



MATERIAL SAFETY DATA SHEET

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PENMUL™ R490

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Date Prepared: July 2, 2007

MSDS No.: 4360-707A

SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME: PENMUL R490

GENERAL USE: Cleaning, degreasing, and carbon removal

PRODUCT DESCRIPTION: Solvent emulsion

GENERIC INGREDIENTS: Aromatic hydrocarbons, surfactants, water, alkanolamine

EMERGENCY TELEPHONE NUMBERS: PENETONE 201-567-3000

CHEMTREC 800-424-9300

SECTION 2 HAZARDOUS INGREDIENT SECTION

This product is hazardous as defined in 29 CFR 1910.1200.

OSHA HAZARD: CORROSIVE, COMBUSTIBLE

OSHA HAZARDOUS INGREDIENTS

	CAS#	EXPOSURE LIMITS 8 hrs. TWA (ppm)		Supplier
		OSHA PEL	ACGIH TLV	
Aromatic hydrocarbons	64741-67-9	not established	not established	100
Ethanolamine	141-43-5	3	3	---

SECTION 3 HEALTH INFORMATION & PROTECTION

EMERGENCY OVERVIEW:

Clear brown liquid with petroleum hydrocarbon odor.

Combustible. Can be corrosive to eye, skin, and respiratory tract.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT:

May cause irritation or burns to eyes on prolonged contact. High vapor concentrations may be irritating.

SKIN CONTACT:

Frequent or prolonged contact may irritate or dry the skin, cause dermatitis, or cause burns. Skin contact may aggravate an existing dermatitis condition.

INHALATION:

High vapor/aerosol concentrations are irritating or may cause burns to the respiratory tract and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects.

INGESTION:

Small amounts of this liquid may be drawn into the lungs by either swallowing or vomiting. This may cause severe and delayed health effects such as inflammation of the lungs and infection of the bronchi. Ingestion may cause irritation of or burns to the digestive tract.

CHRONIC:

Ingestion of large amounts of ethanolamine has caused kidney and liver damage in lab animals.

FIRST AID MEASURES:**EYE CONTACT:**

Flush eyes with large amounts of water. See physician immediately.

SKIN CONTACT:

Flush skin with large amounts of water. Use soap if available. Remove contaminated clothing and launder before reuse. If skin irritation develops or persists, consult physician.

INHALATION:

Remove person to fresh air. Administer oxygen or artificial respiration as needed. Call a physician immediately.

INGESTION:

If swallowed, give plenty of milk or water. **DO NOT INDUCE VOMITING.** Use a stomach pump. Call a physician immediately.

WORKPLACE EXPOSURE CONTROLS:**PERSONAL PROTECTION:**

Splash proof goggles are recommended for all workplace conditions. Solvent resistant gloves should be used. Other protective gear, including splash proof goggles or face shield, rubber boots, aprons, gauntlets, or rain gear should be worn depending on how the product is used.

VENTILATION:

None needed under normal use conditions. For enclosed areas, or where large amounts of the product are being used, the use of fans or other mechanical ventilation is recommended. An organic vapor mask should be used if the TLV is exceeded and a particle mask if the product is sprayed. **DO NOT MIST THIS PRODUCT.** Use coarse spray only.

SECTION 4 FIRE & EXPLOSION HAZARDS

FLASH POINT: 189°F TCC, 210°C COC

FLAMMABLE LIMITS: not determined

AUTOIGNITION TEMPERATURE: not determined

GENERAL HAZARD:

Combustible liquid. Can form combustible mixtures at or above the flash point.
Containers can rupture and explode under fire conditions due to pressure and vapor buildup.

FIRE FIGHTING:

Either allow fire to burn out under controlled conditions or extinguish with water, foam, or dry chemical.
Cool exposed containers with water spray.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, fumes, and oxides of carbon and nitrogen.

SECTION 5 SPILL CONTROL MEASURES

LAND SPILL:

Eliminate sources of ignition. For small spills, use absorbent material such as towels or absorbent powders. Put all material into proper waste disposal container with lid tightly covered. **Solvent soaked materials may spontaneously combust.** For larger spills, dike spill, recover free liquid, and use absorbent material to dry area. Rinse area with water. Put all material into appropriate waste containers.

WATER SPILL:

Remove product from water surface by skimming or with suitable absorbents. This product contains surfactants which will cause it to disperse in water. Localized high concentrations of this product may cause fish kills, but no persistent or long term effects will result. Check with local environmental regulatory agencies for reporting requirements.

SECTION 6 HANDLING & STORAGE

STORAGE TEMPERATURE, °F: ambient. DO NOT STORE ABOVE 120 Deg. F. KEEP FROM FREEZING.

GENERAL: Keep away from heat sources, open flames, and other ignition sources. Do not store near strong oxidants.

SECTION 7 TYPICAL PHYSICAL & CHEMICAL PROPERTIES

BOILING POINT, °F:

initial about 212 (water)

EVAPORATION RATE, Acetone = 1:

less than 0.05

SOLUBILITY IN WATER:

emulsifies

SPECIFIC GRAVITY at 75°F:

0.985

ODOR AND APPEARANCE:

clear brown liquid with petroleum hydrocarbon odor

VAPOR PRESSURE, mm Hg at 20°C:

about 2

VAPOR DENSITY (Air = 1):

greater than 1

WT% ORGANIC VOLATILES:

about 65

pH:

11.5

SECTION 8 REACTIVITY DATA

GENERAL:

This product is stable and hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Strong oxidizing agents.

SECTION 9 REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT):

PROPER SHIPPING NAME:

CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(contains ethanolamine)

HAZARD CLASS: 8

IDENTIFICATION NUMBER: UN 3267

PACKING GROUP: III

LABEL: CORROSIVE

FLASH POINT: 189°F TCC

pH: 11.5

TSCA: The ingredients in this product are listed on the TSCA inventory.

CERCLA:

This product contains no reportable CERCLA materials. Contact local authorities to determine if there may be other local reporting requirements.

RCRA HAZARD CLASS:

D002 Corrosive hazardous waste

SARA TITLE III:**311/312 HAZARD CATEGORIES:**

Acute health, Fire

313 REPORTABLE INGREDIENTS:

Diethylene glycol monobutyl ether CAS# 112-34-5 5-15 wt%

NEW JERSEY RIGHT-TO-KNOW INFORMATION:

This product contains aromatic hydrocarbons (CAS# 64741-67-9), water (CAS# 7732-18-5), ethanolamine (CAS# 141-43-5), monoethanolammonium fatty acid soap (CAS# 26836-07-7), and diethylene glycol monobutyl ether (CAS# 112-34-5).

CALIFORNIA PROPOSITION 65 INFORMATION:

This product does not contain any chemicals recognized by the state of California to cause cancer and/or birth defects or reproductive harm.

SCAQMD INFORMATION:Is there a photochemically reactive material present? Yes
What is the % by volume of photochemically reactive material? about 40
What is the VOC content? about 640 g/l
What is the vapor pressure of VOC's? less than 5 mm Hg @ 20°C

SECTION 10 NOTES

HAZARD RATING SYSTEMS:

	HMIS	NFPA	KEY
HEALTH	2	2	4 = Severe
FLAMMABILITY	2	2	3 = Serious
REACTIVITY	0	0	2 = Moderate
			1 = Slight
			0 = Minimal

REVISION SUMMARY:

Change in Section 9

SUPERSEDES ISSUE DATE:

February 24, 2004

FOR ADDITIONAL PRODUCT INFORMATION, CONTACT YOUR SALES ENGINEER
FOR ADDITIONAL HEALTH/SAFETY INFORMATION, CALL 201-567-3000

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