SAFETY DATA SHEET

Section 1 - Identification

Product Identifier
ECO-SOLV Non-Chlorinated / Non-CFC’s Safety Solvent

Other means of identification
1480

Recommended use
Solvent cleaner.

Recommended restrictions
For commercial and industrial use only.

Manufacturer / Importer / Supplier / Distributor Information
Company Name
National Chemical Laboratories of PA, Inc.
Address
401 N. 10th Street - Philadelphia, PA 19123
Telephone
1 (215) 922-1200
Supplier Email
info@nclonline.com
Contact
CHEM-TEL
Emergency Phone
1 (800) 255-3924

Section 2 - Hazard(s) Identification

OSHA defined hazards
Not Classified.

Label Elements

Physical Hazards
- Flammable Liquids
  - Category 4

Health Hazards
- Aspiration hazard
  - Category 1
- Sensitization, skin
  - Category 1
- Skin corrosion/irritation
  - Category 2
- Specific target organ toxicity, single exposure
  - Category 3
  - Narcotic effects

SDS Hazards and Warnings are based on the undiluted product. Refer to diluted SDS for Ready-To-Use Hazards and Warnings.

Section 3 - Composition/Information on ingredients

Mixture

Hazardous Components
- Ingredient Name
- CAS #
- %
  - Naptha (petroleum) hydrotreated heavy
    - 64742-48-9
    - 80 - 100
  - Citrus Terpenes
    - 5989-27-5
    - 1 - 5

Section 4 - First-aid Measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if irritation develops and persists.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
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Eye contact: Rinse with water. Get medical attention if irritation develops and persists.

Ingestion: Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn’t get into the lungs.


Indication of immediate medical attention and special treatment: Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General Information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

Section 5 - Fire-fighting measures


Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment /instructions: In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

General fire hazards: Combustible liquid.

Specific Methods: Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6 - Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch or walk through spilled material. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will spread on the water surface. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

Section 7 - Handling and storage

Precautions for safe handling: Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

Section 8 - Exposure control/personal protection

Occupational exposure limits: No exposure limits noted for ingredient(s).

US. Workplace environmental Exposure Level (WEEL) Guides

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus Terpenes (CAS 5989-27-5)</td>
<td>TWA</td>
<td>165.5 mg/m³, 30 ppm</td>
</tr>
</tbody>
</table>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum) hydrotreated heavy (CAS 64742-48-9)</td>
<td>TWA</td>
<td>400 mg/m³, 100 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
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</thead>
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<td>400 mg/m³, 100 ppm</td>
</tr>
</tbody>
</table>

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
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Individual protection measures, such as personal protective equipment
Eye/face protection: Chemical respirator with organic vapor cartridge and full facepiece.
Skin protection
   Hand protection: Wear appropriate chemical resistant gloves.
   Other: Wear appropriate chemical resistant clothing.
Respiratory protection: Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.
Thermal hazards: Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations: When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

**Section 9 - Physical and chemical properties**

**Appearance**

- Physical state: Liquid.
- Form: Clear, thin liquid.
- Color: Colorless.
- Odor: Citrus.
- Odor threshold: Not available.
- pH: Not applicable.
- Melting point/freezing point: Not relevant.
- Initial boiling point and boiling range: 360°F (182°C) - 412°F (211°C)
- Flash point: 142°F (61°C) Tag Closed Cup
- Evaporation rate: Not available.
- Flammability (solid, gas): Not available.
- Upper/lower flammability or explosive limits:
  - Flammability limit - lower (%): 0.7
  - Flammability limit - upper (%): 5.3
  - Explosive limit - lower (%): Not available.
  - Explosive limit - upper (%): Not available.
- Vapor pressure: < 0.07 kPa @68 °F (20 °C)
- Vapor density: 5.6 @75 °F (23.89 °C)
- Relative density: 0.76 ± 0.01
- Relative density temperature: 75 °F (23.9 °C)
- Solubilities (water): Insoluble.
- Partition Coefficient n-octanol/water: Not available
- Auto-ignition temperature: Not Available
- Decomposition temperature: Not Available
- Viscosity: < 10 cSt
- Viscosity Temperature: 75 °F (23.89 °C)

**Section 10 - Stability and reactivity**

**Reactivity**
The product is stable and non-reactive under normal conditions of use, storage and transport.
**Chemical stability**
Material is stable under normal conditions.
**Possibility of hazardous reactions**
No dangerous reaction known under conditions of normal use.
**Conditions to Avoid**
Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
**Incompatible materials**
Strong oxidizing agents.
**Hazardous Decomposition Products**
No hazardous decomposition products are known.

**Section 11 - Toxicological information**

**Information on likely routes of exposure**

- **Ingestion**: May be harmful if swallowed. Swallowing or vomiting of the liquid may result in aspiration into the lungs.
- **Inhalation**: Harmful.
- **Skin contact**: Causes skin irritation. May cause an allergic skin reaction.
- **Eye contact**: Direct contact with eyes may cause temporary irritation.
- **Information on toxicological effects**
  - **Acute toxicity**: May be fatal if swallowed and enters airways. Narcotic effects. May cause an allergic skin reaction.
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Skin corrosion/irritation Causes skin irritation.
Serious eye damage/ eye irritation Direct contact with eyes may cause temporary irritation.
Respiratory sensitization This product is not expected to cause respiratory sensitization.
Skin sensitization May cause an allergic skin reaction.
Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Result</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus Terpenes (CAS 5989-27-5)</td>
<td>3</td>
<td>Not classifiable as to carcinogenicity to humans.</td>
</tr>
</tbody>
</table>

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure Not classified.
Aspiration hazard May be fatal if swallowed and enters airways.
Chronic effects Prolonged inhalation may be harmful.
Further information No other specific acute or chronic health impact noted.

Section 12 - Ecological Information

Ecotoxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Component(s) Naptha (petroleum) hydrotreated heavy, 64742-48-9

Aquatic

<table>
<thead>
<tr>
<th>Level</th>
<th>Type</th>
<th>Code</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>Fish</td>
<td>LC50</td>
<td>Pimephales promelas</td>
<td>8.2 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability No data is available on the degradability of this product.
Bioaccumulative potential No data available.
Partition coefficient n-octanol / water log (Kow)

<table>
<thead>
<tr>
<th>Components</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus Terpenes (CAS 5989-27-5)</td>
<td>4.232</td>
</tr>
</tbody>
</table>

Mobility in soil No data available.
Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13 - Disposal considerations

Disposal instructions Dispose in accordance with applicable federal, state, and local regulations.
Local disposal regulations Dispose of in accordance with local regulations.
Hazardous waste code Waste codes should be assigned by the user based on the application for which the product was used.
Waste from residues / unused products Dispose in accordance with all applicable regulations.
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Section 14 - Transport information

DOT Not regulated as dangerous goods.
IATA Not regulated as dangerous goods.
IMDG Not regulated as dangerous goods.
Transportation in bulk according to Annex II of MARPOL 73/78 and IBC Code This substance / mixture is not intended to be transported in bulk.
General Information This material is not regulated under 49 CFR §173.150(f)(2) in a container of 119 gallon capacity or less, unless the combustible liquid is a hazardous substance, a hazardous waste, or a marine pollutant.

Section 15 - Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed
CERCLA Hazardous Substance List (40 CFR 302.4) Not Listed
Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard Categories
- Immediate Hazard: Yes
- Delayed Hazard: No
- Fire Hazard: Yes
- Pressure Hazard: No
- Reactivity Hazard: No

SARA 302 Extremely hazardous substance: Not listed.
SARA 311/312 Hazardous chemical: Yes
SARA 313 (TRI reporting): Not regulated.

Other federal regulations
- Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HSPs) List: Not regulated.
- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.
- Food and Drug Administration (FDA): Not regulated.

US state regulations
- US. Massachusetts RTK - Substance List: Components
  - Naptha (petroleum) hydrotreated heavy (CAS 64742-48-9)
- US. New Jersey Worker and Community Right-to-Know Act: Components
  - Naptha (petroleum) hydrotreated heavy (CAS 64742-48-9)
  - Citrus Terpenes (CAS 5989-27-5)
- US. Pennsylvania RTK - Hazardous Substances: Components
  - Naptha (petroleum) hydrotreated heavy (CAS 64742-48-9)
- US. Rhode Island RTK: Not regulated.
- US. California Proposition 65: California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory Name</th>
<th>On Inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSI)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances</td>
<td>Yes</td>
</tr>
<tr>
<td>United States Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
*A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Section 16 - Other information, including date of preparation or last version**

Issue date: 12/7/2017
Version #: 03

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