



PENMUL™ R490

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Date Prepared: March 15, 2015
MSDS No.: 4360

SECTION 1: IDENTIFICATION

Product name: PENMUL R490

Recommended use: Cleaning, degreasing, and carbon removal

Physical Description: Clear amber liquid with mild solvent odor

Generic Ingredients: Aromatic hydrocarbons, water, surfactants, glycol ether, alkanolamine

Manufacturer:

Penetone Corporation
700 Gotham Parkway
Carlstadt, NJ 07072
800-631-1652 or 201-567-3000

Business Contact:

Customer Service
800-631-1652 x2602 or 2272
Product Safety
800-631-1652 x2211 or 2257

Emergency Phone Numbers: **PENETONE 201-567-3000 CHEMTREC 800-424-9300**

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

<p>Health: Skin corrosion: 1C Eye damage: 1 Specific target organ toxicity - single exposure: 3</p>	<p>Aspiration hazard: 1</p> <p>Physical: Flammable liquid: 4</p>
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DANGER!

Causes Severe Skin Burns and Eye Damage.
May Be Fatal If Swallowed and Enters Airways.
May Cause Drowsiness or Dizziness.
Combustible Liquid.



<p>Precautionary Statements:</p>	
<p><u>Prevention:</u> Avoid breathing fumes or vapors. Do not breath mists if inhalable mists occur during use. Use only outdoors or in a well-ventilated area. Wear protective gloves, eye protection, and face protection. Wash hands and exposed skin thoroughly after handling. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.</p> <p><u>Response:</u> <i>In case of fire:</i> Use dry chemical, carbon dioxide, water spray, water fog, or foam. Do not use solid water stream as this may spread the fire. <i>If in eyes:</i> Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center, doctor, emergency room, or 911. <i>If on skin (or hair):</i> Take off immediately all contaminated clothing. Rinse skin with water or</p>	<p>shower. A mild soap may be used. Wash contaminated clothing before reuse. <i>If inhaled:</i> Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center, doctor, emergency room or 911 if you feel unwell. <i>If swallowed:</i> Rinse mouth. Do NOT induce vomiting. Immediately call a poison center, doctor, emergency room, or 911.</p> <p><u>Storage:</u> Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.</p> <p><u>Disposal:</u> Dispose of contents/container in accordance with local, regional, and national regulations (see Sections 13 and 15 of SDS for disposal and reporting requirements).</p>



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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Concentration Wt% (1)
Aromatic petroleum naphtha	64741-67-9	30-50
Water	7732-18-5	10-20
Monoethanolammonium fatty acid soap	26836-07-7	10-20
Diethylene glycol butyl ether	112-34-5	5-15
Ethoxylated nonylphenol	127087-87-0	1-10
Monoethanolamine	141-43-5	1-10

(1) Exact percentages being withheld under trade secret provision of OSHA HCS 1910.1200(i)

SECTION 4: FIRST-AID MEASURES

General Description of Symptoms & First-Aid Measures

Most likely work-place exposure routes will be *skin contact* or *inhalation*.

For *skin contact*, typically no immediate effects will be observed. Reddening, irritation, or a burning sensation could develop some time after exposure if product is not quickly washed off.

Inhalation exposure may produce varied effects depending on whether vapor or mist/spray is inhaled (see SECTION 8 for recommended workplace exposure limits). For vapor, typical symptoms would include headaches, dizziness, and drowsiness. In extreme cases, unconsciousness and other central nervous effects may occur. For mist/spray, typical symptoms could include coughing, sneezing, and a tingling or burning sensation in the nose, throat, and lungs.

Eyes

If in eyes: Rinse cautiously with water for several minutes. If contact lenses present, remove them if easy to do. Continue rinsing for several minutes. Immediately call a poison center, doctor, physician or other competent medical authority for medical advice. Penetone recommends that after any eye exposure and initial treatment a physician be seen immediately.

Ingestion

If swallowed: Rinse mouth. Immediately call a poison center, doctor, physician or other competent medical authority. Product presents an aspiration hazard. DO NOT INDUCE VOMITING.

Inhalation

If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center, doctor, physician or other competent medical authority for medical advice.

Skin

If on skin: Take off immediately all contaminated clothing. Rinse skin with water or shower. A mild soap may be used. Wash contaminated clothing before reuse. Immediately call a poison center, doctor, physician or other competent medical authority for medical advice. If skin irritation or rash occurs: Get medical advice or attention.

Special Treatment / Other

None

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties

Classification: 4

Flash Point: 189°F TCC, 210°F COC

Autoignition Temperature: not determined

Lower Flammable Limit: not determined **Upper Flammable Limit:** not determined



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Specific Hazards

Combustible liquid. Can form combustible mixtures at or above the flash point. Although the product is combustible, it is water based and water dilutable and will self extinguish with addition of water.

Extinguishing Media

Suitable: SMALL FIRE: Use dry chemical, carbon dioxide (CO₂), water spray or regular foam. LARGE FIRE: water spray, water fog, or foam.

Unsuitable: Do not use solid water stream as this may spread fire.

Protection & Precautions for Firefighters

Protective Equipment & Clothing: Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.

Fire Fighting Guidance: Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do it safely. Dike fire control water for later disposal; do not scatter material. Containers can expand and explode under fire conditions due to vapor buildup. Always stay away from containers engulfed in fire.

Hazardous Combustion Products: Smoke, fumes, and oxides of carbon and nitrogen when taken to dryness.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Land Spill

Eliminate sources of ignition. Do not touch or walk through spilled material. Stop leak if you can do it safely. For large spills, dike and pump into properly labeled containers for reclamation or disposal. For small spill, soak up with absorbent material and place in properly labeled containers for disposal.

Water Spill

Product forms emulsion with water which may make cleanup difficult. Avoid agitation to minimize emulsion formation. This product contains an organic base and has a pH >12 and will raise the pH of surface waters. Remove product from water surface by skimming or with suitable absorbents. Put into properly labeled containers for reclamation or disposal. If allowed by local environmental regulatory agencies, you may use a suitable dispersant. Check with local environmental regulatory agencies for reporting requirements.

See SECTION 8 for EXPOSURE CONTROLS and PERSONAL PROTECTION.

SECTION 7: HANDLING & STORAGE

Handling

Do not handle near heat, sparks, or flame. Avoid contact with oxidizing agents. Use only with adequate ventilation/personal protection (SEE section 8). Avoid contact with eyes, skin and clothing. After handling, always wash hands thoroughly with soap and water. Avoid personal contact with any residue. Dispose of empty containers with care. Empty containers can contain flammable residue and explosive vapors. **Do not cut, weld, or reuse empty container.**

Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Do not store near heat, sparks, open flame, or other ignition sources. Do not store near strong oxidizing agents. Do not store in direct sunlight. Avoid storing above 120°F (49°C).

SECTION 8: EXPOSURE CONTROLS and PERSONAL PROTECTION

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below



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recommended exposure limits.

Personal Protection

Inhalation A respiratory protection program that meets OSHA's 29 CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use. Use of an organic vapor mask or respirator is recommended.

Skin Wear chemical resistant gloves such as: rubber, nitrile, neoprene, or latex when skin contact is possible. Protective clothing including gloves, apron, sleeves, boots, head and face protection should be worn depending on how the product is used. PPE should be cleaned thoroughly after each use.

Eyes Penetone recommends always wearing safety glasses as a minimum in any workplace. Conditions may warrant the use of chemical goggles and possibly a face shield. Consult your standard operating procedure or safety professional for advice. Use protective eye and face devices that comply with ANSI Z87.1-1987.

Additional Remarks

Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use.

Occupational Exposure Limits

Component Name	Source	Value	Type	Notation
Aliphatic petroleum naphtha	ACGIH	1200 mg/m ³	TWA	Appendix H
	NIOSH	350 mg/m ³	TWA	
		1800 mg/m ³	C	
Monoethanolamine	OSHA Z1	500 ppm	TWA	15 minutes
	ACGIH	3 ppm	TLV	
		6 ppm	STEL	
Diethylene glycol butyl ether	OHSA	3 ppm	PEL	
	ACGIH	10 ppm (IFV)	TWA	

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

- Appearance:** clear amber liquid
- Odor:** mild solvent
- Odor Threshold:** not determined
- pH:** 11-12
- Melting Point / Freezing:** about 30°F
- Boiling Point / Boiling Point Range:** about 212°F
- Flash Point:** 160°F TCC, 185°F COC
- Evaporation Rate:** equal to water
- Flammability:** not applicable
- Lower Flammable Limit:** not determined
- Upper Flammable Limit:** not determined
- Explosive Properties:** not applicable
- Vapor Pressure:** equal to water
- Relative Vapor Density:** not determined
- Relative Density:** 0.985
- Solubility (Water):** forms emulsion (stable for one to 12 hours)
- Partition Coefficient (K_{ow}):** not determined
- Auto-ignition temperature:** not determined
- Decomposition temperature:** not determined



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Viscosity: 20 to 50 cp at room temperature

SECTION 10: STABILITY & REACTIVITY

Reactivity

Not reactive.

Chemical Stability

Stable.

Hazardous Reactions

None known.

Conditions to Avoid

Combustible liquid. Do not store near sources of heat, sparks, open flame, or other ignition sources.

Incompatible Materials

Strong oxidizing agents. Strong acids

Hazardous Decomposition Products

Smoke, fumes, and oxides of carbon and nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

Product Summary

Product is corrosive to skin, eyes, and other tissues, including oral and gastrointestinal. Mists can be corrosive to the eyes and respiratory tract. Ingestion may result in damage to the mouth, tongue, throat, and esophagus. Vapor concentrations above recommended exposure levels may cause headaches, dizziness, drowsiness, unconsciousness and other central nervous system effects.

Acute Toxicity:

Dermal: Rabbits, LD50 > 2,000 mg/kg (estimated using additivity formula)

Inhalation: no data available

Oral: Rats, LD50 > 2,000 mg/kg (estimated using additivity formula)

Skin Corrosion/Irritation

No data available. Based upon tests of a similar product, product is considered corrosive to the skin.

Serious Eye Damage/Irritation

No data available. Based upon tests of a similar product, product is considered corrosive to the eyes.

Sensitization - Respiratory or Skin

No data available. Based upon component data, product not expected to be a skin sensitizer.

Germ Cell Mutagenicity

No data available. Based upon component data, product not expected to exhibit germ cell mutagenicity.

Carcinogenicity

No material in this product is listed by IARC, NTP, or OSHA as a carcinogen.

Reproductive Toxicity

No data available.

Monoethanolamine and the nonionic surfactant used in this product have produced effects in the fetus only at levels that were toxic to the parent animals.



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Specific Target Organ Effects - Single Exposure

No data available

Specific Target Organ Effects - Repeated or Prolonged Exposure

No data available.

Monoethanolamine: kidney and liver effects were found in the kidney and liver of lab animals at high feeding levels over extended periods of time.

Aspiration Hazard

Based upon available data and comparison to similar materials, if swallowed, may pose a lung aspiration hazard during vomiting. Lung aspiration may result in chemical pneumonitis, pulmonary edema, and damage to lung tissue or death.

SECTION 12: ECOLOGICAL INFORMATION

Product Summary

Based upon product data and data for a very similar product, product can be considered harmful to aquatic organisms with LC50s generally in the range of 10-100 mg/l. (Acute aquatic toxicity category 3 by European Union classification).

Ecotoxicity

LC/EC/IC 10-100 mg/l (estimated using additivity formula)

Persistence and Degradability

Product components range in biodegradability from not readily to readily biodegradable.

Bioaccumulative Potential

No data available for the product. Aromatic solvent used in this product has the potential to bioaccumulate.

Mobility in soil

Product is a complex mixture. Components will partition into water and soil phases depending on inherent solubility of component in water.

Other Adverse Effects

None known

SECTION 13: DISPOSAL CONSIDERATIONS

Product is a D002 Corrosive Hazardous Waste under RCRA definitions. Dispose of contents/container in accordance with all applicable federal, state, and local regulations.

Note: Contaminated product, soil, water, container residues and spill cleanup materials may be hazardous wastes. Appropriate hazardous waste designation is the responsibility of the user.

SECTION 14: TRANSPORT INFORMATION

ID No.: UN3267
Proper Shipping Name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S., (contains ethanolamine)
Hazard Class: 8
Packing Group: III
Label: CORROSIVE
Marine Pollutant: Yes



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RQ: None
Special Precautions: None

SECTION 15: REGULATORY INFORMATION

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

RCRA HAZARD CLASS
 D002 - Corrosive hazardous waste

SARA 311/312 REPORTABLE HAZARD CATEGORIES: Immediate (Acute) Health Fire

REPORTING REQUIREMENTS (all quantities in pounds)

Component	CAS / 313 Code	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	CAA 112(r) TQ	CWA / OPA
Diethylene glycol butyl ether	N230 Glycol ethers			(1)	313		
(1) CERCLA hazardous substance with no assigned RQ							

NEW JERSEY RIGHT-TO-KNOW INFORMATION
 This product contains aromatic petroleum naphtha (CAS# 64741-67-9), water (7732-18-5), monoethanolammonium fatty acid soap (CAS# 26836-07-7), ethanolamine (CAS# 141-43-5), ethoxylated nonylphenol (CAS# 127087-87-0) and diethylene glycol butyl 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 16: OTHER INFORMATION

REVISION SUMMARY
 New GHS format

SUPERSEDES ISSUE DATE
 July 2, 2007

HAZARD RATING SYSTEMS:

	HMIS	NFPA
HEALTH	2	2
FLAMMABILITY	2	2
REACTIVITY	0	0
	B	

KEY
 4 = Severe
 3 = Serious
 2 = Moderate
 1 = Slight
 0 = Minimal

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

THE INFORMATION PRESENTED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED TO BE DEPENDABLE AND ACCURATE TO THE BEST OF



SAFETY DATA SHEET

Penetone® Corporation, 700 Gotham Parkway, Carlstadt, NJ 07072

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PENETONE'S KNOWLEDGE. THE INFORMATION RELATES TO THIS SPECIFIC MATERIAL. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY ONESELF AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR HIS OWN PARTICULAR USE.