



SAFETY DATA SHEET

Penetone® Corporation, 125 Kingsland Ave., Clifton, NJ 07014
CAGE 56883

PENAIR® HD 4 RTU

A MIL-PRF-87937D TYPE IV READY TO USE DILUTION

Page: 1 of 7

Date Prepared: November 11, 2019

MSDS No.: 232985

SECTION 1: IDENTIFICATION

Product name: PENAIR HD 4 RTU

Recommended use: Ready to use aircraft exterior cleaner

Physical Description: Clear water white to pale yellow/amber liquid with mild odor

Generic Ingredients: Water, surfactants, and glycol ether

Manufacturer:

Penetone Corporation
125 Kingsland Ave.
Clifton, NJ 07014
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:

Health: Skin irritation: 2 Eye irritation: 2A	Carcinogenicity: 2 Physical: Dissolved gas
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WARNING!

Causes Skin Irritation.
Causes Serious Eye Irritation.
Suspected of Causing Cancer.



Precautionary Statements:	
<p>Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, clothing, eye protection, and face protection. Wash hands and exposed skin thoroughly after handling.</p> <p>Response: <i>If exposed or concerned:</i> Get medical advice/attention. <i>If on skin:</i> Wash with plenty of water. If skin irritation</p>	<p><i>occurs:</i> Get medical advice/attention. Take off contaminated clothing and wash it before reuse. <i>If in eyes:</i> Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.</p> <p>Storage: Store locked up in a well-ventilated place. Protect from sunlight.</p> <p>Disposal: 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>

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Concentration Wt% (1)
Water	7732-18-5	75-90
Linear alcohol ethoxylate	68439-46-3	1-10
Dipropylene glycol monomethyl ether	34590-94-8	1-10
Coco diethanolamide	68603-42-9	<1

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



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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. A slight tingling sensation might be felt some time after exposure. Slight reddening or minor irritation could also develop if product is not quickly washed off.

Inhalation exposure may produce varied effects. Typical symptoms could include coughing, sneezing, and a tingling sensation in the nose, throat, and lungs.

Eyes

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists or develops: Get medical advice or attention. Penetone recommends that after any eye exposure a physician be seen immediately.

Ingestion

If swallowed: Rinse mouth. Call a poison center, doctor, physician or other competent medical authority if you feel unwell.

Inhalation

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center, doctor, physician or other competent medical authority if you feel unwell.

Skin

If on skin: Wash with plenty of water or a mild soap. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice or attention.

Special Treatment / Other

None

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties

Classification: Non-flammable

Flash Point: None-to-boil

Autoignition Temperature: Not determined

Lower Flammable Limit: Not applicable **Upper Flammable Limit:** Not applicable

Specific Hazards

Product is water based and presents no unusual fire hazards.

Extinguishing Media

Use extinguishing agents appropriate for controlling surrounding fire.

Unsuitable: None.

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.



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Hazardous Combustion Products: Liquid contents will produce smoke, fumes, and oxides of carbon and nitrogen when taken to dryness.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Land Spill

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

This is a water based product and will completely mix/dissolve in water making recovery difficult. Check with local environmental regulatory agencies for reporting requirements.

See SECTION 8 for EXPOSURE CONTROLS and PERSONAL PROTECTION.

SECTION 7: HANDLING & STORAGE

Handling

Avoid contact with eyes, skin and clothing. After handling, always wash hands thoroughly with soap and water. Avoid personal contact with any residue. Do not cut, weld, or reuse empty container.

Storage

Keep container tightly closed when not in use. Do not store near strong acids or bases. 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 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 a general purpose particulate mask or respirator with particulate filter 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

<u>Component Name</u>	<u>Source</u>	<u>Value</u>	<u>Type</u>	<u>Notation</u>
Dipropylene glycol methyl ether	ACGIH	100 ppm	TWA	Skin
		150 ppm	STEL	Skin



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NIOSH	100 ppm	TWA	Skin
	150 ppm	STEL	Skin
OSHA Z1	100 ppm	TWA	Skin

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

Appearance: clear water white to slightly hazy liquid

Odor: mild

Odor Threshold: not determined

pH: 8-9

Melting Point / Freezing: about 32°F

Boiling Point / Boiling Point Range: about 212°F

Flash Point: none to boil

Evaporation Rate: equal to water

Flammability: not applicable

Lower Flammable Limit: not applicable

Upper Flammable Limit: not applicable

Explosive Properties: not applicable

Vapor Pressure: equal to water

Relative Vapor Density: equal to water

Relative Density: 1.00

Solubility (Water): water soluble

Partition Coefficient (K_{ow}): not determined

Auto-ignition temperature: not determined

Decomposition temperature: not determined

Viscosity: <5 centipoise

SECTION 10: STABILITY & REACTIVITY

Reactivity

Product is not reactive, but if strong acids or bases are added, heat will be generated which could cause splattering.

Chemical Stability

Stable.

Hazardous Reactions

None.

Conditions to Avoid

Do not store near strong acids or bases. KEEP FROM FREEZING.

Incompatible Materials

Strong acids or bases.

Hazardous Decomposition Products

Liquid contents will produce smoke, fumes, and oxides of carbon and nitrogen when taken to dryness.



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SECTION 11: TOXICOLOGICAL INFORMATION

Product Summary

Based upon ingredient data, product is non-toxic by oral and dermal routes exposure. Based upon ingredient information, product is expected to cause skin irritation and to cause serious eye irritation.

Note: Values in this section refer only to the liquid.

Acute Toxicity:

Dermal: >10,000 mg/kg rabbit (estimated from additivity formula)

Inhalation: no data available

Oral: >10,000 mg/kg rat (estimated from additivity formula)

Skin Corrosion/Irritation

Causes skin irritation. Based upon component data.

Serious Eye Damage/Irritation

Causes serious eye irritation. Based upon component data.

Sensitization - Respiratory or Skin

Not expected to be a skin or respiratory sensitizer. Based upon component data.

Germ Cell Mutagenicity

Not expected to be mutagenic based upon partial component information and comparison to structurally similar compounds.

Carcinogenicity

Coco diethanolamide is listed by IARC as Group 2B: Possibly carcinogenic to humans.

Developmental/Reproductive Toxicity

No data available. Not expected to be a developmental or reproductive toxin based upon partial component information and comparison to structurally similar compounds.

Specific Target Organ Effects - Single Exposure

No data available.

Specific Target Organ Effects - Repeated or Prolonged Exposure

No data available.

For the linear alcohol ethoxylate surfactant used in this product, repeat dose 90 day oral sub-chronic NOAEL in male/female rats was >500 mg/kg/d and >400 mg/kg/d, while a 90 day dermal sub-chronic NOAEL was >125 mg/kg/d for male/female rats.

Aspiration Hazard

Based upon components, product not expected to be aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

Product Summary

Product is expected to be harmful to nonharmful to fish, aquatic invertebrates, algae, and microorganisms. (Acute aquatic toxicity category 3 or unclassified by European Union classification). Product is readily biodegradable.

Ecotoxicity

LC/EC/IC 50-150 mg/l (estimated using additivity formula).

In three separate range finding studies, 24 hr, 48 hr and 96 hr LC50s for fathead minnows and 24 hr and 48 hr LC50s for ceriodaphnia dubia were found to be 10-50 ppm for the concentrated product. Values for this dilution would be in the range of 40-200 ppm.



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Persistence and Degradability

Product components considered readily biodegradable. For the concentrated product:
In three separate 28 days studies (all by EPA 796.3100), degradability was determined to be: (1) 87.7% by DOC; (2) 89.3% DOC, 39.8% CO₂; (3) 90.0% by DOC, 40.3% by CO₂ evolution. Minimum inhibitory concentrations were reported to be less than 3.125% in all studies. Product as a whole should be considered readily biodegradable.

Bioaccumulative Potential

Product not considered bioaccumulative

Mobility in soil

No soil mobility data available.

Other Adverse Effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Product is a nonhazardous 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.: Not applicable, nonhazardous material
Proper Shipping Name: Not applicable
Hazard Class: Not applicable
Packing Group: Not applicable
Label: None
Marine Pollutant: No
RQ: None
Special Precautions: None

SECTION 15: REGULATORY INFORMATION

TSCA

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

RCRA HAZARD CLASS

Nonhazardous waste

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

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
no component is subject to reporting requirements							

NEW JERSEY RIGHT-TO-KNOW INFORMATION

This product contains Water (CAS# 7732-18-5), Alcohol ethoxylate (CAS# 68439-46-3), Dipropylene glycol methyl ether



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(CAS#34590-94-8) and coconut diethanolamide (CAS# 68603-42-9).

CALIFORNIA PROPOSITION 65 INFORMATION

This product contains a chemical recognized by the state of California to cause cancer: coco diethanolamide (CAS# 68603-42-9).

SCAQMD INFORMATION

Is there a photochemically reactive material present? No

What is the % by volume of photochemically reactive material? 0

What is the VOC content? 34 g/l

What is the vapor pressure of VOC's? Less than 0.1 mm Hg @ 20°C

SECTION 16: OTHER INFORMATION

REVISION SUMMARY

Change in Section 1

SUPERSEDES ISSUE DATE

April 25, 2016

HAZARD RATING SYSTEMS:

	HMIS	NFPA
HEALTH	1	1
FLAMMABILITY	0	0
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

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