

MarChem Polyurethane Systems

Safety Data Sheet

1. Identification of Substance:

Product Name: H3168

Supplier Identification:

MarChem Polyurethane Systems

Telephone:

(714) 921-2300

Address:

212 W Taft Ave,
Orange, CA 92865

24-Hr. Emergency Phone Number:

CHEMTREC (800) 424-9300

Product Use: Polyurethane isocyanate component

2. Hazards Identification:

GHS Ratings:

Inhalation Toxicity	Acute Tox. 4	Gases>2500+<=5000ppm, Vapors>10+<=20mg/l, Dusts&mists>1+<=5mg/l
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days
Respiratory sensitizer	1	Respiratory sensitizer
Skin sensitizer	1	Skin sensitizer

GHS Hazards

H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled

GHS Precautions

P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash hands thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P285	In case of inadequate ventilation wear respiratory protection
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P321	Specific treatment is urgent (see Section 4 First Aid measures)
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
P302+P352	IF ON SKIN: Wash with soap and water
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P332+P313
P333+P313
P337+P313
P342+P311
P501

If skin irritation occurs: Get medical advice/attention
If skin irritation or a rash occurs: Get medical advice/attention
Get medical advice/attention
Call a POISON CENTER or doctor/physician
Dispose of contents/container in accordance with Section 13

Signal Word: Danger



3. Composition/Data on Components:

Chemical Name	CAS number	Weight Concentration %
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane]	9042-82-4	80.00% - 90.00%
Cyclohexane, 1,1'-methylenebis[4-isocyanato-	5124-30-1	10.00% - 20.00%
Dibutyltin dilaurate	77-58-7	1.00% - 5.00%

4. First Aid Measures:

After Inhalation: May cause severe irritation to upper respiratory tract and lungs, respiratory sensitization, decreased lung capacity.

Remove from exposure area. Administer oxygen or artificial respiration as needed. Obtain medical attention.

After Eye Contact: Rinse opened eye for at least 15 minutes under running water.
Remove contact lenses if present and easy to do so, and continue rinsing.

After Skin Contact: Remove contaminated clothing. Clean affected area with soap and plenty of water. Call a physician if irritation develops.

After Swallowing: Do not induce vomiting. If conscious, give 1 to 2 cups of milk or water to drink. Consult a physician at once.

Notes to Physician: Treat symptomatically. Following severe exposure the patient should be kept under medical review for a least 48 hours.

5. Fire Fighting Measures:

Flash Point: 200 C (392 F)

LEL:

UEL:

Suitable Extinguishing Agents: Water spray, CO2, Foam, Dry chemical

Information about Protection against Explosions and Fires: Closed containers may rupture when exposed to extreme heat.

Dangerous Products of Decomposition: Oxides of carbon, oxides of nitrogen, and traces of HCN.

Protective Equipment: Firefighters should wear a pressure demand self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures:

Person-Related Safety Precautions: Evacuate all non-essential personnel. Avoid contact with skin. Do not breathe aerosols or vapors.

Measures for Environmental Protection: Cover and contain spill with absorbent material. Place in open container. Remove to well ventilated area and dilute with ammonia solution (water 90%, concentrated ammonia 8%, detergent 2%). Collect for proper disposal according to local, state, and federal regulations.

7. Handling and Storage:

Information for Safe Handling: Do not breathe fumes, vapors, or mists. Use only with adequate ventilation. Avoid contact with skin or eyes. Immediately report spills or leaks.

Storage Requirements: Store in dry, well ventilated area. Keep containers tightly closed. Store between 60°F-100°F.

8. Exposure Controls and Personal Protection:

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Poly[oxy(methyl-1,2-ethanediy)], .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] 9042-82-4	Not Established	Not Established	Not Established
Cyclohexane, 1,1'-methylenebis[4-isocyanato- 5124-30-1	0.01 ppm TWA	0.005 ppm TWA	NIOSH: 0.01 ppm Ceiling; 0.11 mg/m3 Ceiling
Dibutyltin dilaurate 77-58-7	Not Established	Not Established	Not Established

Engineering Controls: Use local exhaust ventilation to maintain airborne concentrations below the TLV, especially if heating or spraying. Use only in a well ventilated area to keep vapors below exposure limits. Use local exhaust ventilation if necessary.

General Protective and Hygienic Measures: Usual precautionary measures should be adhered to when handling chemicals.

Personal Protective Equipment:

Respiratory Protection: Do not inhale vapors. Use NIOSH approved respiratory protection if TLV/PEL is exceeded. Do not enter storage area unless it is adequately ventilated.

Hand Protection: Protective butyl rubber or nitrile rubber gloves.

Eye Protection: Chemical safety goggles.

Body Protection: Protective work clothing. Launder separately.

9. Physical and Chemical Properties:

Appearance: Clear liquid	Odor: Pungent
Vapor Pressure: N/A	Odor threshold: N/A
Vapor Density: N/A	pH: N/A
Specific Gravity: 1.06	Melting point: N/A
Freezing point: N/A	Solubility: N/A
Boiling range: N/A	Flash point: 392 F, 200 C
Evaporation rate: N/A	Flammability: N/A
Explosive Limits: N/A	Partition coefficient (n- octanol/water):
Autoignition temperature: N/A	Decomposition temperature: N/A

10. Stability and Reactivity:

Incompatible Materials: Avoid contact with water, amines, strong bases, and alcohols.

Hazardous Polymerization: Not expected to occur.

Dangerous Products of Decomposition: Oxides of carbon, oxides of nitrogen, hydrocarbons, isocyanates, and traces of HCN.

11. Toxicological Information:

Mixture Toxicity

Oral Toxicity LD50: 2,080mg/kg

Inhalation Toxicity LC50: 3mg/L

Component Toxicity

77-58-7

Dibutyltin dilaurate

Oral LD50: 45 mg/kg (Rat) Dermal LD50: 630 mg/kg (Rabbit)

Toxicity Values Listed if Known

Acute Health Effects:

Eyes: Severe irritation, tearing, swelling, and possible damage to cornea.

Skin: Irritation, redness, swelling, skin sensitization, rash, scaling, and blistering.

Inhalation: Mucous membrane and respiratory tract irritation, tightness of chest, isocyanate sensitization.

Ingestion: Irritating and corrosive to mouth, stomach, and digestive tract.

Chronic Health Effects: Isocyanates may cause skin and respiratory sensitivity in some individuals. Sensitized individuals may react to very low levels diisocyanates below the PEL. Sensitized people who continue to work with diisocyanates may develop symptoms sooner after each exposure.

Conditions Aggravated by Exposure: Asthma, respiratory disorders, skin allergies, eczema

Routes of Entry : Inhalation, ingestion, skin contact, eye contact

Target Organs: Respiratory tract, eyes, skin

Chemicals with Known or Possible Carcinogenic Effects:

CAS Number

Description

% Weight

Carcinogen Rating

12. Ecological Information:

General Information: Based on experience, no adverse effects are to be expected if correct disposal procedures have been followed. Individual component ecotoxicity listed if known.

Component Ecotoxicity

Cyclohexane, 1,1'-methylenebis[4-isocyanato- 96 Hr LC50 Brachydanio rerio: 1.2 mg/L [static]; 96 Hr LC50 Brachydanio rerio: 1.2 - 2.76 mg/L

13. Disposal Considerations:

Recommendation: Observe local requirements. Dispose of in accordance with local/state/federal regulations.

14. Transport Information:

DOT Regulated Components:

Dicyclohexylmethane-4,4'-Diisocyanate
Reportable Quantity: No minimum threshold

Material ships as follows:

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	Environmentally Hazardous Substance, N.O.S. (Contains Dicyclohexylmethane-4,4'-Diisocyanate)	3082	III	9
ICAO/IATA	Aviation Regulated Substance, N.O.S.(Contains Dicyclohexylmethane-4,4'-Diisocyanate)	3334	III	9

15. Regulatory Information:

OSHA HAZARD COMMUNICATION STANDARD: This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

SARA 311/312 Hazard Categories: Acute health hazard, chronic health hazard.

California Proposition 65

(Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute unless otherwise listed:

Massachusetts Right To Know List:

Cyclohexane, 1,1'-methylenebis[4-isocyanato- 5124-30-1 10 to 20 %

New Jersey Right To Know List:

Cyclohexane, 1,1'-methylenebis[4-isocyanato- 5124-30-1 10 to 20 %

Pennsylvania Right To Know List:

Cyclohexane, 1,1'-methylenebis[4-isocyanato- 5124-30-1 10 to 20 %

Chemicals subject to SARA 313 Reporting:

Cyclohexane, 1,1'-methylenebis[4-isocyanato- 5124-30-1 10 to 20 % Emissions

All Substances Listed on TSCA Inventory Unless Noted:

- None

16. Other Information:

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of MarChem Polyurethane Systems. The data on these sheets relates only to the specific material designated herein. MarChem Polyurethane Systems assumes no legal responsibility for use or reliance upon this data. It is the user's responsibility to ensure that their activities comply with federal, state, or local laws.

Date revised: 2015-05-15
Date Prepared: 11/11/2015

Reviewer Revision 1