1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Penreco® Conosol® C-145
Intended Use: High-Purity Hydrocarbon Solvent
Chemical Family: Petroleum Hydrocarbon

Responsible Party: Penreco
8701 New Trails Dr. Suite 175
The Woodlands, TX  77381

Customer Service: 800-245-3952
www.penreco.com

Technical Information: 800-245-3952

Emergency Overview

24 Hour Emergency Telephone Numbers:
Spill, Leak, Fire or Accident Call CHEMTREC:
North America: (800) 424-9300
Others: (703) 527-3887 (collect)

California Poison Control System: (800) 356-3129

Health Hazards/Precautionary Measures: Aspiration hazard if swallowed. Can enter lungs and cause damage. Use with ventilation adequate to keep exposure below recommended limits, if any. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not taste or swallow.

Physical Hazards/Precautionary Measures: Combustible liquid and vapor. Keep away from heat, sparks, flames, static electricity or other sources of ignition.

Appearance: Clear, colorless
Physical Form: Liquid
Odor: Mild petroleum

NFPA 704 Hazard Class
Health: 1  Flammability: 2  Instability: 0  Legend: 0 (Least), 1 (Slight), 2 (Moderate), 3 (High), 4 (Extreme)

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration (wt %)</th>
<th>ACGIH:</th>
<th>OSHA:</th>
<th>NIOSH:</th>
<th>Other:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrotreated Distillate, Light</td>
<td>100</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>
3. HAZARDS IDENTIFICATION

Potential Health Effects
Eye: Contact may cause mild eye irritation including stinging, watering, and redness.

Skin: Contact may cause mild skin irritation including redness, and a burning sensation. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin leading to dermatitis (inflammation). No harmful effects from skin absorption are expected.

Inhalation (Breathing): Expected to have a low degree of toxicity by inhalation.

Ingestion (Swallowing): Low degree of toxicity by ingestion. ASPIRATION HAZARD - This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.

Signs and Symptoms: Effects of overexposure may include irritation of the respiratory tract, irritation of the digestive tract, nausea, vomiting, transient excitation followed by signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue).

Cancer: There is inadequate information to evaluate the cancer hazard of this material. See Section 11 for information on the individual components, if any.

Target Organs: Inadequate data available for this material.

Developmental: Inadequate data available for this material.

Pre-Existing Medical Conditions: Conditions aggravated by exposure may include skin disorders.

4. FIRST AID MEASURES

Eye: If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

Skin: Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops and persists, seek medical attention.

Inhalation (Breathing): If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion (Swallowing): Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

5. FIRE-FIGHTING MEASURES

Flammable Properties:
Unusual Fire & Explosion Hazards: This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). May create vapor/air explosion hazard if heated. If container is not properly cooled, it can rupture in the heat of a fire.

Extinguishing Media: Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

6. ACCIDENTAL RELEASE MEASURES

Combustible. Keep all sources of ignition away from spill/release. The use of explosion-proof electrical equipment is recommended.

Stay upwind and away from spill/release. Notify persons downwind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8).

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material. Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended.
7. HANDLING AND STORAGE

Handling: Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel to another. Can accumulate static charge by flow or agitation. Can be ignited by static discharge. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-704 and/or API RP 2003 for specific bonding/grounding requirements. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8).

Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames. Use good personal hygiene practices.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Post area "No Smoking or Open Flame." Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional engineering controls may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used (see appropriate electrical codes).

Personal Protective Equipment (PPE):

Respiratory: The use of respiratory protection is advised when concentrations are expected to exceed the established exposure limits (see Section 2). Depending on the airborne concentration, use a respirator with organic vapor cartridges (NIOSH certified) or supplied-air equipment.

Skin: The use of nitrile gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation, and skin damage (see glove manufacturer literature for information on permeability). Depending on conditions of use, nitrile apron and/or arm covers may be necessary.

Eye/Face: Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, colorless</td>
</tr>
<tr>
<td>Physical Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild petroleum</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>2 @ 100°F (38°C)</td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

- **Vapor Density (air=1):** 6.2
- **Boiling Point/Range:** 370-470°F (187.8-243.3°C)
- **Melting/Freezing Point:** No data
- **Pour Point:** -40°F (-40°C)
- **Solubility in Water:** Insoluble
- **Solubility in Other Solvents:** Soluble in hydrocarbons
- **Partition Coefficient (n-octanol/water) (Kow):** No data
- **Specific Gravity:** 0.82 @ 60ºF (15.6ºC) lbs/gal
- **VOC Content(%):** 100
- **Evaporation Rate (nBuAc=1):** No data
- **Flash Point:** 155°F / 68°C
- **Test Method:** Pensky-Martens Closed Cup (PMCC), ASTM D93, EPA 1010
- **LEL (vol % in air):** 1.0
- **UEL (vol % in air):** 6.0
- **Autoignition Temperature:** No data
- **Decomposition Temperature:** No data

10. STABILITY AND REACTIVITY

**Stability:** Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Conditions to Avoid:** Avoid all possible sources of ignition (see Sections 5 and 7).

**Materials to Avoid (Incompatible Materials):** strong oxidizing agents, strong reducing agents.

**Hazardous Decomposition Products:** Combustion can yield carbon dioxide and carbon monoxide.

**Hazardous Polymerization:** Will not occur.

11. TOXICOLOGICAL INFORMATION

**Chronic Data:**

Hydrotreated Distillate, Light ..C9-16 64742-47-8

*Carcinogenicity:* Prolonged and repeated skin exposure of mice to certain middle distillate streams has resulted in dermatitis, which has been associated with the promotion of skin tumors via a non-genotoxic mechanism. This material has not been identified as a carcinogen by NTP, IARC, or OSHA.

**Acute Data:**

Hydrotreated Distillate, Light ..C9-16 64742-47-8

*Dermal LD50:* >2g/kg (Rabbit) (Based on similar material)

*Inhalation LC50:* >5mg/L (4-hr., Rat) (Based on similar material)

*Oral LD50:* > 5g/kg (Rat) (Based on similar material)

12. ECOLOGICAL INFORMATION

Not evaluated.
13. DISPOSAL CONSIDERATIONS

This material, if discarded as produced, would be a RCRA "characteristic" hazardous waste due to the characteristic(s) of ignitability (D001). If the spilled or released material impacts soil, water, or other media, characteristic testing of the contaminated materials may be required prior to their disposal. Further, this material, once it becomes a waste, is subject to the land disposal restrictions in 40 CFR 268.40 and may require treatment prior to disposal to meet specific standards. Consult state and local regulations to determine whether they are more stringent than the federal requirements.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)
- Shipping Description: Petroleum distillates, n.o.s., combustible liquid, UN1268, III (Bulk only)
- Bulk Package/Placard Marking: Combustible/1268
- Non-Bulk Package Marking: Not Regulated (173.150 (f) (2))
- Non-Bulk Package Labeling: Not Regulated (173.150 (f) (2))
- Packaging - References (Exceptions, Non-Bulk, Bulk): None, none, 49 CFR 173.241
- Hazardous Substance: None
- Emergency Response Guide: 128

International Maritime Dangerous Goods (IMDG)
- Shipping Description: Not regulated. Flash point is above 61°C, CC.
- Note: Federal compliance requirements may apply. See 49 CFR 171.12.

International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
- Shipping Description: Not regulated. Flash point is above 61°C, CC.
- Note: Federal compliance requirements may apply. See 49 CFR 171.11.

15. REGULATORY INFORMATION

U.S. Regulations:

CERCLA/SARA - Section 311/312 (Title III Hazard Categories)
- Acute Health: No
- Chronic Health: No
- Fire Hazard: Yes
- Pressure Hazard: No
- Reactive Hazard: No

CERCLA/SARA - Section 313 and 40 CFR 372:
This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372: None Known

EPA (CERCLA) Reportable Quantity (in pounds):
None Known

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):
This material contains the following chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372: None Known

California Proposition 65:
Warning: This material may contain the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):
None Known

Carcinogen Identification:
This material has not been identified as a carcinogen by NTP, IARC, or OSHA. See Section 11 for carcinogenicity information of individual components, if any.

**TSCA:**
All components are listed on the TSCA inventory.

**International Regulations:**

**Canadian Regulations:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**Domestic Substances List:** Listed
**WHMIS Hazard Class:**
B3 - Combustible Liquids

**International Inventories:**
Australia (AICS)
Canada (DSL)
China
Europe (EINECS)
Japan (ENCS)
Korea (ECL)
Philippines (PICCS)

**Export Control Classification Number:** EAR99

### 16. OTHER INFORMATION

**Issue Date:** 02-Aug-2006
**Previous Issue Date:** 28-May-2002
**Revised Sections or Basis for Revision:** Shipping information (Section 14)
Periodic review and update
**MSDS Code:** 787144

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