

P7094

MATERIAL SAFETY DATA SHEET
For Coatings, Resins and Related Materials

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SECTION I - PRODUCT IDENTIFICATION *MSDS# 205-01A*

Manufacturer: DEFT, INC. (CAGE CODE 33461) Information Phone: (949) 474-0400
17451 VON KARMAN AVENUE Emergency Phone: (800) 424-9300
CHEMTREC Phone: 800-424-9300
IRVINE CA
92614

Product Class: ALIPHATIC ISOCYANATE ! Hazard Ratings: Health - 4
Trade Name : CAT,MIL-PRF-85285C,37886, TY I ! none -> extreme Fire - 3
Product Code : 03W173CAT ! 0 ----> 4 Reactivity - 1
C.A.S. Number: NONE !

SECTION II - HAZARDOUS INGREDIENTS

| Ingredients | CAS # | Weight % | Exposure Limits | | VP mm HG |
|---|------------|----------|-----------------|----------|----------|
| | | | ACGIH/TLV | OSHA/PEL | |
| POLYMERIC HEXAMETHYLENE DIISOCYANATE | 28182-81-2 | 35. | N.E. | N.E. | 0 |
| HEXAMETHYLENE DIISOCYANATE (HDI) CAS NO. 822-06-0, free monomer content averages 0.10% based on resin solids at the time of manufacture. However, after 12 months storage, the free monomer content may rise to a maximum of 0.14%. The ACGIH has a TLV of 0.005 ppm TWA. | | | | | |
| POLYMERIC HEXAMETHYLENE DIISOCYANATE | 28182-81-2 | 40. | N.E. | N.E. | 0 |
| HEXAMETHYLENE DIISOCYANATE (HDI) CAS NO. 822-06-0, free monomer content average 0.10% based on resin solids at the time of manufacture. However, after 12 months storage, the free monomer content may rise to a maximum of 0.14% The ACGIH has a TLV of 0.005ppm TWA. | | | | | |
| C8&10 AROMATIC HYDROCARBON | 64742-95-6 | < 5. | N.E. | N.E. | 3 |
| Manufacturer recommends a PEL of 100 ppm. | | | | | |
| n-BUTYL ACETATE | 123-86-4 | < 5. | 150 ppm | 150 ppm | 13 |
| STEL = 200 ppm | | | | | |
| ETHYL 3-ETHOXYPROPIONATE | 763-69-9 | 20. | N.E. | N.E. | .7 |
| STEL = N.E. | | | | | |
| Manufacturer recommends a workplace exposure limit of 50 PPM-TWA; 100 PPM-STEL. | | | | | |

THE ABOVE LISTED INGREDIENTS ARE ON THE TSCA INVENTORY LIST, ALSO ANY UNLISTED INGREDIENTS.

N.E. = Not Established

SECTION III - PHYSICAL DATA

Boiling Range: 260 - 428 Deg. F Vapor Density: Heavier than Air.
Evap. Rate: 0.15 x n-Butyl Acetate Liquid Density: Heavier than Water.
Volatiles vol % 30.1 Wgt% 26.1 Wgt per gallon: 9.01 Pounds.
Spec. Gravity: 1.08163

Appearance: AMBER LIQUID WITH SOLVENT ODOR

V.O.C.: 281 G/L

SOLUBILITY IN WATER: Insoluble PH: Not applicable

AUTOIGNITION TEMPERATURE: No information found

DECOMPOSITION TEMPERATURE: No information found

CORROSION RATE: No information found

VISCOSITY: Thin liquid to heavy viscous material
-----SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: IB Flash Point: 76 F TCC LEL: 1.00% UEL: 7.60%

-EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG, WATER SPRAY

-SPECIAL FIREFIGHTING PROCEDURES:

Full fire fighting equipment with self-contained breathing apparatus and full protective clothing should be worn by fire fighters. Water may be used to cool closed containers to prevent pressure build-up, auto ignition or explosion. During a fire HDI vapors and other irritating vapors may be generated by combustion or thermal decomposition.

-UNUSUAL FIRE & EXPLOSION HAZARDS:

Keep containers tightly closed. Isolate from heat, sparks, electrical equipment and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent.

-----SECTION V - HEALTH HAZARD DATA

-PERMISSIBLE EXPOSURE LEVEL:

SEE SECTION II, HAZARDOUS INGREDIENTS.

-EFFECTS OF OVEREXPOSURE:

INHALATION: Irritation of the respiratory tract & acute nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma.

SKIN AND EYE CONTACT: SKIN: Isocyanates react with skin protein and moisture and can cause irritation. Symptoms may be swelling, redness, and rash.

EYES: Liquid, areosols, or vapors are irritating and may cause tearing, redness, and swelling accompanied by a stinging sensation.

SKIN ABSORPTION: Prolonged or repeated contact can cause moderate irritation, drying, and defatting of the skin which can cause the skin to crack.

INGESTION: Acute: Can result in irritation and possible corrosive action in the mouth, stomach tissue and digestive (cont.)

SECTION V - HEALTH HAZARD DATA (cont.)

-EFFECTS OF OVEREXPOSURE: (cont.)

tract. Vomiting may cause aspiration of the solvent, resulting in chemical pneumonitis.

HEALTH HAZARDS (ACUTE AND CHRONIC)

ACUTE: Vapors are irritating to eyes, nose, and throat.

Inhalation may cause headaches, difficult breathing and loss of consciousness.

CHRONIC: As a result of previous repeated overexposure or a single large dose, certain individuals will develop isocyanate sensitization which will cause them to react to a later exposure of isocyanate levels well below the TLV value of isocyanates.

PRIMARY ROUTE(S) OF ENTRY:

TOPICAL (SKIN CONTACT): Yes

INGESTION (GASTRO-INTESTINAL): No

INHALATION (LUNGS): Yes

CARCINOGENICITY:

NTP?: NO, IARC MONOGRAPHS?: NO, OSHA REGULATED?: NO

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Asthma and any other respiratory disorders. Skin allergies, eczema, and dermititis. Isocyanate sensitization.

-FIRST AID:

INHALATION: Move to an area free from risk of further exposure. Restore breathing. Asthmatic type symptoms may develop and may be immediate or delayed by several hours. Obtain medical attention.

SKIN: Remove contaminated clothing. Wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse.

EYES: Flush with clean lukewarm water (low pressure) for at least 15 minutes, occasionally lifting eyelids. Obtain medical attention.

INGESTION: Do not induce vomiting. Do not give anything to an unconscious person. Obtain medical attention.

SECTION VI - REACTIVITY DATA

STABILITY: [] Unstable [x] Stable

HAZARDOUS POLYMERIZATION: [] May occur [x] Will not occur

-INCOMPATIBILITY

Water, amines, strong bases, alcohols, metal compounds and surface active materials.

-CONDITIONS TO AVOID:

Contact with moisture, material which react with isocyanates and high temperatures.

-HAZARDOUS DECOMPOSITION PRODUCTS:

BY HIGH HEAT/TEMPERATURE: Carbon monoxide, carbon dioxide, and oxides of nitrogen, traces of HCN and HDI.

SECTION VII - SPILL OR LEAK PROCEDURES

-STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Evacuate all non-essential personnel. Remove all sources of ignition (flame, spark sources, hot surfaces). Ventilate area. Contain and remove with inert absorbent and non-sparking tools.

-WASTE DISPOSAL METHOD:

Waste must be disposed of in accordance with federal, state, and local environmental control regulations. Empty containers must be handled with care, due to product residue and flammable vapor. DO NOT incinerate closed containers.

ALSO SEE SECTION IV, V, VI, FOR OTHER PRECAUTIONS.

EPA HAZARDOUS WASTE NUMBER/CODE: D001, F003, F005

HAZARDOUS WASTE CHARACTERISTICS:

| | |
|---------------|-----|
| IGNITABILITY: | YES |
| CORROSIVITY: | NO |
| REACTIVITY: | YES |

SECTION VIII - SPECIAL PROTECTION INFORMATION:

-RESPIRATORY PROTECTION:

A respirator that is recommended or approved for use in an organic vapor environment (air purifying or fresh air supplied) is necessary. Observe OSHA regulations for respirator use. Ventilation should be provided to keep exposure levels below the OSHA permissible limits. An air supplied respirator is recommended. A vapor particulate respirator (TC23C NIOSH/MSHA) may be appropriate where air monitoring demonstrates vapor levels below ten times the applicable exposure limits.

-VENTILATION:

Exhaust ventilation sufficient to keep the airborne concentrations of solvent, HDI and polyisocyanates below their respective TLV's must be utilized. Remove all ignition sources (heat, sparks, flame, hot surfaces).

-PROTECTIVE GLOVES:

Protective gloves are recommended (cotton, neoprene, rubber, polyethylene) to prevent skin contact.

-EYE PROTECTION:

The use of safety eyewear is recommended, including splash guards or side shields, chemical goggles or face shields.

-OTHER PROTECTIVE EQUIPMENT:

The use of long sleeve and long leg clothing is recommended. Remove and wash contaminated clothing before reuse.

SECTION IX - SPECIAL PRECAUTIONS

-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Store in buildings designed to comply with OSHA 1910.106. Avoid storing near high temperatures, fire, open flames, and spark sources. Store in tightly closed containers. Store in well ventilated areas.

SECTION IX - SPECIAL PRECAUTIONS (cont.)

-OTHER PRECAUTIONS:

Keep containers tight and upright to prevent leakage. Prevent prolonged breathing of vapors or spray mists. Prolonged over-exposure may cause an allergic reaction. Avoid contact with skin and eyes. Do not take internally. Do not handle until the manufacturers safety precautions have been read and understood. Wash hands before eating, smoking, or using washroom. Smoke in smoking areas ONLY.

*** TRANSPORTATION INFORMATION ***

APPLICABLE REGULATIONS: 49 CFR (YES); IMCO (NO); IATA (NO)

MILITARY AIR (AFR 71-4) (NO)

PROPER SHIPPING NAME: Paint UN NUMBER: UN-1263

REPORTABLE QUANTITY: Not applicable

HAZARD CLASS: Flammable liquid 3

THIS MATERIAL WHEN PACKAGED IN CONTAINERS OF 1 LITER OR LESS QUALIFIES AS PAINT IN LIMITED QUANTITY OF CLASS 3.

REQUIRED LABELS: Flammable liquid

U.S. POSTAL REGULATIONS: Not allowed to send via US POSTAL SERVICE.

*** DISCLAIMER ***

Information contained herein is furnished without warranty of any kind. Employers should use the information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of the materials and for the safety and health of their employees.

ACTUAL VOC DETERMINED PER EPA REFERENCE METHOD 24.

SECTION X - REGULATORY INFORMATION

-SARA 313:

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right To Know Act of 1986 and of 40 CFR 372:

| CAS# | Chemical Name | Percent by Weight |
|-------|---------------|-------------------|
| ----- | ----- | ----- |
| | None | |

SECTION X - REGULATORY INFORMATION (cont.)

-PROP 65-CARCINOGENIC

WARNING: This product contains a chemical known to the state of California to cause cancer.

| | |
|-------|---------------|
| CAS# | Chemical Name |
| ----- | ----- |
| | None |

-PROP 65-TERATOGENIC

WARNING: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

| | |
|-------|---------------|
| CAS# | Chemical Name |
| ----- | ----- |
| | None |

-PROP 65-CARCINOGENIC & TERATOGENIC

WARNING: This product may contain a chemical known to the state of California to cause cancer or birth defects or other reproductive harm

| | |
|-------|---------------|
| CAS# | Chemical Name |
| ----- | ----- |
| | None |