



International Polyurethane Systems (IPS)

Material Safety Data Sheet Polyurea P2001/2: Part B

1. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Dinoflex Group LP
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(250) 832- 5142

EMERGENCY CONTACT NUMBER: Canutec
(613) 996-6666

PRODUCT NAME: Polyurea P2001/2 Part B Polyamine

MATERIAL CODE: 3200102

CHEMICAL FAMILY: Polyoxypropylenediamine (blend)

PRODUCT USE: Coating

FORMULA: $(C_3H_6O)_n C_6H_{12}N_2O$ & C11H18N2

2. INFORMATION ON HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	CAS #	% Range	LD/50	LC/50
Poly[oxy(methyl-1,2-ethanediyl)],alpha - (2-amino methylethyl) - omega - (2-aminomethylethoxy)	9046-10-0	~ 65 - 80	No Data	No Data
Diethyltoluenediamine (DETDA)	68479-98-1	~ 20 - 40	No Data	No Data

3. HAZARDS IDENTIFICATION

HAZARD SUMMARY (OSHA) :	Corrosive to eyes, corrosive to skin, corrosive to mucous membranes, lung toxin, toxic by ingestion
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ROUTES OF ENTRY: Inhalation, skin, eyes, ingestion

MEDICAL CONDITIONS AGGRAVATED: Respiratory diseases including asthma and bronchitis, Skin diseases

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM CLASSIFICATIONS

HAZARD RATINGS	HEALTH	FLAMMABILITY	REACTIVITY
WHMIS	3	1	0

4. FIRST AID MEASURES

INHALATION:	Remove individual to fresh air. Seek medical attention if breathing is difficult.
SKIN CONTACT:	Immediately flush skin with plenty of water for 15 minutes. If clothing comes in contact with the product, the clothing should be removed immediately and should be laundered before re-use. Call a physician.
EYES:	Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids apart. Call a physician immediately.
INGESTION:	Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

FLAMMABILITY SUMMARY (OSHA):	Product is not known to be flammable, combustible, pyrophoric or explosive. Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the flash point giving rise to a flash fire. Vapors are heavier than air and may travel to a source of ignition and flash back.
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FLASH POINT:	> 100 Deg. C. / > 212 Deg. F.
AUTOIGNITION TEMPERATURE:	No data
UPPER FLAMMABLE LIMIT, % IN AIR:	No data
LOWER FLAMMABLE LIMIT, % IN AIR:	No data
EXTINGUISHING MEDIA:	Use alcohol foam, carbon dioxide, dry chemical or water spray when fighting fires. Water or foam may cause frothing if liquid solvent or oil is burning but it still may be a useful extinguishing agent if carefully applied to the fire.
FIRE FIGHTING INSTRUCTIONS:	In case of fire, use normal fire fighting equipment including a NIOSH approved self-contained breathing apparatus (SCBA). Use water to cool containers. Container may explode in heat of fire. Empty container may still contain residual material that can ignite and/or result in explosion.
COMBUSTION PRODUCTS:	Oxides of nitrogen, carbon dioxide, carbon monoxide
SENSITIVITY TO IMPACT:	Not sensitive to mechanical impact.
SENSITIVITY TO STATIC CHARGE:	Not sensitive to static charge.

6. ACCIDENTAL RELEASE MEASURES

AIR RELEASE:	Vapors may be suppressed by the use of water fog. Contain all liquid for treatment or neutralization.
WATER RELEASE:	Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. Continue to handle as described in land spill.
LAND RELEASE:	Create a dike or trench to contain materials. Absorb spill with inert material (e.g. dry sand, earth or commercial absorbent) and place in a chemical waste container. Do not place spilled materials back into original containers. Dilute material with large amounts of water.
ADDITIONAL INFORMATION:	Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.
PERSONAL PROTECTION:	Additional protective clothing must be worn to prevent contact with this chemical. Items include but are not limited to boots, impervious gloves, hard hat, splash-proof goggles, chemically impermeable suit, and self-contained breathing apparatus.

7. HANDLING AND STORAGE

HANDLING PROCEDURES:	Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing (dust, vapor, mist, gas). Keep container closed when not in use. Use only with adequate ventilation.
STORAGE REQUIREMENTS:	Store in a cool, dry and well ventilated place. Isolate from incompatible materials. Store in a tightly closed container. Avoid contact with water, or moist air.
SHELF LIFE:	Six months
STORAGE TEMPERATURE:	Store at 18 - 30 °C for quality reasons

8. RECCOMENDED PERSONAL PROTECTION

RESPIRATORY PROTECTION:	If spraying or misting occurs use a NIOSH approved air purifying respirator with organic vapor cartridge and dust/mist filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.
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SKIN PROTECTION:	Wear impervious gloves, boots and apron to avoid skin contact. A full impervious suit is recommended if exposure is possible to a large portion of the body.
EYE PROTECTION:	Use chemical goggles and a face shield.
VENTILATION REQUIREMENTS:	Local exhaust ventilation or other engineering controls are necessary when handling or using this product.
ADDITIONAL REQUIREMENTS:	An eye wash and safety shower should be provided in the immediate work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	Clear/Amber
ODOR:	Ammonia
ODOR THRESHOLD:	No Data
SPECIFIC GRAVITY @ 22°C:	0.998
VAPOR DENSITY @ 22°C:	> 1.00
VAPOR PRESSURE:	No Data
EVAPORATION RATE:	No Data
BOILING POINT:	No Data
FREEZING POINT:	No Data
PH:	Approximately 11.5
OIL/WATER DISTRIBUTION:	No Data
SOLUBILITY IN WATER:	0.1 - 1.00 %

10. STABILITY AND REACTIVITY

STABILITY AND REACTIVITY SUMMARY:	Stable under normal conditions. Not sensitive to mechanical shock or to static discharge.
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HAZARDOUS POLYMERIZATION:	Will not occur
CONDITIONS TO AVOID:	Contact with water. High temperatures
CHEMICAL INCOMPATIBILITY:	Acids, strong oxidizing agents
DECOMPOSITION PRODUCTS:	Ammonia, carbon dioxide, carbon monoxide, oxides of nitrogen
DECOMPOSITION TEMPERATURE:	No data

11. TOXICOLOGICAL INFORMATION

REPRODUCTIVE TOXICITY:	Not known or reported to cause reproductive or developmental toxicity.
TERATOGENICITY:	Not known or reported to be teratogenic.
MUTAGENICITY:	Not known or reported to be mutagenic.
CARCINOGENICITY:	This chemical is not known or reported to be carcinogenic by IARC, OSHA, NTP, or EPA.
EMBRYOTOXICITY:	Not known or reported to be embryotoxic.

IMMEDIATE (ACUTE) HEALTH EFFECTS

INHALATION:	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to upper respiratory tract. High acute exposure may cause lung damage.
SKIN CONTACT:	Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling, and scab formation. Prolonged skin exposure may cause permanent damage.
EYES:	Severe irritation and/or burns can occur following exposure. Direct contact may cause impairment of vision and corneal damage. Rinsing of the eye should take place immediately.
INGESTION:	Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration or perforation.

PROLONGED (CHRONIC) HEALTH EFFECTS

INHALATION:	Prolonged or repeated exposure will cause more severe irritation and possibly lung damage.
SKIN CONTACT:	Prolonged or repeated exposure may cause extensive permanent skin damage. Effects secondary to tissue destruction may also occur upon prolonged or repeated exposure.
EYES:	The acute corrosiveness of this product makes chronic eye contact of significant amounts unlikely.
INGESTION:	There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure. The acute corrosiveness of this product makes chronic ingestion of significant amounts unlikely.

PRODUCT ANIMAL TOXICITY

ORAL LD50 VALUE:	480 mg/Kg (rat)
DERMAL LD50 VALUE:	2090 mg/Kg (rabbit)
INHALATION LC50 VALUE:	No data

12. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

WASTE CLASSIFICATION: If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261.

DISPOSAL METHODS: As a non-hazardous waste, it should be disposed of in accordance with local, state and federal regulations.

13. TRANSPORT INFORMATION

LAND (DOT): Corrosive, Liquid, Toxic, N.O.S. (Polyoxypropylenediamine) 8 UN2922 PGIII, 6.1

AIR (IATA/ICAO): Corrosive, Liquid, Toxic, N.O.S. (Polyoxypropylenediamine) 8 UN2922 PGIII, 6.1

WATER (IMO): Corrosive, Liquid, Toxic, N.O.S. (Polyoxypropylenediamine) 8 UN2922 PGIII, 6.1

HAZARD LABEL/PLACARD: (Primary) Corrosive 8
(Subsidiary) Toxic, Division 6.1

CANADIAN TRANSPORTATION OF DANGEROUS GOODS REGULATIONS

EMERGENCY RESPONSE GUIDE NUMBER: 154

PROPER SHIPPING NAME: Corrosive Liquids, Toxic, N.O.S. (Polyoxypropylene Diamine)

HAZARD CLASS: 8 (6.1)

IDENTIFICATION NUMBER: UN 2922

PACKING GROUP: III

LABEL REQUIRED: Corrosive (toxic)

14. REGULATORY INFORMATION

WHMIS INFORMATION: Class D, Division 1, Subdivision B: Toxic
Class E: Corrosive

UNITED STATES REGULATIONS:

TOXIC SUBSTANCES CONTROL ACT (TSCA): Product components are listed in TSCA Inventory of Existing Chemical Substances.
PESTICIDE ACCEPTANCE INDICATION (US EPA): Not applicable

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:

HAZARD CATEGORIES SECTIONS: 311/312 (40 CFR 370.2)
HEALTH HAZARD: Acute
PHYSICAL HAZARD: None

EMERGENCY PLANNING & COMMUNITY RIGHT TO KNOW

APPLICABLE SECTION: 40 CFR 355, App. A
EXTREMELY HAZARDOUS SUBSTANCE SECTION 302: Threshold planning quantity is not applicable
REPORTABLE QUANTITY (40 CFR 302.4): None Listed

SUPPLIER NOTIFICATION REQUIREMENTS:

APPLICABLE SECTION: 40 CFR 372.45
REPORTABLE COMPONENTS SECTION 313: No 313-listed chemicals in this product

15. OTHER INFORMATION

MSDS PREPERATION DATE: July, 1995
PREPARED BY: Don Campagnolo
MAJOR REFERENCES: ARCH Chemical, Albemarle, Huntsman Chemical.
MSDS REVISION DATE: December, 2010
REVISED BY: Marci Hyatt
SECTION(S) REVISED: Format

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