SECTION 1: IDENTIFICATION

Product name: PENSOLV L945 AEROSOL
Recommended use: General purpose bench top aerosol solvent degreaser
Physical Description: Clear water white liquid with mild citrus odor
Generic Ingredients: Aliphatic hydrocarbons, d-limonene, and propellant
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:

Health:
Skin irritation: 2
Eye irritation: 2B
Skin sensitization: 1

Specific target organ toxicity - single exposure: 3
Aspiration hazard: 1

Physical:
Flammable aerosol: 1
Dissolved gas

DANGER!
Extremely Flammable Aerosol.
Contains Gas Under Pressure; May Explode if Heated.
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:

Prevention:
Keep away from heat/sparks/open flames/hot surfaces.--No smoking. Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
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.
Avoid breathing fumes, vapors or mists if inhalable mists occur during use. Use only outdoors or in a well-ventilated area.

Response:
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: Get medical advice/attention.

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

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center, doctor, emergency room or 911 if you feel unwell.

If swallowed: Immediately call a poison center, doctor, emergency room, or 911. Do NOT induce vomiting.

Storage:
Protect from sunlight. Keep cool. Do not expose to temperatures exceeding 50°C/122°F. Store locked up. Store in a well ventilated place.

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).
SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Concentration Wt% (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic petroleum naphtha</td>
<td>64742-47-8 &amp; 64742-14-9</td>
<td>75-90</td>
</tr>
<tr>
<td>d-limonene</td>
<td>5989-27-5</td>
<td>10-20</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>124-38-9</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>

(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 workplace 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. 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): Wash with plenty of water. A mild soap may be used. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Special Treatment / Other

None

SECTION 5: FIRE FIGHTING MEASURES

**Flammable Properties**

Classification: 4

Flash Point: 145°F TCC

Autoignition Temperature: not determined

Lower Flammable Limit: about 0.6%  Upper Flammable Limit: about 6%

**Specific Hazards**

Flammable aerosol. Aerosol cans are under pressure. Exposure to temperatures above 120°F can cause bursting of cans. Containers can rupture and explode under fire conditions due to pressure and vapor buildup.

**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:** 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.

*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

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Source</th>
<th>Value</th>
<th>Type</th>
<th>Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic petroleum naphtha</td>
<td>ACGIH</td>
<td>1200 mg/m³</td>
<td>TWA</td>
<td>Appendix H</td>
</tr>
<tr>
<td></td>
<td>NIOSH</td>
<td>350 mg/m³</td>
<td>TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1800 mg/m³</td>
<td>C</td>
<td></td>
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<tr>
<td></td>
<td>OSHA Z1</td>
<td>500 ppm</td>
<td>TWA</td>
<td></td>
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<tr>
<td>d-Limonene (1)</td>
<td>ACGIH</td>
<td>20 ppm</td>
<td>TWA</td>
<td>dsen; A4</td>
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<td></td>
<td>NIOSH</td>
<td>100 ppm</td>
<td>TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OSHA Z1</td>
<td>100 ppm</td>
<td>PEL</td>
<td></td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>ACGIH</td>
<td>5,000 ppm</td>
<td>TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>30,000 ppm</td>
<td>STEL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NIOSH</td>
<td>5,000 ppm</td>
<td>TWA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>30,000 ppm</td>
<td>STEL</td>
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<tr>
<td></td>
<td>OSHA</td>
<td>5,000 ppm</td>
<td>TWA</td>
<td></td>
</tr>
</tbody>
</table>

(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:** 145°F TCC
- **Evaporation Rate:** <0.01 (n-butyl acetate = 1)
- **Flammability:** not applicable
- **Lower Flammable Limit:** 0.6%
- **Upper Flammable Limit:** 6%
- **Explosive Properties:** not applicable
- **Vapor Pressure:** about 0.05 mm Hg @ 20°C (68°F)
- **Relative Vapor Density:** greater than 4
- **Relative Density:** 0.78
- **Solubility (Water):** insoluble
- **Partition Coefficient (log K<sub>ow</sub>):** not determined
- **Auto-ignition temperature:** not determined
- **Decomposition temperature:** not determined
- **Viscosity:** less than 5 centipoise at room temperature
SECTION 10: STABILITY & REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Stable under normal conditions.

Hazardous Reactions
No hazardous reactions or under normal storage conditions. Hazardous polymerization will not occur.

Conditions to Avoid
Product is a combustible 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 is essentially non-toxic. May cause mild, short lasting discomfort to the eye. Prolonged or repeated exposure may dry the skin leading to discomfort and dermatitis. Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, and may cause headaches, dizziness, drowsiness, unconsciousness and other central nervous system effects. Ingestion of high levels of d-limonene has caused kidney/liver effects in male rats. These results are not considered relevant to humans

NOTE: Values in this section refer only to the solvent.

Acute Toxicity:
Dermal: LD50 > 2,000 mg/kg rabbit (estimated using additivity formula)
Inhalation: no data available
Oral: LD50 > 5,000 mg/kg rat (estimated using additivity formula)

Skin Corrosion/Irritation
Mildly irritating to skin with prolonged exposure. Prolonged exposure may dry the skin leading to discomfort and dermatitis. Not considered irritating based on test data for structurally similar materials.

Serious Eye Damage/Irritation
May cause mild, short-lasting discomfort. Not considered irritating based on test data for structurally similar materials.

Sensitization - Respiratory or Skin
d-Limonene may cause skin sensitization.

Germ Cell Mutagenicity
Not expected to be a germ cell mutagen. Based on test data for structurally similar materials.

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 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
No data available.

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. (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.

NOTE: Values in this section refer only to the solvent.

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

Persistence and Degradability
Expected to be readily biodegradable. Transformation due to hydrolysis and photolysis not expected to be significant. Expected to degrade rapidly in air.

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 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.
SAFETY DATA SHEET
Penetone Corporation, 700 Gotham Parkway, Carlstadt, NJ 07072

PENSOLV™ L945 AEROSOL

Section 14: Transport Information

ID No.: UN1950
Proper Shipping Name: AEROSOLS
Hazard Class: 2.1
Packing Group: not applicable
Marine Pollutant: No
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)

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS / 313 Code</th>
<th>Section 302 (EHS) TPQ</th>
<th>Section 304 EHS RQ</th>
<th>CERCLA RQ</th>
<th>Section 313</th>
<th>CAA 112(r) TQ</th>
<th>CWA / OPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product as a whole</td>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

(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.
(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 naphthas (CAS# 64742-47-8 and 64742-14-9) 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.

SCAQMD Information
Is there a photochemically reactive material present? Yes
What is the % by volume of photochemically reactive material? About 15
What is the VOC content? 780g/l
What is the vapor pressure of VOC’s? Less than 1.0 mm Hg @ 20°C (68°F)
### SECTION 16: OTHER INFORMATION

**REVISION SUMMARY**  
New GHS format

**SUPERSEDES ISSUE DATE**  
June 4, 2008

**HAZARD RATING SYSTEMS:**

<table>
<thead>
<tr>
<th>HMIS</th>
<th>NFPA</th>
<th>KEY</th>
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</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>1</td>
<td>4 = Severe</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>2</td>
<td>3 = Serious</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>0</td>
<td>2 = Moderate</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>1 = Slight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0 = Minimal</td>
</tr>
</tbody>
</table>

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 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.