

MSDS.477 – AUS-V™ Aliphatic Urethane - Part B

Revised: 1.5.11

Material Safety Data Sheet
 (Date of Revision 1/5/11)

MSDS # 477 Part B

Product Name: AUS-V™ Aliphatic Urethane

Section: 1 – IDENTIFICATION

Product name: AUS-V™ Aliphatic Urethane - Part B

Product Type: Aliphatic Polyisocyanate

For Emergency Medical Assistance:

Call Health & Safety Information Services: (1-866-303-6949)

For Emergency Transportation Information:

CHEMTREC US DOMESTIC (800-424-9300)

CHEMTREC INTERNATIONAL (703-527-3887)

CANUTEC, CA DOMESTIC (613-996-6666)

Company

Elite Crete Systems

1061 transport Drive

Valparaiso, IN 46383

Section: 2 – HAZARDS IDENTIFICATION

HMIS Hazard Rating No. 2 (Moderate)

PRIMARY ROUTE OF ENTRY: Inhalation, dermal, eyes
 Effects Of Overexposure

- Inhalation:** Vapors can be irritating to nose and mucus membranes. Exposures may result in tightness or burning in chest, coughing, headaches and fatigue. Respiratory sensitivity may result in asthma-like symptoms and on subsequent exposure even below the TLV.
- Eyes:** Contact can cause severe irritation, redness, and tearing.
- Skin Contact:** Contact may cause moderate skin irritation. In some individuals exposure may result in allergic type symptoms causing rash, itching and hives.
- Skin Absorption:** No known information available.
- Ingestion:** Not expected to be relevant route of exposure.
- Chronic:** As a result of previous repeated exposures or a single large dose, certain individuals will develop isocyanate sensitization which will cause them to react to a later exposure of isocyanates below TLV. Symptoms would include: chest tightness, wheezing, cough, shortness of breath, or asthmatic attack immediately or after several hours after exposure. Chronic overexposure to isocyanates has also been reported to cause lung damage, including decrease in lung function, which may be permanent. Sensitization may be permanent or temporary.

Section: 3 – COMPOSITION / INFORMATION ON INGREDIENTS

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

	CAS NO	EXPOSURE LIMITS*			CONTENT
		TLV	STEL	PEL	
ALIPHATIC POLYISOCYANATE	28182-81-2	.5mg/m3	1.0 mg/m3	N/E	>99%
HEXAMETHYLENE DIISOCYANATE	822-06-0	.005ppm	N/E	N/E	<=0.25%

Section: 4 – FIRST AID MEASURES

- INHALATION:** Remove victim from exposure. If difficulty with breathing, administer oxygen. If breathing has stopped, administer artificial respiration. Seek medical attention.
- EYES:** Flush eyes with water for 15 minutes, lifting upper and lower lids occasionally. Seek medical attention.
- SKIN:** Immediately remove contaminated clothing. Wash thoroughly with soap and water for at least 15 minutes. If irritation occurs, get medical attention. Do not re-use clothing until thoroughly cleaned.
- INGESTION:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Seek medical attention.

Section: 5 – FIRE FIGHTING MEASURES

The information herein is general information to assist our customers in determining whether our products are suitable for their specific applications. Our products are intended for sale to commercial and industrial customers. We require that customers should inspect and test our products before use to satisfy themselves as to the content and suitability for the applications they intend to use our products for. **Nothing herein shall constitute any warranty expressed or implied, including any warranty of merchantability or fitness for a particular purpose,** nor is any protection from any law or patent to be inferred. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for incidental or consequential damages.

HMIS Hazard Rating No. 1 (Slight)

Flash Point: 385°F

Method: Tag C.C.

Auto-Ignition Temp.: Not Available

Limits of Flammability: LEL: Not Available UEL: Not Available

Extinguishing Media: Carbon dioxide, foam, dry chemical & water fog.

Special Fire & Unusual Hazards: At higher temperature vapors can cause pressure build up in sealed containers. Use water to cool containers exposed to fire. Self-contained respirator equipment and full protective clothing required when smoke or fumes are generated. During a fire HDI vapors and other irritating highly toxic gases may be generated by thermal decomposition or combustion.

Section: 6 – ACCIDENTAL RELEASE MEASURES

Action To Take For Spills/ Leaks: Ventilate area, eliminate all sources of ignition; This product is heavier than and insoluble in water. Wear appropriate protective gear, contain leak or spill, salvage, clean up residue with absorbent material. Wash down area using soap solution allow 10 minutes to react.

Waste Disposal Method: Handle disposal of waste material in manner which complies with local, state, province and federal regulation. Landfill if solidified, incineration or dispose at agency approved waste-disposal facilities.

Section: 7 – HANDLING AND STORAGE

HANDLING: Keep away from open flames and high temperatures.

STORAGE: Store in a well ventilated area.

Keep from freezing

Section: 8 – EXPOSURE CONTROLS & PERSONAL PROTECTION

Ventilation: Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid build up of heavy vapors.

Personal Protection Equipment: Do NOT wear contact lenses when working with this material. Use chemical goggles/safety glasses with side shields and Rubber/Latex gloves. Selection of specific items such as boots and apron will depend on operation. Wear respirator protection whenever airborne concentrations exceed TLV ceilings or TWA, use NIOSH/OSHA approved respirators equipped with an organic vapor cartridge for listed hazard.

Confined spaces, room, or tanks are areas where concern for TLV's is especially important. Reference OSHA regulation CFR 29 1910.134 for recommended respiratory protection.

Section: 9 – PHYSICAL & CHEMICAL PROPERTIES

Boiling Point (°C):	N/Av	Water/Oil Distribution Coefficient:	N/Av
Color	Translucent clear	Solubility in Water:	None, Reacts slowly with water liberating CO2 gas.
Freezing Point (°C):	N/Av	Specific Gravity:	1.13
Vapor Pressure mmHg @ 20° C	5.2x10-9	pH:	N/Av
Vapor Density	> Air	Evaporation Rate:	N/Av
Odor Threshold:	N/Av	Odor:	Aromatic
Appearance:	Clear viscous liquid		
N/Av = Not Available	N/Av = Not Applicable	Ca. = Approximate	

Section: 10 – STABILITY & REACTIVITY

HMIS Hazard Rating No. 1 (Slight)

Stability: Avoid contact with moisture reacts evolving CO₂. Avoid temperatures above recommended storage. Not sensitive to mechanical impact.

Incompatibility: Avoid strong oxidizing and reducing agents, strong acids and bases peroxides and amines. Not sensitive to mechanical impact.

Hazardous Decomposition Products: Oxides of carbon and nitrogen, traces of Hydrogen cyanide, oxides of nitrogen, and various hydrocarbons from incomplete combustion.

Hazardous Polymerization: Will not occur when handled per instructions.

Section: 11 – TOXICOLOGICAL INFORMATION

HMIS Hazard Rating No. 2 (Moderate)

PRIMARY ROUTE OF ENTRY: Inhalation, dermal, eyes, ingestion

Effects Of Overexposure

Inhalation:	Vapors can be irritating to nose and mucus membranes. Exposures may result tightness or burning in chest, coughing, headaches and fatigue. Respiratory sensitivity may results in asthma-like symptoms and on subsequent exposure even below the TLV.
LC(50) Inhal.	137-1150 mg/m3 were obtained in rats exposed to aerosols (4hour) exposure.
Eyes:	Contact can cause severe irritation, redness, tearing and blurred vision.
Skin Contact:	Contact may cause moderate skin irritation. In some individuals exposure may result in allergic type symptoms causing rash, itching and hives.
Skin Absorption:	No known information available.
Ingestion:	Intake can cause gastrointestinal irritation, nausea, vomiting, diarrhea and headache.
LD(50) Oral	28182-81-2 >10,000 mg/m3 (rabbits)
Chronic:	Product does not contain chemicals considered to be carcinogenic by NTP, IARC, or OSHA.

Section: 12 – ECOLOGICAL INFORMATION

Marine Pollutant: NL
 (NL = Not Listed; P = Moderate; PP = Severe; ND = Not Determined)

Section 13 – DISPOSAL CONSIDERATIONS

Product Disposal:	If this product becomes waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Place in an appropriate disposal facility in compliance with all federal, State and local regulations. Disposal is the responsibility of the generator.
Container Disposal:	Containers should be completely drained of all residual product prior to disposal.

Section: 14 – TRANSPORTATION INFORMATION

Shipping Name: Liquid, N.O.S. (contains Hexamethylene-1,6-Diisocyanate)
Packaging Group: III
Hazard Label: Class 9
UN/NA Number: NA 3082

Emergency Response Guide: 128

Section: 15 – REGULATORY INFORMATION

SARA TITLE III SECTION 311/312 (40CFR370):	Acute health Hazard
SARA TITLE III SECTION 313 (40CFR372):	No reportable components
SARA TITLE III Section 302 (40CFR355), appendix A	No Reportable components
US EPA CERCLA Status (40CFR302):	No Reportable components
TSCA Inventory Status:	No Reportable components
Canadian DSL Status:	Report included (all components listed)
Canadian WHMIS Classification:	D2B (eye, skin irritant; skin sensitizer)
OSHA/NTP/IARC Carcinogen Status:	Not listed
Chemicals known to the State of California to Cause Cancer or Reproductive Toxicity:	This product contains No Reportable components
New Jersey Right to know Chemical List:	Not Listed
Pennsylvania Right to Know Chemical list	Not Listed
Massachusetts right to know Chemical list	Not Listed
Additional components not found in Section:	No Reportable components
California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)	No Reportable components
HMIS	Health 2, Safety 1, Reactivity 0

Section: 16 – OTHER INFORMATION

Reference: Prepared in accordance with 29 CFR 1910.1200 Elite Crete Systems, R & D Lab