SAFETY DATA SHEET

InstaCote ML-1, Isocyanate , Part "A"

Section 1 – Product and company identification:

Product Name: ML-1, Isocyanate , Part "A"
Multiple Parts (Yes/No): Yes

Manufactured by:

INSTACOTE, INC.
160 C Lavoy Rd.
Erie, MI 48133
Phone (734) 847-5260 Fax (743) 847-9008
Emergency Phone (800) 359-2783

Validation date: January 1, 2013

Section 2– Hazard Identification:

Physical state: Liquid
Color: Clear-amber
Odor: Faint
OSAH/HCS status: This material is classified as hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200)
Emergency Overview: WARNING!
Primary Routes of Exposure: Skin Contact, Ingestion and Inhalation. Prolonged and repeated skin contact may cause irritation and burns. Sensitization is possible. Ingestion of product will cause irritation of the mouth, pharynx, esophagus and stomach. Breathing atomized vapors may cause headaches, nausea, and irritation of the nose, throat and lungs.
Carcinogenicity: Not listed by NTP or IARC. Not regulated by OSHA.

Hazard Info (US) **Health-2** **Fire-1** **Reactivity-1** **Special- None**
Scale 4 = extreme, 3 = high, 2 = moderate, 1 = insignificant

GENERAL INFORMATION: Read this entire SDS for a more thorough evaluation of the hazards.

Section 3– Composition/information on ingredients:

Name	CAS Number	Weight %
4,4'-diphenylmethane diisocyanate	101-68-8	26%
Polyol-MDI prepolymer	39420-98-9	30-50%
Mixed-isomer MDI	26447-40-5	16-30%

Section 4– First aid measures:

Eye Contact: Flush eyes with a large amount of water for at least 15 minutes. Consult a physician if irritation persists.

Skin Contact: Remove contaminated clothing. Wash area with soap and water. Wash clothing prior to re-use.

Ingestion: Have individual drink 1-2 glasses of milk or water to dilute. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical assistance.

Inhalation: Move individual to fresh air. Consult a Physician. If breathing becomes labored, administer O_2.

Section 5– Fire-fighting measures:

Flash Point: 110°C, (230°F)

Flammable Limits: Upper: Not Established Lower: Not Established

Combustion Products: Carbon oxides (CO, CO2), nitrogen oxides (NO, NO2, etc.) hydrocarbons and HCN.

Extinguishing Media: Dry chemical, foam, CO_2 and water fog. Do not spray water into hot material; use water fog to cool surrounding fire.

Special Fire Fighting Precautions:

Full face shield, self-contained breathing apparatus (SCBA) with full protective gear.

Special Remarks: Due to reaction with water producing CO2-gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Containers may burst if overheated.

Section 6– Accidental release measures:

Spills/Leaks: Ventilate area and eliminate all sources of ignition. Wear appropriate protective gear (see section 8), contain spill, salvage, and clean up residue with absorbent material.

Disposal Method: Dispose in accordance with federal, state and /or local regulations. Landfill if solid, incinerate at agency approved waste-disposal facility (see section 13).

Section 7– Handling and storage:

Handling: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Avoid breathing vapor or mist. Never reuse an empty container due to residual chemical content. Decontaminate container prior to disposal. Do not heat, torch cut, weld or otherwise apply extreme heat to the metal container. Residual chemical will decompose to produce harmful vapors.

Storage: Store between 16°C(60°F)--38°C(100°F). Shelf life under proper storage conditions is 6 months from date of receipt. Insure drum closure to be tight. Store product in a dry environment away from strong oxidizing agents. Protect product from extremes

in temperatures. Do not store in containers made of copper, copper alloy or galvanized surfaces.

Section 8– Exposure controls/personal protection:

Product name:	Exposure limits:
4,4'MDI (101-68-8)	TWA: 0.005 ppm 8 h
	CLV: 0.002 ppm

Consult local authorities for acceptable exposure limits.

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.

PPE: DO NOT WEAR CONTACT LENSES when working with this product. Wear chemical goggles/safety glasses with side shields and rubber/latex gloves. Selection of items such as boots and apron will depend on the experience of the operator. Respirators are not required with the use of this product alone. Refer to the MSDS of the related component for this product. Wear respirator protection whenever a mist is generated such as spray application. Spray application in confined spaces, closed rooms, or tanks are areas where mist generation will exceed TLV or TWA. Refer to OSHA CFR29 1910.134 for recommended respiratory protection.

Neutralization Procedures:

Use 0.2-0.5% liquid detergent mixed with 3-8% Ammonium hydroxide or 5-10% sodium carbonate in water. Use 10 parts of solution for one part of spill material. Allow 30 minutes to deactivate before placing spilled material into drums.
Do not mix with any other waste material.

Section 9 – Physical and chemical properties:

Appearance:	clear thick liquid
Color:	amber
Odor:	faint
Boiling Point:	738°F, decomposes
Flash point:	approx.. 97°C (>200°F)
Lower explosion limit:	N/A
Upper explosion limit:	N/A
pH:	N/A
Freezing point:	-58°C (-74°F)
Specific Gravity:	1.12 @ 20°C (68°F) V.O.C.: 0.0 lbs./gal.
Vapor Pressure:	0.001 mm Hg@ 130°F
Water Solubility:	0.2% by wt @ 68°F
Autoignition temp:	N/A
Viscosity, dynamic:	1300 cps@ 23°C (73.4°F)
Evaporation Rate:	NA
Bulk density:	9.5 lb/gal

Section 10 – Stability and reactivity:

Stability/Reactivity: Stable at room temperature. Reaction with water (moisture) produces CO2-gas. Exothermic reaction with material containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures.

Instability: Avoid high temperatures, avoid freezing

Materials to Avoid: Strong Acids or Strong Oxidizing Agents

Hazardous Polymerization:

May occur with contact with moisture at temperatures above 400°F and in the presence of alkalis, amines and metals.

Hazardous Decomposition Products:

Oxides of Carbon And Nitrogen, Ammonia and trace amount Hydrogen Cyanide.

Section 11 – Toxicological information:

Toxicology data:

Acute

Product/ingredient name	Test	Species	Result	Exposure
Polymeric MDI	LD50,oral	Rat	5000mg/kg	-
	LC50, aerosol	Rat	490mg/m^3	4hrs

Carcinogenicity: Rats have been exposed for two years to a respirable aerosol of polymeric MDI which resulted in chronic pulmonary irritation at high concentrations. Only at the top level (6 mg/m3), there was a significant incidence of a benign tumour of the lung (adenoma) and one malignant tumour (adenocarcinoma). There were no lung tumours at 1 mg/m3 and no effects at 0.2 mg/m3. Overall, the tumour incidence, both benign and malignant, and the number of animals with the tumours were not different from controls. The increased incidence of lung tumours is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung, which occurred throughout the study. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumor formation will occur.

Mutagenicity: No evidence of mutagenic potential

Section 12 – Ecological information:

Biodegradation: 0%, 28days, not readily biodegradable.

Product/ingredient name	Test	Species	Result	Exposure
4,4'- MDI	LC0	Fish	>1000mg/l	96hrs
	EC0	Daphnia	>1000mg/l	48hrs

Section 13 – Disposal consideration:

Disposal Method: Dispose in accordance with federal, state and /or local regulations. Landfill if solid, incinerate at agency approved waste-disposal facility.

Empty container precaution:

Never reuse an empty container due to residual chemical content. Decontaminate container prior to disposal. Do not heat, torch cut, weld or otherwise apply extreme heat to the metal container. Residual chemical will decompose to produce harmful vapors.

Section 14– Transportation information:

Regulatory Information	UN number	Proper shipping name	Class	PG	Additional information
DOT-Classification	NA3082	Other regulated Substances, liquid, N.O.S.	9	III	
IMDG-Classification	not-regulated				
IATA-Classification	not-regulated				

Section 15– Regulatory information:

OSHA Hazcom Standard Rating: Hazardous
Us. Toxic Substances Control Act: Listed on the TSCA Inventory

US. EPA CERCLA Hazardous Substances (40 CFR 302)
Components: diphenylmethane 4,4'-diisocyanate (CAS 101-68-8) has a 5000 lb. RQ (reportable quantity). Any spill or release above the RQ must be reported to the National Response Center (800-424-8802).

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

US. EPA emergency planning and community right-to-know act (EPCRA) SARA Title III sections; 302 Extremely hazardous Substance and 313 Toxic chemicals;
Components; diisocyanate compound (category code N120)

US. EPA Resources conservation and recovery act (40CFR 261)
Massachusetts, New Jersey, Pennsylvania right to know (see section 3)

Name	CAS Number	Weight %
4,4'-diphenylmethane diisocyanate	101-68-8	26%
Polyol-MDI prepolymer	39420-98-9	30-50%
Mixed-isomer MDI	26447-40-5	16-30%

California Prop. 65:
To best of our knowledge, this product does not contain any of the listed chemicals , which the state of California has found to cause cancer, birth defects or other reproductive harm.

Section 16– Other information:

The handling of MDI and/or polymeric MDI requires appropriate protective measures referred to in this MSDS. These products are therefore recommended only for use in industrial or trade (commercial) applications. They are not suitable for use in Do-it-yourself applications.

Contact person: Thomas J. Nachtman
Telephone: 734-847-5260
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This version replaces all previous versions.

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