier's details : J-B Weld Company
400 CMH Road
Sulphur Springs, TX 75482 USA
info@jbweld.com
Tel: +1 (903) 885-7696
Website: www.jbweld.com

Emergency telephone number : US: +1 (800) 535-5053 (INFOTRAC®)
Outside USA: +1 (352) 323-3500 (INFOTRAC® INTL)

Section 2. Hazard identification

Classification of the substance or mixture : SKIN CORROSION - Category 1C
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.

Precautionary statements

General : Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Avoid breathing vapor. Wash thoroughly after handling.

Section 2. Hazard identification

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. If skin irritation or rash occurs: Get medical advice or attention. Wash contaminated clothing before reuse. 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 doctor.

Storage : Store locked up.

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

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Hardener for resins.

Ingredient name	Synonyms	% (w/w)	Identifiers	
Fatty acids, C18-unsatd., dimers, compds. with polyethylenepolyamine-tall-oil fatty acid reaction products	Fatty acids, C18-unsaturated, dimers, compounds with polyethylenepolyamine, tall oil fatty acid reaction products; Tall oil acids, polyethylenepolyamine condensate, C36 dimer acid salts; Tall oil acids, polyethylenepolyamine reaction products, dimer acid salts; Tall oil acids, polyethylenepolyamine reaction product, dimer acid salts; Tall oil acids-polyethylenepolyamine condensate, dimer acid salts; Ethoxylated tall oil acid, polyethylene polyamine condensate, dimeracid salt; Fatty acids, (C=18)-unsatd., dimers, compds. with polyethylenepolyamine-tall oil fatty acid reaction products; Fatty acids, C18-unsaturated, dimers, compounds with polyethylenepolyamine-tall-oil fatty acid reaction products	≥10 - ≤30	CAS: 64754-99-0	
2,4,6-tris(dimethylaminomethyl) phenol	Phenol, 2,4,6-tris[(dimethylamino) methyl]-; Phenol, 2,4,6-tris (dimethylaminomethyl)-; 2,4,6-tris((dimethylamino)methyl)phenol; Phenol, 2,4,6-tris{(dimethylamino) methyl}-; 2,4,6-Tris[(dimethylamino) methyl]phenol; 2,4,6-Tri (dimethylaminomethyl)phenol; 2,4,6-Tris(N,N-dimethylaminomethyl) phenol; 2,4,6-Tridimethylaminomethylphenol; TRIS (2,4,6-DIMETHYLAMINOMONOMETHYL) PHENOL; TRIS (2,4,6-DIMETHYLAMINOMETHYL) PHENOL; TRIS[(DIMETHYLAMINO) METHYL]PHENOL, 2,4,6-	≥5 - ≤10	CAS: 90-72-2	
Tetraethylenepentamine	tetraethylenepentamine;	≥1 - ≤5	CAS: 112-57-2	

Section 3. Composition/information on ingredients

	1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl) amino]ethyl]-; 1,2-Ethanediamine, N-(2-aminoethyl)-N'-[2-[(2-aminoethyl) amino]ethyl]-; 1,2-Ethanediamine, N-(2-aminoethyl)-N'-(2-((2-aminoethyl) amino)ethyl)-; 3,6,9-Triazaundecane-1,11-diamine and preparations containing it; 3,6,9-Triazaundecane-1,11-diamine; Tetrene; 1,11-Diamino-3,6,9-triazaundecane; 3,6,9-Triazaundecane-1,11-diyldiamine; TEPA; Alkylated (or alkenylated) (C1-24) or unmodified polyalkylenepolyamine			
titanium dioxide	Titanium dioxide in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm	≥1 - ≤5	CAS: 13463-67-7	
N,N,N',N'-tetramethyl-2,2'-oxybis (ethylamine)	Ethanamine, 2,2'-oxybis[N,N-dimethyl-; Bis(2-dimethylaminoethyl) ether; Bis(2-(dimethylamino)ethyl) ether; NIAX Catalyst A1; NIAX A99; 2,2'-Oxybis(N,N-dimethyl ethylamine); bis(2-Dimethylamino-ethyl) ether; DMAEE; Ethylamine, 2,2'-oxybis(N,N-dimethyl-; bis (dimethylaminoethyl) ether; bis(2-(DIMETHYLAMINO)-ETHYL)ETHER	≥1 - ≤5	CAS: 3033-62-3	
Triethylenetetramine	triethylenetetramine; trientine; 1,2-Ethanediamine, N1,N2-bis (2-aminoethyl)-; 1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-; N,N'-Bis (2-aminoethyl)-1,2-ethanediamine; 3,6-diazaoctamethylenediamine; N, N'-bis(2-aminoethyl)ethane-1,2-diamine; N1,N2-bis (2-Aminoethyl)-1,2-ethanediamine; 1,4,7,10-Tetraazadecane; 3,6-Diazaoctane-1,8-diamine; N,N'-Bis(2-aminoethyl)ethylenediamine	≥0.1 - ≤1	CAS: 112-24-3	
Bisphenol A	4,4'-isopropylidenediphenol; 4,4′-isopropylidenedi-phenol; Phenol, 4,4'-(1-methylethylidene)bis-; 2,2-Bis (4-hydroxyphenyl)propane; 4,4'-(1-Methylethylidene)bis[phenol; diphenylolpropane; BPA; Phenol, 4,4'-isopropylidenedi-; 4,4’-(propane-2,2-diyl)diphenol; 4,4’-isopropylidenediphenol; BPA; 4,4'-(1-Methylethylidene)bisphenol	≥0.1 - ≤1	CAS: 80-05-7	

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified 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 : 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. 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 : No known significant effects or critical hazards.

Skin contact : Causes severe burns. 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:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
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

Section 4. First-aid measures

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 an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

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.

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. Do not breathe 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

Section 6. Accidental release measures

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert 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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. 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.

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. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 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. 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

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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 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.

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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Bluish-grey.

Odor : Characteristic.

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point or initial boiling point and boiling range : Not available.

Flash point :

	Closed cup			Open cup		
Ingredient name	**°C**	**°F**	**Method**	**°C**	**°F**	**Method**
Triethylenetetramine	143	289.4				
Tetraethylenepentamine				163	325.4	
propylidynetrimethanol	172	341.6				
Bisphenol A	227	440.6				

Evaporation rate : Not available.

Flammability : Not available.

Section 9. Physical and chemical properties

Lower and upper explosion limit/flammability limit : Not available.

Vapor pressure :

Ingredient name	Vapor Pressure at 20˚C			Vapor pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
N,N,N',N'-tetramethyl-2,2'-oxybis (ethylamine)	0.36753	0.049				
aluminium hydroxide	<0.075	<0.01				
2,4,6-tris(dimethylaminomethyl) phenol	0.056	0.0075	EU A.4			
Triethylenetetramine	<0.0098	<0.0013				
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	0	0				
Bisphenol A	0	0	OECD 104	0	0	OECD 104
propylidynetrimethanol	0	0				

Relative vapor density : Not available.

Relative density : Not available.

Solubility in water : Not available.

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

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Tetraethylenepentamine	321	609.8	
Triethylenetetramine	337.78	640	
2,4,6-tris(dimethylaminomethyl)phenol	382	719.6	EU A.15
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	398	748.4	
Bisphenol A	510	950	

Decomposition temperature : Not available.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Particle characteristics

Median particle size : Not applicable.

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 : No specific data.

Incompatible materials : No specific data.

Section 10. Stability and reactivity

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
2,4,6-tris(dimethylaminomethyl)phenol	**Rat - Oral - LD50** 1200 mg/kg Toxic effects: Peripheral Nerve and Sensation - Flaccid paralysis without anesthesia (usually neuromuscular blockage) Lung, Thorax, or Respiration - Dyspnea **Rat - Dermal - LD50** 1280 mg/kg
Tetraethylenepentamine	**Rat - Oral - LD50** 3990 mg/kg
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	**Rat - Oral - LD50** 571 mg/kg
Triethylenetetramine	**Rat - Oral - LD50** 2500 mg/kg **Rabbit - Dermal - LD50** 805 mg/kg
Bisphenol A	**Rat - Oral - LD50** 1200 mg/kg Toxic effects: Effects on Fertility - Female fertility index (e.g., number of females pregnant per number of sperm-positive females; number of females pregnant per number of females mated)

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name	Result
2,4,6-tris(dimethylaminomethyl)phenol	**Rat - Skin - Mild irritant** Amount/concentration applied: 0.025 Ml **Rat - Skin - Severe irritant** Amount/concentration applied: 0.25 Ml **Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 2 mg **Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 uL
Tetraethylenepentamine	**Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 5 mg **Rabbit - Skin - Severe irritant** Amount/concentration applied: 495 mg
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	**Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 5 mg **Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 mg **Rabbit - Skin - Severe irritant** Amount/concentration applied: 500 mg
Triethylenetetramine	**Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours

Section 11. Toxicological information

	Amount/concentration applied: 5 mg **Rabbit - Skin - Severe irritant** Amount/concentration applied: 490 mg
Bisphenol A	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Skin - Mild irritant** Amount/concentration applied: 250 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
2,4,6-tris(dimethylaminomethyl)phenol	**Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 50 ug
Tetraethylenepentamine	**Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 mg **Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 5 mg
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	**Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 250 ug **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 1 mg
Triethylenetetramine	**Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 49 mg
Bisphenol A	**Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 250 ug

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Bisphenol A	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

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 serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes severe burns. 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:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
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

Section 11. Toxicological information

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.

Conclusion/Summary [Product] : Not available.

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

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2,4,6-tris(dimethylaminomethyl)phenol	1200	1280	N/A	N/A	N/A
Tetraethylenepentamine	3990	300	N/A	N/A	N/A
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	571	N/A	N/A	N/A	N/A
Triethylenetetramine	2500	805	N/A	N/A	N/A
Bisphenol A	1200	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result
titanium dioxide	**Acute - LC50** Crustaceans 5.5 mg/l [48 hours]
Triethylenetetramine	**Acute - LC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* 33900 µg/l [48 hours] Effect: Intoxication

Section 12. Ecological information

Bisphenol A

Acute - EC50 - Marine water
Algae - Diatom - *Skeletonema costatum*
1000 µg/l [96 hours]
Effect: Growth
Chronic - NOEC - Fresh water
Fish - Goldfish - *Carassius auratus* - Adult
Age: 2 to 3 years
0.2 µg/l [90 days]
Effect: Reproduction
Chronic - NOEC - Fresh water
Algae - Algae - *Chlorolobion braunii* - Exponential growth phase
2 mg/l [4 days]
Effect: Population
Acute - LC50 - Marine water
Fish - Rivulus - *Rivulus marmoratus* - Embryo
3.5 mg/l [96 hours]
Effect: Mortality
Chronic - NOEC - Marine water
Crustaceans - Harpacticoid copepod - *Tigriopus japonicus* - Nauplii
Age: <24 hours
10 µg/l [21 days]
Effect: Reproduction
Acute - LC50 - Marine water
Crustaceans - Brine shrimp - *Artemia sinica*
Age: 15 days
50.4 µg/l [48 hours]
Effect: Mortality

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
2,4,6-tris (dimethylaminomethyl) phenol	0.219	-	Low
Triethylenetetramine	-1.66 to -1.4	-	Low
Bisphenol A	3.4	20 to 67	Low

Mobility in soil

Soil/Water partition coefficient : 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TDG Classification	DOT Classification	IMDG	IATA
UN number	UN1760	UN1760	UN1760	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (2,4,6-tris (dimethylaminomethyl) phenol, 3,6,9-triazaundecamethylenediamine, mixture)	Corrosive liquids, n.o.s. (2,4,6-tris (dimethylaminomethyl) phenol, 3,6,9-triazaundecamethylenediamine, mixture)	CORROSIVE LIQUID, N.O.S. (2,4,6-tris (dimethylaminomethyl) phenol, 3,6,9-triazaundecamethylenediamine, mixture)	Corrosive liquid, n.o.s. (2,4,6-tris (dimethylaminomethyl) phenol, 3,6,9-triazaundecamethylenediamine, mixture)
Transport hazard class(es)	8 	8 	8 	8 
Packing group	III	III	III	III
Environmental hazards	No.	No.	No.	No.

Additional information

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).
Explosive Limit and Limited Quantity Index 5
Passenger Carrying Road or Rail Index 5
Special provisions 16

DOT Classification : **Limited quantity** Yes.
Packaging instruction Exceptions: 154. Non-bulk: 203. Bulk: 241.
Quantity limitation Passenger aircraft/rail: 5 L. Cargo aircraft: 60 L.
Special provisions IB3, T7, TP1, TP28

IMDG : **Emergency schedules** F-A, S-B
Special provisions 223, 274
IMDG Code Segregation group SGG18 - Alkalis

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 5 L. Packaging instructions: 852. Cargo Aircraft Only: 60 L. Packaging instructions: 856. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y841.
Special provisions A3, A803

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.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.

Japan : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : Not determined.

Taiwan : All components are listed or exempted.

Thailand : All components are listed or exempted.

Turkey : All components are listed or exempted.

United States : All components are listed or exempted.

Viet Nam : All components are listed or exempted.

Section 16. Other information

History

Date of printing : 6/9/2025

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Date of previous issue : 6/9/2025

Version : 1.02

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
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)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 2	On basis of test data SKIN CORROSION/ IRRITATION Calculation method Calculation method Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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