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MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: LDA-M700-32

DESCRIPTION: Aromatic Isocyanate

MANUFACTURER: Carpenter Co.
5016 Monument Ave.
Richmond, Virginia 23230

FOR PRODUCT INFORMATION: (804) 233-0606

EMERGENCY TELEPHONE: (800) 424-9300 – CHEMTREC

PREPARATION DATE: July 10, 2008

PREPARED BY: I. H. Department

SECTION 2 – INFORMATION ON HAZARDOUS INGREDIENTS

Polymeric MDI	CAS# 9016-87-9	55-65%
4,4'-Diphenylmethane Diisocyanate (MDI)	CAS# 101-68-8	30-36%
MDI Mixed Isomers	CAS# 26447-40-5	1-10%

SECTION 3 – HAZARDS IDENTIFICATION

ACUTE EFFECTS:

Eye: Can cause irritation with symptoms of reddening, tearing, stinging, and swelling.

Skin: Can cause irritation with symptoms of reddening, itching and swelling.

Inhalation: Can irritate the mucous membranes in the respiratory tract causing runny nose, sore throat, coughing, chest discomfort, and shortness of breath.

Ingestion: May cause gastrointestinal discomfort, including abdominal pain, nausea, vomiting and diarrhea.

CHRONIC EFFECTS:

- Inhalation:** Repeated overexposure or a single large dose may cause sensitization (asthma or asthma-like symptoms) that may cause some individuals to react later to diisocyanate exposure at levels well below the TLV or PEL.
- Skin:** Prolonged contact can cause reddening, swelling, rash, and in some cases, skin sensitization.
- Eyes:** Prolonged vapor contact may cause conjunctivitis.

EXPOSURE GUIDELINES:

	OSHA PEL (ppm)	ACGIH TLV (ppm)
4,4'-Diphenylmethane Diisocyanate (MDI)	0.02 Ceiling	0.005 TWA

SECTION 4 – FIRST AID

- EYES:** Flush with plenty of water for at least 15 minutes. Seek medical attention.
- SKIN:** Remove contaminated clothing and shoes. Wash thoroughly with soap and water. Seek medical attention if irritation develops.
- INHALATION:** Remove victim to fresh air. Administer oxygen or artificial respiration as needed. Seek immediate medical attention.
- INGESTION:** **DO NOT INDUCE VOMITING.** If victim is conscious, wash out mouth with water. Seek medical attention.

SECTION 5 – FIRE AND EXPLOSION DATA

- FLASH POINT:** >200 °F (PMCC)
- LFL:** Not determined.
- UFL:** Not determined.

HAZARDOUS COMBUSTION MATERIALS: Oxides of carbon and nitrogen, and traces of HCN gas.

EXTINGUISHING MEDIA: Dry chemical, foam, carbon dioxide, water fog or fine spray. Do not use direct water spray.

SPECIAL FIREFIGHTING PROCEDURES: Responding personnel must wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

CONTAINMENT/CLEANUP: For large spills, evacuate non-essential personnel. Emergency personnel should have positive-pressure, supplied-air breathing apparatus as well as protective clothing, gloves, and boots. Stop leak and dam spill. Cover with absorbent and neutralize with decontaminant (90% water, 8% ammonia, 2% liquid detergent). Transfer into open-top drums and keep drum lid loose for about 24 hours. Decontaminate the spill area.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Keep containers tightly closed when not in use. Do not breath vapors or mists. Avoid contact with skin and eyes.

STORAGE: Store materials in a cool (70-110°F), dry place.

SECTION 8 – PERSONAL PROTECTION / EXPOSURE CONTROLS

RESPIRATORY PROTECTION: If TLV or PEL is exceeded, NIOSH-approved respiratory protection must be worn.

EYE PROTECTION: Chemical goggles.

SKIN PROTECTION: Butyl, nitrile, or latex rubber gloves.

ENGINEERING CONTROLS: Local ventilation as needed to maintain airborne concentrations below TLV or PEL.

ADDITIONAL PROTECTION: Eyewash station and safety shower.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/ODOR:	Dark brown liquid, slight musty odor.
SPECIFIC GRAVITY:	1.22-1.25 (H ₂ O=1)
VAPOR PRESSURE:	Not determined.
VAPOR DENSITY:	Not determined.
BOILING POINT (° F):	Not determined.
SOLUBILITY IN WATER:	Insoluble. Reacts slowly with water to liberate CO ₂ gas.

SECTION 10 – STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

CONDITIONS TO AVOID: Elevated temperatures.

INCOMPATIBILITY: Water, amines, strong bases, alcohols, copper alloys.

HAZARDOUS POLYMERIZATION: May occur at elevated temperatures.

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: (From data for 4,4'-MDI)

LD50 rat (oral) >2000 mg/kg
LD50 rabbit (dermal) >10,000 mg/kg
LC50 rat (inhalation) >2240 mg/m³, aerosol, 1 hr

CARCINOGENICITY: No components listed by IARC, NTP and/or OSHA.

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY: No data available.

BIODEGRADATION: No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with Federal, State/Provincial, and local regulations

SECTION 14 – TRANSPORT INFORMATION

U.S. DOT:

Single containers with less than 5,000 lbs of 4,4'-MDI are not regulated.

Single containers with 5,000 lbs or more of 4,4'-MDI are regulated as: Environmentally hazardous substance, liquid, n.o.s., 9, UN3082, III, RQ (Methylene diphenyl diisocyanate).

SECTION 15 – REGULATORY INFORMATION

USA REGULATIONS

TSCA: All components of this product are listed on the TSCA inventory.

CERCLA HAZARDOUS SUBSTANCE (40 CFR 302):

Methylene Diphenyl Diisocyanate (CAS# 101-68-8)
Reportable quantity: 5,000 lbs

SARA 311/312: Acute health hazard. Chronic health hazard.

SARA 313:

Diisocyanates (Category N120) 93%

STATE RIGHT-TO-KNOW: To the best of our knowledge, this product does not contain any of the listed chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. (California Health and Safety Code Section 25249.6).

SECTION 16 – OTHER INFORMATION

NPCA/HMIS RATINGS

Health:	2*
Flammability:	1
Reactivity:	1
Personal Protection:	-

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