SAFETY DATA SHEET
Penetone® Corporation, 125 Kingsland Ave., Clifton, NJ 07014

CITRIKLEEN® XPC

SECTION 1: IDENTIFICATION

Product name: CITRIKLEEN XPC
Recommended use: Cleaning, degreasing, ink and adhesive removal
Physical Description: Clear water white liquid with citrus odor
Generic Ingredients: d-Limonene, surfactants, 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 x2300 or 2272

Clifton, NJ 07014

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 liquid: 3

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:

Prevention:
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.

Response:
In case of fire: Use dry chemical, carbon dioxide, water spray, water fog, or foam. Do not use solid water stream as this may spread the fire.
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 (or hair): 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.
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:
Store locked up. Store in a well-ventilated place. Keep cool. Keep container tightly closed.

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>d-Limonene</td>
<td>5989-27-5</td>
<td>70-90</td>
</tr>
<tr>
<td>Tripropylene glycol methyl ether</td>
<td>24598-49-1</td>
<td>10-25</td>
</tr>
<tr>
<td>Ethoxylated C_{9-11} alcohols</td>
<td>68439-46-3</td>
<td>1-10</td>
</tr>
</tbody>
</table>

(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: 125°F TCC, 130°F COC
Autoignition Temperature: not determined
Lower Flammable Limit: not determined  **Upper Flammable Limit:** not determined

Specific Hazards
Flammable liquid. Can form flammable mixtures at or above the flash point. Although the product is flammable, it is 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.

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### 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. 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.*

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### SECTION 7: HANDLING & STORAGE

#### Handling

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.

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 locked up. Store in a well-ventilated place. Keep cool. Keep container tightly closed. 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).

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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**

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Source</th>
<th>Value</th>
<th>Type</th>
<th>Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-Limonene (1)</td>
<td>ACGIH</td>
<td>20 ppm</td>
<td>TWA</td>
<td>dsen; A4</td>
</tr>
<tr>
<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>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 15°F
**Boiling Point / Boiling Point Range**: initial about 322°F
**Flash Point**: 125°F TCC, 130°F COC
**Evaporation Rate**: less than 0.05 (acetone = 1)
**Flammability**: not applicable
**Lower Flammable Limit**: not determined
**Upper Flammable Limit**: not determined
**Explosive Properties**: not applicable
**Vapor Pressure**: about 1.9 mm Hg at 20°C
**Relative Vapor Density**: about 5
**Relative Density**: 0.865
**Solubility (Water)**: forms emulsion (rapidly separates, less than one hour)
**Partition Coefficient (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
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 is irritating to the skin and eyes and may cause a skin rash in sensitive people. 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.

Acute Toxicity:
- Dermal: LD50 > 4,000 mg/kg rabbit (estimated using additivity formula)
- Inhalation: LD50 > 1,000 mg/kg mice (estimated using additivity formula)
- Oral: LD50 > 2,000 mg/kg rat (estimated using additivity formula)

Skin Corrosion/Irritation
d-Limonene causes moderate (reversible) skin irritation on guinea pigs and low (reversible) irritation on rabbits. Product as a whole may cause moderate skin irritation.

Serious Eye Damage/Irritation
d-Limonene causes mild (reversible) eye irritation on rabbits. Product as a whole may cause mild eye irritation

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

Germ Cell Mutagenicity
d-Limonene: Negative for both mice and male rats

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
Tripropylene glycol methyl ether and the surfactant used in this product have produced effects in the fetus only at levels that were toxic to the parent animals.
Specific Target Organ Effects - Single Exposure
No data available.

Specific Target Organ Effects - Repeated or Prolonged Exposure
Repeated dose toxicity: d-limonene, mouse (male/female): NOEL - 1,650 mg/kg; LOEL - 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 because of high d-limonene content should be considered as very toxic to aquatic life. (Acute aquatic toxicity category 1 by European Union classification).

Ecotoxicity
Acute toxicity for aquatic vertebrates and invertebrates estimated to be about 1 mg/l. Acute toxicity for bacteria (sludge) estimated to be about 5 mg/l.

Persistence and Degradability
d-Limonene and tripropylene glycol methyl ether are readily degradable.

Bioaccumulative Potential
d-Limonene and tripropylene glycol methyl ether, because of their rapid degradation, are estimated to have a low BCF (log Pow < 3).

Mobility in soil
No data available for the product.

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 d-limonene)
Hazard Class: 3
Packing Group: III
Label: FLAMMABLE
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)

<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>no components subject to reporting</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

NEW JERSEY RIGHT-TO-KNOW INFORMATION
This product contains d-limonene (CAS# 5989-27-5), tripropylene glycol monomethyl ether (CAS# 25498-49-1), and ethoxylated C₉₋₁₁ alcohols (CAS# 68439-46-3).

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 80
What is the VOC content? 790 g/l
What is the vapor pressure of VOC's? 1.9 mm Hg @ 20°C

SECTION 16: OTHER INFORMATION

REVISION SUMMARY
Change in header, section 1

HAZARD RATING SYSTEMS:

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

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