

PENSOLV™ K4HP

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 Date Prepared: March 31, 2016
 MSDS No.: 4776

SECTION 1: IDENTIFICATION

Product name: PENSOLV K4HP

Recommended use: Degreaser

Physical Description: Clear liquid with sweet odor

Generic Ingredients: Aliphatic hydrocarbon, ketone

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 irritation: 2 Eye irritation: 2B Specific target organ toxicity - single exposure: 3 Specific target organ toxicity - repeat exposure: 2</p>	<p>Reproductive toxicity: 2 Aspiration hazard: 1 Physical: Flammable liquid: 2</p>
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DANGER!

Highly Flammable Liquid and Vapor.
 May Be Fatal If Swallowed and Enters Airways.
 Causes Eye and Skin Irritation.
 May Cause Drowsiness or Dizziness.
 May Cause Damage to Central and Peripheral Nervous Systems
 Through Prolonged or Repeated Exposure (Inhalation).
 Suspected of Damaging Fertility or the Unborn Child.



Precautionary Statements:	
<p><u>Prevention:</u> Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breath fumes/mists/vapors/spray. 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. Do not eat, drink or smoke when using this product. Keep container tightly closed. Keep away from heat/sparks/ open flames/hot surfaces. No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting, and mixing equipment. Use only non-sparking tools. Take precautionary measure against static discharge. <u>Response:</u> <i>In case of fire:</i> Use dry chemical, carbon dioxide, water spray, water fog, or alcohol resistant foam. Do not use solid water stream as this may spread the fire.</p>	<p><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. <i>If on skin (or hair):</i> Take off immediately all contaminated clothing. Rinse skin with water or shower. A mild soap may be used. If skin irritation or rash occurs: Get medical advice/ attention. <i>If inhaled:</i> Remove person to fresh air and keep comfortable for breathing. Call a poison center, doctor, emergency room or 911 if you feel unwell. <i>If swallowed:</i> Immediately call a poison center, doctor, emergency room, or 911. Do NOT induce vomiting. <i>If exposed or concerned:</i> Get medical advice/attention. <u>Storage:</u> Store locked up. Store in a well-ventilated place. Keep cool. Keep container tightly closed. <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)
Solvent naphtha, light aliphatic	64742-89-8	30-50
contains heptane	142-82-5	7-15
Methyl propyl ketone	107-87-9	40-60

(1) Exact percentages being withheld under trade secret provision of OHSA 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. Slight reddening or minor irritation could develop some time after exposure if product is not quickly washed off.

Inhalation exposure may produce varied effects, particularly if exposure occurs above the recommended workplace exposure limits (see SECTION 8). Typical symptoms would include headaches, dizziness, drowsiness and impairment or loss of motor function. In extreme cases, unconsciousness and other central nervous effects may occur.

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

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 (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. A mild soap may be used to wash skin. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice or attention.

Special Treatment / Other

None

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties

Classification: 2

Flash Point: 40°F (5°C) TCC

Autoignition Temperature: not determined

Lower Flammable Limit: 1% Upper Flammable Limit: 8%

Specific Hazards

Highly flammable liquid and vapor. Can form flammable mixtures at or above the flash point.



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Extinguishing Media

Suitable: SMALL FIRE: Use dry chemical, carbon dioxide (CO₂), water spray or alcohol resistant foam. LARGE FIRE: water spray, water fog, or alcohol resistant 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: Mist/spray can burn at temperatures below flash point. 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.

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 consists of hydrocarbons, is lighter than water. Product will float. 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.**

Methyl propyl ketone can form peroxides. Minimize exposure to air. After opening, purge with nitrogen before closing. Periodically test for peroxide formation on long term storage. Do not allow to evaporate to near dryness. Do not distill to dryness. Addition of water or appropriate reducing material will lessen peroxide formation.

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).

Ensure container and all receiving vessels and transfer lines are properly grounded.



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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 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

<u>Component Name</u>	<u>Source</u>	<u>Value</u>	<u>Type</u>	<u>Notation</u>	
Solvent naphtha, light aliphatic	ACGIH	1200 mg/m ³	TWA	Appendix H	
	NIOSH	350 mg/m ³	TWA		
	OSHA Z1		1800 mg/m ³	C	15 minutes
			500 ppm	PEL	
Heptane	ACGIH	400 ppm	TWA	CNS impair; URT irr	
	ACGIH	500 ppm	STEL		
	NIOSH	85 ppm	TWA		
	OSHA Z1		440 ppm	STEL	15 min
			500 ppm	PEL	
Methyl propyl ketone	ACGIH	150 ppm	STEL	pulm func; eye irr	
	NIOSH	150 ppm	TWA		
	OSHA Z1		200 ppm		PEL
			700 mg/m ³		

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

- Appearance:** clear water-white liquid
- Odor:** sweet
- Odor Threshold:** not determined
- pH:** not applicable
- Melting Point / Freezing:** less than 0°F (-18°C)
- Boiling Point / Boiling Point Range:** about 215°F (108°C)
- Flash Point:** 40°F (5°C) TCC
- Evaporation Rate:** 3.2 (n-butyl acetate = 1)



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Flammability: not applicable
Lower Flammable Limit: 1%
Upper Flammable Limit: 8%
Explosive Properties: not applicable
Vapor Pressure: about 30 mm Hg at room temperature
Relative Vapor Density: about 4
Relative Density: 0.78
Solubility (Water): partially soluble
Partition Coefficient (log K_{ow}): not determined
Auto-ignition temperature: not determined
Decomposition temperature: not determined
Viscosity: less than 5 centipoise at room temperature

SECTION 10: STABILITY & REACTIVITY

Reactivity

Product is stable and only reactive under extreme conditions (very high heat/pressure) or in the presence of specific incompatible materials (see below).

Chemical Stability

Product is stable.

Hazardous Reactions

Hazardous polymerization will not occur. Methyl propyl ketone may form peroxides of unknown stability. Product should be stored under an inert atmosphere such as nitrogen.

Conditions to Avoid

Highly flammable liquid. Do not store near sources of heat, sparks, open flame, or other ignition sources. Ground all storage and receiving container and transfer lines.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide and dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

Product Summary

Product as a whole has not been tested. Based on supplier information, the product as a whole would be considered of low toxicity for all routes of entry. Product is expected to be only slightly irritating to skin and possibly mildly irritating to eyes. Product will defat the skin, and prolonged/repeated contact could lead to dermatitis. If ingested, the product does present an aspiration hazard. Vapors/mists may irritate the upper respiratory tract and lungs and depress the central nervous system, causing drowsiness or dizziness. Repeated exposure may affect the peripheral nervous system causing loss of coordination.

Acute Toxicity:

- Dermal:** LD50 > 2,000 mg/kg rabbit (estimated using additivity formula)
- Inhalation:** LC50 > 20 mg/l rat (estimated using additivity formula)
- Oral:** LD50 > 2,000 mg/kg rat (estimated using additivity formula)

Skin Corrosion/Irritation

Based upon component data, product is expected to show only mild skin irritation. Product may defat and dry the



SAFETY DATA SHEET

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skin leading to discomfort and dermatitis.

Serious Eye Damage/Irritation

Based upon component data, product is expected to show only mild eye irritation.

Sensitization - Respiratory or Skin

Based upon component data, product is not expected to cause skin or respiratory sensitization.

Germ Cell Mutagenicity

Based upon component data, product is not expected to cause germ cell mutagenicity.

Carcinogenicity

Product does not contain components considered carcinogenic.

Reproductive Toxicity

No data available for product as a whole.

The aliphatic light solvent naphtha used in this product is suspected of damaging fertility or the unborn child. It causes foetotoxicity in animals at doses which are maternally toxic and affects the reproductive system in animals at doses which produce other toxic effects.

Specific Target Organ Effects - Single Exposure

Based upon component data, product may produce central nervous system depression and cause effects such as drowsiness and dizziness.

Specific Target Organ Effects - Repeated or Prolonged Exposure

No data available for product as a whole.

The aliphatic light solvent naphtha used in this product may affect the peripheral nervous system causing peripheral neuropathy which can be potentiated by ketones. This component has caused kidney effects in male rats which are not considered relevant to humans.

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

Product is a blend of hydrocarbon solvent and a ketone. The product will float on water and cause a sheen. The ketone is soluble in water. The product is expected to be toxic to aquatic organisms. (Acute aquatic toxicity category 2 by European Union classification.) The product is volatile and will evaporate to air, where it is expected to rapidly oxidize by photochemical reactions. Product components may partition to sediments and waste water solids. The product is expected to be readily biodegradable.

Ecotoxicity

Acute toxicity for aquatic vertebrates and invertebrates estimated to be 5-20 mg/l (estimated using additivity formula).

Persistence and Degradability

Product components are or are expected to be readily biodegradable.

Bioaccumulative Potential

The aliphatic light solvent naphtha used in this product has the potential to bioaccumulate.



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Mobility in soil

The aliphatic light solvent naphtha used in this product will adsorb to soil particles and will not be mobile.

Other Adverse Effects

None known

SECTION 13: DISPOSAL CONSIDERATIONS

Product is a D001 Ignitable 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.: UN1993
Proper Shipping Name: FLAMMABLE LIQUID, N.O.S., (contains petroleum distillate and methyl propyl ketone)
Hazard Class: 3
Packing Group: II
Label: FLAMMABLE
RQ: No
Special Precautions: None

SECTION 15: REGULATORY INFORMATION

TSCA

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

RCRA HAZARD CLASS

D001 - Ignitable 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
Product as a whole				(1)			(2)
(1) This material is not subject to any special reporting under the requirements of CERCLA. Contact local authorities to determine if other reporting requirements apply. (2) This product subject to the reporting requirements under Section 311 of the CWA (40 CFR 110) and the OPA of 1990. Discharge or spills which produce a visible sheen on either surface water, or in waterways/sewers which lead to surface water, must be reported to the National Response Center at 800-424-8802.							

NEW JERSEY RIGHT-TO-KNOW INFORMATION:

This product contains aliphatic petroleum naphtha (CAS# 64742-89-8) and methyl propyl ketone (CAS# 107-87-9).

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.



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SCAQMD INFORMATION

Is there a photochemically reactive material present? Yes
What is the % by volume of photochemically reactive material? About 50
What is the VOC content? 780 g/l
What is the vapor pressure of VOC's? About 30 mm Hg @ 20°C

SECTION 16: OTHER INFORMATION

REVISION SUMMARY

New GHS format

SUPERSEDES ISSUE DATE

February 26, 2004

HAZARD RATING SYSTEMS:

	<u>HMIS</u>	<u>NFPA</u>
HEALTH	1	2
FLAMMABILITY	3	3
REACTIVITY	0	0

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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