

Flowlok PLRM_SA Part B

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HAZARDS IDENTIFICATION

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, 3
 Environmental, Hazards to the aquatic environment - Chronic, 3

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **WARNING**

GHS Hazard Pictograms:



GHS Hazard Statements:

H318 - Causes serious eye damage
 H314 - Causes severe skin burns and eye damage
 H402 - Harmful to aquatic life
 H412 - Harmful to aquatic life with long lasting effects

GHS Precautionary Statements:

P273 - Avoid release to the environment.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P305+351+338 - IF IN EYES: Rinse continuously 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.

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

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

Target Organs: Respiratory system; Skin; Eyes; Lungs;

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. Amines can produce severe respiratory tract irritation. This will be experienced as a discomfort in the nose, throat and chest, with nasal discharge, cough, headache and difficulty with breathing. Prolonged or repeated contact may result in lung damage.

Skin Contact: Prolonged contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.

Eye Contact: Will cause irritation on contact. Symptoms from amine exposure include watering or discomfort of the eyes with marked excess redness and swelling. Severe exposure could produce chemical burns of the cornea.

Ingestion: Amines can cause severe irritation and possible chemical burns of the mouth, throat, esophagus

and stomach with pain or discomfort in the mouth, throat, chest and abdomen. Symptoms include, nausea, vomiting, diarrhea, dizziness, thirst, circulatory collapse and coma. Aspiration may occur during swallowing or vomiting, resulting in lung damage

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients		
CAS#	%	Chemical Name
9046-10-0	<75%	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-(2-aminomethylethyl)-.omega.-(2-aminomethylethoxy)-
64852-22-8	<20%	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-(2-aminomethylethoxy)-
2095-02-5	<20%	1,3-Benzenediamine, 2,4-diethyl-6-methyl-
2095-01-4	<5%	1,3-Benzenediamine, 4,6-diethyl-2-methyl-
0	<10%	Proprietary amine compounds

4 FIRST AID MEASURES

- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility immediately.
- Skin Contact:** Remove contaminated clothing immediately. Wash with large quantities of soap and water. For severe exposure, get under safety shower after removing clothing, then get medical attention. 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. Seek immediate medical attention.
- Ingestion:** Seek immediate medical attention. Immediately give two glasses of water. Do not induce vomiting unless prompted to do so by a medical professional. Never give anything by mouth to an unconscious person.

5 FIRE FIGHTING MEASURES

- Flammability:** OSHA - none; DOT - none
- Flash Point:** >275°F
- Flash Point Method:** Pensky-Martens closed cup (ASTM D-93)
- Burning Rate:** N/A
- Autoignition Temp:** N/A
- LEL:** N/A
- UEL:** N/A

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.

Protective Equipment: Positive-pressure self-contained breathing apparatus with full face-piece and full protective clothing should be worn by fire-fighters.

6 ACCIDENTAL RELEASE MEASURES

Spill: Evacuate area. Isolate and confine spill area. Remove all sources of ignition sources like flames, heating elements, gas engines, etc. Use non-sparking tools. Emergency clean-up personnel should select the specific respirator based on contamination levels found. Use air purifying respirator equipped with full-face organic vapor cartridge if vapors are detected, or are irritating. In areas of high concentrations, fresh air-line respirators or self-contained breathing apparatus and protective

clothing should be used. 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 full 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

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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 from 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 dry area 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:

General/local ventilation typically control vapor levels very adequately. Uses requiring heating or spraying may require more ventilation or PPE.

Personal Protective Equipment:

HMIS PP, X | Consult your supervisor for special instructions

Personal protective equipment

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).

Hand 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 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.

Eye protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and 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.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Appearance:	Pigmented liquid.	Odor:	ammonia-like
Physical State:	Liquid	Molecular Formula:	N/A
Spec Grav./Density:	1.02 @ 77°F	Solubility:	Not soluble in water.
Boiling Point:	>500°F	Percent Volatile:	0
Flammability:	None	Freezing/Melting Pt.:	Not determined
Vapor Pressure:	0.9 mmHg @ 68°F	Flash Point:	>275°F
Evap. Rate:	<1	Vapor Density:	>1
		Bulk Density:	8.8 lbs/gal
		Auto-Ignition Temp:	NDA

Chemical Stability:	Product is stable under normal conditions.
Conditions to Avoid:	High temperatures, sparks, flame and extended exposure over 110°F (45°C).
Materials to Avoid:	oxidizing materials, isocyanates and acids
Hazardous Decomposition:	With high heat or fire: toxic levels of ammonia, oxides of nitrogen and some ketones or aldehydes may be produced.
Hazardous Polymerization:	Will not occur.

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

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/irritatio Skin - rabbit - Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours an observations up to 14 days. - OECD Test Guideline 40

Serious eye damage/eye irritatio Eyes - rabbit - Corrosive to eyes - OECD Test Guideline 40

Respiratory or skin sensitisation

Germ cell mutagenicit Animal testing did not show any mutagenic effect

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 a 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 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 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 carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

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 effect

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 Exposur Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.,

Cough Shortness of breath, Headache, Nausea

Synergistic effect

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

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

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 invertebrates Method: OECD Test Guideline 202

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.

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.

Non DOT/RCRA regulated

Component (CAS#) [%] - CODES

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

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-(2-aminomethylethoxy)- (64852-22-8) TSCA

1,3-Benzenediamine, 2,4-diethyl-6-methyl- (2095-02-5) TSCA

1,3-Benzenediamine, 4,6-diethyl-2-methyl- (2095-01-4) TSCA

Regulatory CODE Descriptions

TSCA = Toxic Substances Control Act

NFPA: Health = 3, Fire = 1, Reactivity = 1, Specific Hazard = None
HMIS III: Health = 3, Fire = 1, Physical Hazard = 1
HMIS PPE: X - Consult your supervisor for special instructions



HMIS	
HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X

Disclaimer:

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