



SAFETY DATA SHEET

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

PENSOLV™ LV15

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Date Prepared: November 11, 2019
MSDS No.: 476596

SECTION 1: IDENTIFICATION

Product name: PENSOLV LV15

Recommended use: Pulp and paper mill stickies remover

Physical Description: Clear water white liquid with mild odor

Generic Ingredients: Aliphatic hydrocarbons and d-limonene

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:

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

Flammable Liquid and Vapor.
May Be Fatal If Swallowed and Enters Airways.
Causes Eye and Skin Irritation.
May Cause an Allergic Skin Reaction.
May Cause Drowsiness or Dizziness.



Precautionary Statements:	
<p><u>Prevention:</u> Avoid breathing fumes, vapors or 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. Contaminated work clothing must not be allowed out of the workplace. 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.</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</p>	<p>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. Wash contaminated clothing before reuse. 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.</p> <p><u>Storage:</u> Store locked up. Store in a well-ventilated place. Keep cool. Keep container tightly closed.</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)
Aliphatic petroleum naphtha	64742-88-7	75-90
d-limonene	5989-27-5	10-25

(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. Slight reddening or minor irritation could develop some time after exposure if product is not quickly washed off. For sensitive individuals, a rash may appear.

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, and drowsiness. 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: 3

Flash Point: 105°F TCC

Autoignition Temperature: not determined

Lower Flammable Limit: 1% **Upper Flammable Limit:** 7%

Specific Hazards

Flammable liquid. Can form flammable mixtures at or above the flash point.

Extinguishing Media

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



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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 and not soluble in 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.**

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 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.



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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	
d-Limonene (1)	OSHA Z1	500 ppm	TWA	
	ACGIH	20 ppm	TWA	dscn; A4
	NIOSH	100 ppm	TWA	
	OSHA Z1	100 ppm	PEL	

(1) No OEL has been established for d-limonene. Value given is for turpentine which has same molecular weight and similar structure.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

Appearance: clear water-white liquid

Odor: mild citrus

Odor Threshold: not determined

pH: not applicable

Melting Point / Freezing: less than 0°F (-18°C)

Boiling Point / Boiling Point Range: about 315°F (150°C)

Flash Point: 105°F (43°C) TCC

Evaporation Rate: 0.1 (n-butyl acetate = 1)

Flammability: not applicable

Lower Flammable Limit: 1%

Upper Flammable Limit: 7%

Explosive Properties: not applicable

Vapor Pressure: less than 5 mm Hg at room temperature

Relative Vapor Density: about 4

Relative Density: 0.78

Solubility (Water): insoluble

Partition Coefficient (log K_{ow}): not determined

Auto-ignition temperature: not determined

Decomposition temperature: not determined

Viscosity: less than 5 centipoise at room temperature



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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.

Conditions to Avoid

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

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 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. Product may produce skin rash in sensitive people. If ingested, the product does present an aspiration hazard. Because of product's low room temperature vapor pressure, irritation of the respiratory tract is expected to be low. However, mists, particularly as a respirable aerosol, may cause moderate irritation to the respiratory tract. Ingestion of high levels of d-limonene has caused kidney/liver effects in male rats. These results are not considered relevant to humans

Acute Toxicity:

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

Inhalation: no data available

Oral: LD50 > 4,000 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 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

d-Limonene may cause skin sensitization.

Germ Cell Mutagenicity

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

Carcinogenicity

Various studies have shown that d-limonene when fed at very high levels to laboratory animals have resulted in effects on the kidneys, liver, ureter, and bladder. d-Limonene is listed by IARC as Group 3: not classifiable as to its carcinogenicity to humans and is listed by ACGIH as Group 4: not classifiable as a human carcinogen. d-Limonene



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is listed as an equivocal tumorigenic agent by RTECS criteria.

Reproductive Toxicity

No data available.

Specific Target Organ Effects - Single Exposure

No data available.

Specific Target Organ Effects - Repeated or Prolonged Exposure

Ingestion of high levels of d-limonene has caused kidney/liver effects in male rats. These results are not considered relevant to humans. Repeated dose toxicity studies of d-limonene on male and female mice had a NOEL of 1,650 mg/kg and a LOEL of 3,300 mg/kg.

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 solvents and as such, will float on water and cause a sheen. The product is expected to be toxic to aquatic organisms and should be considered a marine pollutant. (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. It is not expected to partition to sediments and wastewater solids. The product is inherently biodegradable.

Ecotoxicity

Acute toxicity for aquatic vertebrates and invertebrates estimated to be 1-10 mg/l based (estimated using additivity formula)

Persistence and Degradability

Product is inherently biodegradable and not expected to persist.

Bioaccumulative Potential

Not expected to bioaccumulate

Mobility in soil

Product expected to have low mobility

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.



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SECTION 14: TRANSPORT INFORMATION

ID No.: UN3295
Proper Shipping Name: HYDROCARBONS, LIQUID, N.O.S.
Hazard Class: 3
Packing Group: III
Marine Pollutant: Yes
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)
<p>(1) This material is not subject to any special reporting under the requirements of CERCLA. CERCLA petroleum exclusion applies for this product. Contact local authorities to determine if other reporting requirements apply.</p> <p>(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.</p>							

NEW JERSEY RIGHT-TO-KNOW INFORMATION:
This product contains aliphatic petroleum naphtha (CAS# 64742-88-7) and d-limonene (CAS# 5989-27-5).

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.

SECTION 16: OTHER INFORMATION

REVISION SUMMARY
Change in Section 1

SUPERSEDES ISSUE DATE
February 12, 2016

HAZARD RATING SYSTEMS:

	HMIS	NFPA
HEALTH	1	1
FLAMMABILITY	2	2
REACTIVITY	0	0
	B	

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



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

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