


 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : W/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER</p>			<p>1 Page of 1</p>

.....
Section 1 - Chemical Product and Company Identification
.....

MSDS Name:

Petroleum Ether

Catalog Number:

P053

Synonyms:

HEX;PETROL;BENZIN;NAPHTHA;LIGROIN;HEXANES;BENZINE;LIGROINE;N-HEXANES;ALKANE C6



Company Identification:

LEONID CHEMICALS Pvt Ltd,
62/A2, 1st Stage,
Yeshvanthpur Industrial Suburb,
Asoka puram School Road,
Bangalore -22, Karnataka, INDIA
Ph- +91-80-23378354

Fax: +918023378354/23377126

.....
Section 2 - Composition, Information on Ingredients
.....

CAS#	Chemical Name	Percent	EINECS/ELINCS
8032-32-4	Petroleum Ether	100	232-453-7

 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER</p>			<p>2 Page of 1</p>

.....

Section 3 - Hazards Identification

.....

EMERGENCY OVERVIEW

Appearance: colorless liquid.

Danger! Flammable liquid and vapor. Breathing vapors may cause drowsiness and dizziness. Harmful if inhaled or swallowed. Cancer hazard. May cause eye, skin, and respiratory tract irritation. Aspiration hazard if swallowed. Can enter lungs and cause damage. May cause central nervous system depression.

Target Organs: Kidneys, central nervous system, lungs.

Potential Health Effects

Eye: May cause eye irritation.

Skin: Exposure may cause irritation characterized by redness, dryness, and inflammation. May aggravate existing skin disorders.

Ingestion: Aspiration hazard. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.



Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. High vapor concentrations may cause drowsiness. Aspiration may cause respiratory swelling and pneumonitis. May cause numbness in the extremities.

Chronic: Prolonged or repeated skin contact may cause dermatitis. Chronic exposure to vapors may produce polyneuropathy. May cause kidney damage. Potential cancer hazard.

.....

Section 4 - First Aid Measures

.....

 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER</p>			<p>3 Page of 1</p>

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician: Treat symptomatically and supportively.

.....

Section 5 - Fire Fighting Measures

.....

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Use water spray to keep fire-exposed containers cool. Vapor may cause flash fire. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

Extinguishing Media: Water may be ineffective. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area where the water cannot be contained. Cool containers with flooding quantities of water until well after fire is out. Use dry chemical, carbon dioxide, or appropriate foam.

Flash Point: < -17.8 deg C


Autoignition Temperature: 287.8 deg C (550.04 deg F)

Explosion Limits, Lower: 1.1

Upper: 5.9

NFPA Rating: (estimated) Health: 1; Flammability: 3; Instability: 0

.....

	<p align="center">LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p align="center">An ISO-9001:2008 Certified Company</p> <p align="center">Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI</p> <p>(CODE) SECTION : WI/SM</p> <p>(DATE) : 01.04.2011</p>	 <p>Issue : 02</p> <p>Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER</p>			<p>4 Page of 1</p>

Section 6 - Accidental Release Measures

.....

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

.....

Section 7 - Handling and Storage

.....



Handling: Wash thoroughly after handling. Use with adequate ventilation. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Prevent build up of vapors to explosive concentration. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables area.

.....

Section 8 - Exposure Controls, Personal Protection

.....

 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER</p>			<p>5 Page of 1</p>

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Petroleum Ether	300 ppm TWA	350 mg/m ³ TWA	none listed

OSHA Vacated PELs: Petroleum Ether: 300 ppm TWA; 1350 mg/m³ TWA

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.


Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

.....
Section 9 - Physical and Chemical Properties
.....

Physical State: Liquid
Appearance: colorless
Odor: mild odor - gasoline-like
pH: Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Slower than ether
Viscosity: Not available.
Boiling Point: 65 - 70°C
Freezing/Melting Point: Not available.

	LEONID CHEMICALS PVT. LTD., BANGALORE An ISO-9001:2008 Certified Company Quality Assurance Department	(CODE) DOCUMENT : WI (CODE) SECTION : W/SM (DATE) : 01.04.2011	 Issue : 02 Rev.: 00
Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER		6 Page of 1	

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: 0.73 g/mL

Molecular Formula: Hydrocarbon

Molecular Weight: Not available

.....

Section 10 - Stability and Reactivity

.....

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat.

Incompatibilities with Other Materials: May explode with nitrogen tetroxide, potential violent reaction with strong oxidizers.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

.....

Section 11 - Toxicological Information

.....

RTECS#:

CAS# 8032-32-4: 016180000

LD50/LC50:



CAS# 8032-32-4:

Inhalation, rat: LC50 = 3400 ppm/4H;

Carcinogenicity:

CAS# 8032-32-4:

- ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans
- California: Not listed.

	<p align="center">LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p align="center">An ISO-9001:2008 Certified Company</p> <p align="center">Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI</p> <p>(CODE) SECTION : WI/SM</p> <p>(DATE) : 01.04.2011</p>	 <p>Issue : 02</p> <p>Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER</p>			<p>7 Page of 1</p>

- NTP: Not listed.
- IARC: Not listed.

Epidemiology: Epidemiological studies involving petroleum refinery workers indicate persons with routine exposure to petroleum or one of its constituents may be at an increased risk to the development of benign neoplasms, digestive tract cancer, and skin cancer.

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

.....

Section 12 - Ecological Information

.....

Ecotoxicity: No data available. This chemical is expected to cause some oxygen depletion in aquatic systems. It has a low potential to affect aquatic systems. It has a low potential to affect aquatic organisms, secondary waste treatment microorganisms and the germination of some plants. It has a moderate potential to affect the germination and growth of some plants.

Environmental: No information available.

Physical: No information available.

Other: No information available.

.....

Section 13 - Disposal Considerations

.....

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER</p>			<p>8 Page of 1</p>

RCRA P-Series: None listed.
RCRA U-Series: None listed.

.....

Section 14 - Transport Information

.....

	US DOT	Canada TDG
Shipping Name:	PETROLEUM DISTILLATES, N.O.S.	PETROLEUM DISTILLATES, N.O.S.
Hazard Class:	3	3
UN Number:	UN1268	UN1268
Packing Group:	II	II

.....

Section 15 - Regulatory Information

.....

US FEDERAL

TSCA

CAS# 8032-32-4 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule


None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPO.

	LEONID CHEMICALS PVT. LTD., BANGALORE An ISO-9001:2008 Certified Company Quality Assurance Department	(CODE) DOCUMENT : WI (CODE) SECTION : W/SM (DATE) : 01.04.2011	 Issue : 02 Rev.: 00
Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER		9 Page of 1	

SARA Codes

CAS # 8032-32-4: immediate, delayed, fire.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 8032-32-4 can be found on the following state right to know lists: New Jersey, Pennsylvania, Minnesota.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

T

Risk Phrases:

R 10 Flammable.

R 45 May cause cancer.

R 65 Harmful: may cause lung damage if swallowed.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 33 Take precautionary measures against static discharges.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 53 Avoid exposure - obtain special instructions before use.

	<p align="center">LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p align="center">An ISO-9001:2008 Certified Company</p> <p align="center">Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI</p> <p>(CODE) SECTION : WI/SM</p> <p>(DATE) : 01.04.2011</p>	 <p>Issue : 02</p> <p>Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS):PETROLEUM ETHER</p>			<p>10 Page of 1</p>

S 7 Keep container tightly closed.

S 431 In case of fire, use dry chemical, CO₂, water spray or foam. (These chemicals have very low flashpoints and the use of water spray may be inefficient).

WGK (Water Danger/Protection)

CAS# 8032-32-4: 1

Canada - DSL/NDSL

CAS# 8032-32-4 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B2, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 8032-32-4 is listed on the Canadian Ingredient Disclosure List.

.....

Section 16 - Additional Information

.....

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Leonid Chemicals Pvt. Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Leonid Chemicals Pvt. Ltd. has been advised of the possibility of such damages.

Quality Our Forte

	LEONID CHEMICALS PVT. LTD., BANGALORE An ISO-9001:2008 Certified Company Quality Assurance Department	(CODE) DOCUMENT : R/QPM/8.2.4/06	
		(CODE) SECTION : P053	
Title: SPECIFICATION MANUAL - PETROLEUM ETHER 60-80°C LR			Issue : 02 Rev.: 00 1 Page of 1

Specification Manual - Petroleum ether 60-80°C

Product : Petroleum ether 60-80°C LR
Description : Clear colourless liquid
Cat No : P053
Cas No : 8032-32-4
Prepared Date : 02.04.2008
Approved Date : 02.04.2008

REVISION HISTORY			
Issue/Rev	Description of Change	Author	Effective Date
01/00	Initial Release	S. Paul Joshua	02.04.2008
02/00	Reviewed no changes	S. Paul Joshua	01.04.2011
Next Review Due :	02.04.2015		
To be reviewed by :	Head-QC/QA		

Sl. No.	Tests	Specification
1	Assay	Min 99 %
2	NVM	0.002% w/v
3	Boiling range	60-80°C

Approved By: S.Paul Joshua, Head Quality Control and Quality Assurance