

Material Safety Data Sheets

Alumilite Corporation
315 E. North St.
Kalamazoo, MI 49007
269 488-4000

Emergency Telephone: Chemtrec 1-800-424-9300

Section 1 – Product Information

Alumilite Clear “A” side

Common Chemical Name: Blend of Polyols

Synonyms: N/A

Chemical Family: Polyether Polyol

Molecular Weight: Not Established

Section 2 - Ingredients

Chemical:	CAS	Amount
Polyether Polyols	Proprietary	50-60%
High Molecular Weight Plasticizer	Proprietary	40-50%

These products are not considered to be hazardous according to OSHA Hazard Communication Standard and contain no chemical subject to Sara title III Section 313 supplier notification requirements.

All products are not listed as Carcinogen in NTP, IARC, or OSHA 1910(z)

Section 3- Hazardous Identification

Color:	Colorless
Form/Appearance:	Liquid
Odor:	Polyol
Odor Intensity:	Mild

Nature of Hazard

Emergency Overview: Contact with eyes and skin may cause irritation. Inhalation may result in irritation.

Eye Contact: May cause irritation.

Skin Contact: Frequent or prolonged contact may irritate and cause dermatitis. Occasional brief contact with the liquid will not result in significant irritation. Skin contact may aggravate an existing dermatitis condition.

Inhalation: May cause respiratory irritation.

Ingestion: May cause gastric disturbances.

Section 4 – First Aid

Eye: Flush with large amounts of clean water for 15 minutes. If irritation persists, get medical attention.

Skin: Wash with soap and water. Get medical attention if irritation develops or persists. Wash clothing before reuse.

Inhalation: Remove to fresh air. Aid in breathing if necessary. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.

Ingestion: If swallowed, dilute with water and immediately induce vomiting. Do not give fluids if unconscious or having convulsions. Get medical attention immediately.

Section 5 – Fire Fighting Measures

Extinguishing Media: Water spray, foam, carbon dioxide, or dry chemical
Fire Fighting Instructions: Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Use water spray to cool fire exposed surfaces and to protect personnel. Wear structural fire fighting gear.
Flash Point: > 260 F

Section 6 – Accidental Release Measures

General: Spills should be contained, solidified, and placed in suitable containers for disposal at a licensed facility.
Waste Disposal: Incinerate or bury in a licensed facility. Do not discharge into waterways or sewer systems without proper authority.

Section 7 – Handling and Storage

General: Avoid breathing mist or vapors and repeated or prolonged exposure with skin. Avoid eye contact. Do not drink.
Storage: Store and use in well ventilated area between 70-80F. Avoid excessive temperatures, low or high. Avoid moisture. Containers should be sealed tightly to prevent contamination from foreign materials.

Section 8 – Exposure Controls & Personal Protection

Clothing: Gloves, coveralls, apron, boots as necessary to prevent skin contact.
Eyes: Chemical goggles; also wear face shield if splashing hazard exists.
Respiration: Approved organic vapor mist respirator as necessary.
Ventilation: Use local exhaust to control vapors/mists.

Section 9 – Physical & Chemical Properties

Color: Colorless
Form: Liquid
Odor: Polyol
Odor Intensity: Mild
Specific Gravity: 1.01
Boiling Pt: Not Available
Freezing Pt: Not Available
Solubility: Partial

Section 10 – Stability & Reactivity

Stability: Stable
Conditions to Avoid: Exposure to moisture and temperatures above 130F
Incompatibility: Moisture, acids, and strong oxidizers

Section 11 – Toxicological Information

No applicable data for this section.

Section 12 – Ecological Information

No applicable data for this section.

Section 13 – Disposal Information

Waste Disposal: Dispose of in compliance with federal, state, or local environmental control regulations. Incinerate or bury in a licensed facility. Do not discharge into waterways or sewer systems without proper authority.
Container Disposal: Steel drums must be emptied (as defined by RCRA, Section 261.7 or state regulations that may be more stringent) and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer, or an approved landfill. Drums destined for a scrap dealer or landfill must be punctured or crushed to prevent reuse.

Section 14 - Transportation Information

Not regulated by the Department of Transportation

Section 15 - Regulatory Information

CERCLA: No
SARA Title III, Section 313: Not Listed
Section 311/312: N/A
Section 313: N/A
Hazardous Rating: Health 2 Fire 1 Reactivity 1

Section 16 - Other Information

No Data Available.

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To the best of our knowledge, the information contained herein is accurate. However Alumilite does not assume 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 handled with care. Although we have described herein all of the hazards to which we are currently aware, we cannot guarantee that these are the only hazards which exist. While the descriptions, designs, data, and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Further, you expressly understand and agree that the descriptions, designs, data, and information furnished by Alumilite hereunder are given gratis and Alumilite assumes no obligation or liability for the description, designs, data, and information given or results obtained, all such being given and accepted at your risk.

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Section 1 – Product Information

Alumilite Clear “B” side

Common Chemical Name: Aliphatic Diisocyanate Prepolymer

Synonyms: HMDI

Chemical Family: Aliphatic Isocyanate

Molecular Weight: N/A

Section 2 - Ingredients

Chemical:	CAS	Amount
Dicyclohexylmethane-4,4' Diisocyanate Prepolymer	Proprietary	<70%
1,6 Hexamethylene based Polyisocyanate	Proprietary	10%-20%

All products are not listed as Carcinogen in NTP, IARC, or OSHA 1910(z)

Section 3- Hazardous Identification

Color:	Translucent Clear
Form/Appearance:	Liquid
Odor:	Slightly Musty
Odor Intensity:	Mild

Nature of Hazard

Emergency Overview: May cause skin, eye, and respiratory tract irritation. Harmful if inhaled; May cause allergic respiratory reaction; May cause lung damage; toxic gases/fumes are given off during burning or thermal decomposition.

Eye Contact: May cause irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor may cause irritation with symptoms of burning and tearing.

Skin Contact: Can cause skin irritation and may cause allergic skin reaction. It is also a skin sensitizer. May cause irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove. Skin contact may aggravate an existing dermatitis condition.

Acute Inhalation: MDI vapors or mist at concentrations above the TLV can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing running nose, sore throat, coughing, chest discomfort, shortness of breath, and reduced lung function. Persons with preexisting, non specific bronchial hyperreactivity can respond to concentrations below the exposure limits with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the exposure limit may lead to bronchitis, bronchial spasm, and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

Chronic Inhalation: As a result of previous repeated overexposures or a single large dose, certain individuals can develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath, or asthma attack, could be immediate or delayed (up to several hours after exposure). Similar to many non-specific asthmatic responses, there are reports that once sensitized and individual can experience these symptoms upon exposure to dust, cold air, or other irritants. Sensitization can be temporary or permanent.

Ingestion: May cause irritation. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

Neither HMDI nor polymeric MDI are listed by the NTP, IARC or regulated by OSHA as carcinogens.

Section 4 – First Aid

Eye: Holding eyelids open, flush with large amounts of clean water for 15 minutes. If irritation persists, get medical attention.

Skin: Wash with soap and water. Get medical attention if irritation develops or persists. Wash clothing before reuse.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Asthmatic type symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening. Treatment is essentially symptomatic. Seek medical attention.

Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of this compound.

Notes to Physician: Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Workplace vapors have produced reversible cornea epithelial edema impairing vision. Skin: This compound is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn. Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of this compound. Respiratory: This compound is a known pulmonary sensitizer. Treatment is essentially symptomatic. An individual having a skin or pulmonary sensitization reaction to this material should be removed from exposure to any isocyanate.

Section 5 – Fire Fighting Measures

Extinguishing Media: Water spray, foam, carbon dioxide, or dry chemical

Fire Fighting Instructions: Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Use water spray to cool fire exposed surfaces and to protect personnel. Wear structural fire fighting gear. During a fire, MDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. At temperatures greater than 400 F polymeric MDI can polymerize and decompose which can cause pressure build-up in closed containers.

Flash Point: 392 F

Autoignition Temp: N/A

Section 6 – Accidental Release Measures

General: Spills should be contained, ventilated, solidified, and placed in suitable containers for disposal at a licensed facility.

Waste Disposal: Incinerate or bury in a licensed facility. Do not discharge into waterways or sewer systems without proper authority.

Section 7 – Handling and Storage

General: Avoid breathing mist or vapors and repeated or prolonged exposure with skin. Avoid eye contact. Do not drink.

Storage: Store and use in well ventilated area between 70-80F. Avoid excessive temperatures, low or high. Avoid moisture.

Section 8 – Exposure Controls & Personal Protection

Clothing: Prevent skin contact. Gloves, coveralls, apron, boots as necessary to prevent skin contact.

Eyes: Chemical goggles; also wear face shield if splashing hazard exists.

Respiration: Atomizing of product not recommended. Approved organic vapor mist respirator as necessary.

Ventilation: Use local exhaust to control vapors/mists.

Section 9 – Physical & Chemical Properties

Color: Clear liquid

Form: Liquid

Odor: Slightly musty odor

Odor Intensity: Mild

Specific Gravity: 1.05

Boiling Pt: Not Available
Freezing Pt: Not Available
Solubility: Partial

Section 10 – Stability & Reactivity

Stability: Stable
Conditions to Avoid: Contact with moisture and exposure to temperatures below 70F and above 350F
Incompatibility: Moisture, amines, strong bases, alcohols.
Hazardous Polymerization: Temperatures above 350 F and fire.

Section 11 – Toxicological Information

Acute Toxicity:
Oral: Greater than 11,000 mg/kg (rat)
Dermal: LD50: Greater than 10,000 mg/kg (rabbit)
Inhalation: 4 hour LC50 for polymeric MDI in rats 434 mg/m³, 510 mg/m³ 1 hour guinea pig.
Eye: Slight irritation (rabbit)
Skin: Slight to moderate irritation (rabbit) 24 hours
Sensitization: Has been shown to produce dermal sensitization in laboratory animals. Evidence of respiratory sensitization has also been observed in guinea pigs. In addition, there is some evidence suggestive of cross-sensitization between different types of diisocyanates.

Section 12 – Ecological Information

Ecological Data for Dicyclohexylmethane-4,4' Diisocyanate
Biodegradation
Aerobic, 0% Exposure time: 28 days
Theoretical Biological Oxygen Demand
2,195 mg/g
Acute and Prolonged Toxicity to Fish
LC50: 1.2 mg/l (zebra fish, 96 hours)
Acute Toxicity to Aquatic Invertebrates
EC0:>8.3mg/l (water flea, 48 hours)
Toxicity to Aquatic Plants
EC50:>5 mg/l, End Point: growth (green algae, 72 hours)
Toxicity to Microorganisms
EC50: 19mg/l, (activated sludge microorganisms, 3 hours)

Section 13 – Disposal Information

Waste Disposal: Dispose of in accordance with applicable federal, state, and local regulations. Incineration is the preferred method.
Container Disposal: Steel drums must be emptied (as defined by RCRA, Section 261.7 or state regulations that may be more stringent) and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer, or an approved landfill. If containers or drums are to be disposed, ensure all product residues are removed prior to disposal. Drums destined for a scrap dealer or landfill must be punctured or crushed to prevent reuse. Do not heat or cut empty containers with electric or gas torch. Gases may be highly toxic.

Section 14 - Transportation Information

Technical Shipping Name: Other regulated substances, liquid, n.o.s. (contains Dicyclohexylmethane-4,4'Diisocyanate)
Hazardous Class or Division: 9
UN/NA Number: NA 3080
Packing Group: III
Hazardous Substance: Dicyclohexylmethane-4,4' Diisocyanate
DOT Product RQ lbs: 11,111 lbs
Hazard label: Class 9
Hazard Placard: Class 9

****When in individual containers of less than the product RQ (793 gallons), this material ships as NON-REGULATED****

IMO / IMDG Code (Ocean)

Hazardous Class Division Number:

Non Regulated

ICAO / IATA (Air)

Hazardous Class Division Number:

Non Regulated

Section 15 - Regulatory Information

This product is hazardous under the criteria of the Federal OSHA Hazardous Communication Standard 29 CFR 1910.1200

CERCLA:

SARA Title III, Section 302:

Section 311/312:

Section 313:

Hazardous Rating: Health 3

Reportable Quantity: Over 5,000 lbs

Not Listed

Acute Heath Hazard. Chronic Heath Hazard

Dicyclohexylmethane-4,4' Diisocyanate

Fire 1 Reactivity 1

Section 16 - Other Information

No Data Available.

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