

1	PRODUCT AND COMPANY IDENTIFICATION
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Supplier Details: Chemline Incorporated
5151 Natural Bridge Road
Saint Louis, MO 63115

Phone: 314-664-2230
Fax: 314-664-1355
Web: www.chemline.net
Emergency: CHEMTREC 800-424-9300 (24 HOUR SERVICE)

2	HAZARDS IDENTIFICATION
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Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

- Health, Serious Eye Damage/Eye Irritation, 1
- Health, Skin corrosion/irritation, 1 C
- Environmental, Hazards to the aquatic environment - Acute, 1
- Environmental, Hazards to the aquatic environment - Chronic, 1
- Health, Specific target organ toxicity - Repeated exposure, 2
- Health, Serious Eye Damage/Eye Irritation, 2 A
- Health, Acute toxicity, 4 Oral

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

- H318 - Causes serious eye damage
- H314 - Causes severe skin burns and eye damage
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H319 - Causes serious eye irritation
- H302 - Harmful if swallowed

GHS Precautionary Statements:

- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 - Wash exposed skin thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301 + P312 - IF SWALLOWED: Call a POISON CENTER/ doctor/...if you feel unwell.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 - Immediately call a POISON CENTER or doctor/ physician.
- P330 - Rinse mouth.
- P391 - Collect spillage.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

Route of Entry: Eyes; Ingestion; Inhalation; Skin;

Target Organs:	Eyes; Skin; Respiratory system;
Inhalation:	Heating, spraying, foaming, or otherwise mechanically dispersing (drumming, venting or pumping) operations of this blend may generate more vapor or aerosol concentrations of its components. May cause sneezing and slight irritation of nose, throat and lungs.
Skin Contact:	Prolonged or repeated exposure can cause skin irritation or dermatitis in some individuals.
Eye Contact:	May cause watering of the eye and irritation of the conjunctiva.
Ingestion:	May cause nausea or vomiting.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients		
CAS#	%	Chemical Name
9046-10-0	60-80%	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-
68479-98-1	10-30%	Benzenediamine, ar,ar-diethyl-ar-methyl-
13463-67-7	0-5%	Titanium dioxide
125643-61-0	0-3%	Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, C7-9-branched alkyl esters

4 FIRST AID MEASURES

Inhalation:	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
Skin Contact:	Wash with large quantities of soap and water. Wash clothing before reuse. Seek medical attention if redness, burning or an itching sensation develops or persists after the area is washed.
Eye Contact:	Flush eyes with plenty of water for at least 15 minutes. Use fingers to assure that the eyelids are separated and that the eye is being irrigated. Consult a physician.
Ingestion:	Bring to the attention of a physician.

5 FIRE FIGHTING MEASURES

Flammability:	NONE
Flash Point:	>300°F
Flash Point Method:	COC
Autoignition Temp:	NDA

Use dry chemical, foam, carbon dioxide, halogenated agents or water. Use cold water spray to cool fire-exposed containers to minimize risk of rupture. A solid stream of water directed into the hot burning liquid could cause frothing. If possible, contain fire run-off water. Positive-pressure self-contained breathing apparatus with full face-piece and full protective clothing should be worn by fire-fighters. Combustion may produce carbon dioxide, carbon monoxide, nitrogen oxides and other toxic fumes.

6 ACCIDENTAL RELEASE MEASURES

Spill: Remove all sources of flames, heating elements, gas engines, etc. Emergency clean-up personnel should wear chemical goggles, rubber or plastic gloves and clothing as required to protect against contact. Prevent spreading and contamination of surface waters and drinking supplies. Notify local health officials and other appropriate agencies if such contamination should occur.

Clean up: With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material such as clay or vermiculite and transfer to steel waste containers. Ventilate area to remove the remaining vapors.

7 HANDLING AND STORAGE

Handling Precautions: Handling: Avoid skin and eye contact. Use personal protective equipment when transferring material to or from drums, totes or other containers. If contamination with isocyanates is suspected, do not reseal containers. Do not smoke or use naked lights, open flames, space

heaters, or other ignition sources near pouring, frothing or spraying operations
Special Emphasis for Spray Applications of Mixed Products Containing Isocyanates: Inspect the application area for the potential to expose other persons or for overspray to drift onto buildings, vehicles or other property. When spraying building exteriors, persons entering or exiting the building as well as those inside could be exposed to polyisocyanates due to wind conditions, open windows or air intakes. Do not begin application work until these potential problems have been corrected.

Storage Requirements: Storage: When stored between 15° and 30°C (60° and 85°F) in sealed containers, typical shelf life is 6 months or more from the date of manufacture. Consult technical data sheet for shelf life requirements affecting performance quality. Opened containers must be handled properly to prevent moisture pickup.

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EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94).

Uses requiring heating and/or spraying may require more aggressive engineering controls or PPE.

Personal Protective Equipment: HMIS PP, X | Consult your supervisor for special instructions

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M)

Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Do not let product enter drains.

Poly[oxy(methyl-1,2-ethanediy)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)- cas#:(9046-10-0) [60-80%]

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PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Pigmented liquid.	Odor:	Mild
Physical State:	Liquid	Solubility:	Not soluble in water.
Spec Grav./Density:	8.58 lb/gallon	Percent Volatile:	By weight <1%; By volume <1%
Viscosity:	408 cPs S2@20RPM	Flash Point:	>300°F
Boiling Point:	NDA	Vapor Density:	>1
Flammability:	None	Auto-ignition Temp:	NDA
Evap. Rate:	<1		

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STABILITY AND REACTIVITY

Chemical Stability: This is a stable material. Avoid high temperatures, sparks, flame and extended exposure over 110°F (45°C).

Conditions to Avoid: High temperatures, sparks, flame and extended exposure over 110°F (45°C).

Materials to Avoid: isocyanates; Oxidizing materials; acids;

Hazardous Polymerization: Will not occur.

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TOXICOLOGICAL INFORMATION

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)- cas#:(9046-10-0) [60-80%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - rat - 2,885.3 mg/kg
 Inhalation LC50 LC50 Inhalation - rat - 8 h - > 0.74 mg/l
 Dermal LD50 LD50 Dermal - rabbit - 2,980 mg/kg
 Other information on acute toxicity no data available

Skin corrosion/irritation: Skin - rabbit - Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days. - OECD Test Guideline 404

Serious eye damage/eye irritation: Eyes - rabbit - Corrosive to eyes - OECD Test Guideline 405

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: Animal testing did not show any mutagenic effects

Genotoxicity in vitro - Not mutagenic in Ames Test.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity

Specific target organ toxicity - single exposure (Globally Harmonized System):
 no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):
 no data available
Aspiration hazard

Potential health effects: Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin burns. Eyes Causes eye burns.

Signs and Symptoms of Exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Synergistic effects: no data available

Additional Information

Repeated dose toxicity - rat - Dermal - No observed adverse effect level - 250 mg/kg

Repeated dose toxicity - rat - Oral - No observed adverse effect level - 239 mg/kg RTECS: Not available

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ECOLOGICAL INFORMATION

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)- cas#:(9046-10-0) [60-80%]

Information on ecological effects

Toxicity:

Toxicity to fish semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 15 mg/l - 96 h.

static test NOEC - Oncorhynchus mykiss (rainbow trout) - 15 mg/l - 96 h

Toxicity to daphnia static test EC50 - Daphnia - 80 mg/l - 48 h.

and other aquatic Method: OECD Test Guideline 202 invertebrates

NOEC - Daphnia - 18 mg/l - 48 h

Persistence and degradability: Biodegradability Result: 0 % - According to the results of tests of biodegradability this product is not readily biodegradable. Method: OECD Test Guideline 301B

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life with long lasting effects.

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DISPOSAL CONSIDERATIONS

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

Do not allow material to enter sewers, a body of water, or contact the ground. Refer to RCRA 40 CFR 261, and/or any other appropriate federal, state or local requirements for proper classification information.

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TRANSPORT INFORMATION

Non DOT/RCRA regulated

Component (CAS#) [%] - CODES

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)- (9046-10-0) [60-80%] TSCA

Benzenediamine, ar,ar-diethyl-ar-methyl- (68479-98-1) [10-30%] TSCA

Titanium dioxide (13463-67-7) [0-5%] IARC, MASS, OSHAWAC, PA, TSCA, TXAIR

Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, C7-9-branched alkyl esters (125643-61-0) [0-3%] TSCA

Regulatory CODE Descriptions

TSCA = Toxic Substances Control Act

IARC = IARC Carcinogen Risks

MASS = MA Massachusetts Hazardous Substances List

OSHA = OSHA Workplace Air Contaminants

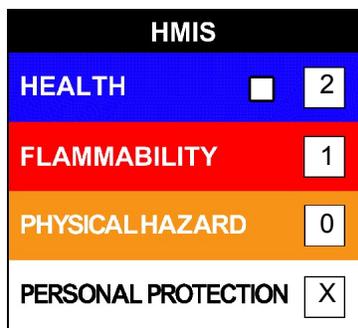
PA = PA Right-To-Know List of Hazardous Substances

TXAIR = TX Air Contaminants with Health Effects Screening Level

NFPA: Health = 2, Fire = 1, Reactivity = 0, Specific Hazard = None

HMIS III: Health = 2, Fire = 1, Physical Hazard = 0

HMIS PPE: X - Consult your supervisor for special instructions



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