MATERIAL SAFETY DATA SHEET

Denepox I-40 Part A

Rev. 10/12

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Denepox I-40 Component A Resin Side

W.R.Grace & Co.-Conn.
62 Whittemore Avenue
Cambridge, MA 02140

Grace Canada, Inc.
294 Clements Road West
Ajax, Ontario L1S 3C6

In Case of Emergency Call:

In USA: (617) 876-1400 In Canada: (905) 683-8561

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Color: clear yellow
Physical State: Liquid
Odor: Mild
Hazards of product:

WARNING! May cause allergic skin reaction. May cause eye irritation. May cause skin irritation.

POTENTIAL HEALTH EFFECTS

EYES: Irritating to eyes.

SKIN: Irritating to skin

Toxic to aquatic organisms, may cause long-term effects in the environment.

SECTION 3: HAZARDOUS INGREDIENTS

Name	CAS NO.	% wt/wt
Epoxy resin	25068-38-6	25-50
Epoxy resin	55492-52-2	10-25
1,6-Hexane Diol Diglycidyl Ether	16096-31-4	>50

SECTION 4: FIRST AID MEASURES

EYES:
Immediately flush eyes gently with water for at least 15 minutes, while holding open upper and lower lids. Immediately seek medical attention.

SKIN:
Remove contaminated clothing. Blot or brush the product away, prior to washing the exposed area with soap and water. Get medical attention if irritation develops.

INGESTION:
Immediately rinse mouth. Seek immediate medical attention

INHALATION:
Remove person to fresh air; seek medical assistance if necessary.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT :>100°C

EXTINGUISHING MEDIA: Water fog or fine spray. Dry chemical fire extinguishers. CO_2 fire extinguishers.

SPECIAL FIRE FIGHTING PROCEDURES: Keep people away. Firefighters should wear full protective clothing and self-contained breathing apparatus. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible.

HAZARDOUS DECOMPOSITION PRODUCTS:
During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Phenolics. Carbon monoxide. Carbon dioxide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:
Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to Section 7, Handling, for additional precautionary measures. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

CLEAN-UP PROCEDURES:

Contain spilled material if possible. Prevent material from entering sewage system or water courses. Absorb with materials such as: Sand. Polypropylene fiber products. Polyethylene fiber products. Remove residual with soap and hot water. Collect in suitable and properly labeled containers. Residual can be removed with solvent. Solvents are not recommended for clean-up unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed. Consult appropriate solvent Safety Data Sheet for handling information and exposure guidelines.

SECTION 7: HANDLING AND STORAGE

HANDLING:
Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Avoid contact with skin and clothing. Wash thoroughly after handling. Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Application of a direct flame to a container of liquid epoxy resin can also cause

explosion and/or fire. Do not eat, drink or smoke during handling.

STORAGE:
Store in original containers dry at 50°F- 100°F

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE/FACE PROTECTION: Use safety glasses with splash shields or goggles.

RESPIRATORY PROTECTION : No respiratory protection should be needed if normal ventilation is available. Wear respirator with organic vapor mask if ventilation is inadequate.

HAND PROTECTION : Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Nitrile. Neoprene. Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

SKIN PROTECTION : Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.
INGESTION: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear yellow liquid
ODOR: Mild
ODOR THRESHOLD: Not available
PHYSICAL STATE: Liquid
EVAPORATION RATE: Not applicable
FLAMMABILITY: Not applicable
UPPER FLAMMABILITY LIMITS: Not applicable
LOWER FLAMMABILITY LIMITS: Not applicable
VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
DECOMPOSITION TEMPERATURE: Not available

pH: Not determined
MELTING/ FREEZING PT: Not determined
FLASH POINT: >100°C
RELATIVE DENSITY: 1.10g/cm^3
SOLUBILITY (H_2O): Not soluble
PARTITION COEFFICIENT: Not available
AUTO-IGNITION TEMPERATURE: Not available
VISCOSITY: Not available

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal ambient conditions.

CONDITIONS TO AVOID (STABILITY):
Avoid temperatures above 300°C (572°F) Potentially violent decomposition can occur above 350°C (662°F) Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

INCOMPATIBILITY (MATERIAL TO AVOID):
Avoid contact with oxidizing materials. Avoid contact with: Alkalines, amines, alcohols.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water.

HAZARDOUS POLYMERIZATION: Will not occur by itself. Masses of more than one pound (0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Epoxy resin CAS# 55492-52-9
Oral: LD_{50}, Rat > 5,000 mg/kg

Epoxy Resin CAS# 25068-38-6
Dermal: LD_{50}, rat > 2000 mg/kg

1,6-hexane diol diglycidyl ether, CAS # 16096-31-4
Oral: LD_{50} 1400 mg/kg mouse
Oral: LD_{50} 2900 mg/kg rat
Inhalation: $LC_{50/4h}$ >100mg/L mouse

REPEATED DOSE TOXICITY
Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.

SECTION 12: ECOLOGICAL INFORMATION

PERSISTENCE AND DEGRADABILITY
Not soluble in water. Slightly biodegradable. Bio accumulation is possible. Classified as dangerous to the environment.

ECOTOXICITY
Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in most sensitive species tested). Toxicity to aquatic species occurs at concentrations above material's water solubility.

SECTION 13: DISPOSAL CONSIDERATIONS

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and

regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DENEEF CONSTRUCTION CHEMICALS HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SECTION 3.

SECTION 14: TRANSPORT INFORMATION

DOT
UN3082, Environmentally hazardous substances, Liquid, N.O.S. (Epoxy resin), 9, PGIII

IATA
UN3082, Environmentally hazardous substances, Liquid, N.O.S. (Epoxy resin), 9, PGIII

IMO
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Epoxy resin), 9, PGIII
EMS: F-A, S-F
Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION

US. Toxic Substances Control Act
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30
CEPA - Domestic Substances List (DSL)
All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

Reaction product: Bisphenol A-(epichlorohydrin); epoxy resin (number average molecular weight <= 700) can also be described by the CAS# 025068-38-6.
Hazard Rating System

HMIS	Health	Fire	Physical Hazard
	2	1	2