

1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND COMPANY / UNDERTAKING

Tradename : FAROL
Product type & Use : Solvent use
Chemical Name / Synonyms : Light White Oil
CAS Name : Light White Oil
CAS Number : Mixture
Product Family : Product hydrocarbon solvent
Supplier : Gulf Farabi Petrochemical Co.
P.O.Box .11763, Jubail Industrial City,
Jubail – 31961. KSA.
KSA – 00 966 (3) 358 08 08

2. COMPOSITION / INFORMATION ON INGREDIENTS.

Product may be composed, in whole or in part of any of the following refinery streams:
Naphtha, petroleum solvent-refined light (CAS 64741-84-0)
Light Aliphatic solvent naphtha (petroleum) (CAS :64742-89-8)
n-Hexane, n-Heptane, n-Octane, n-Nonane, n-Decane, n-Undecane and other isomers mixture.

3. HAZARDS IDENTIFICATIONS

Signs and Symptoms of Acute Exposure :

Inhalation : Breathing high concentration may be harmful. Mist or vapour can irritate throat and lungs. Symptoms including nausea, dizziness, fatigue, drowsiness.

Eye contact : This product can cause mild eye irritation with short term contact with liquid sprays or mists. Symptoms include stinging, watering, redness and swelling.

Skin Contact: This material can cause skin irritation. Prolonged skin contact can produce moderate irritation.

Ingestion : If swallowed, this material may irritate the mucous membranes of the mouth, throat, and esophagus. It may be easily absorbed by stomach and intestinal tract. Due to light viscosity there is danger of aspiration into lungs during swallowing and subsequent vomiting.

4. FIRST AID MEASURES :

Contact with skin :

Immediately take off all contaminated clothing.
Wash with plenty of water and soap.
If symptoms persist, get medical attention.

Contact with eyes :

Wash immediately with cool low pressure water for at least 15 minutes.
Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue.
If symptoms of irritation occur, get medical attention.

Swallowing :

Do not induce vomiting since this may cause an aspiration hazard in the trachea. GET MEDICAL ATTENTION IMMEDIATELY.

Inhalation :

Inhalation overexposure may produce toxic effects. Administer supplemental Oxygen with assisted ventilation, as required.
Immediately move the victim to the fresh Air. If victim is not breathing, immediately begin rescue breathing. In the event of overheating or fire where fumes, vapour or aerosol are inhaled, immediately remove the victim from the contaminated premises to a well ventilated area. Get medical attention.

5. FIRE-FIGHTING MEASURES :

NEPA Flammability : NEPA Class IB Flammable Liquid.

Flash point closed cup : <3 deg.C

Autoignition temperature : Not available.

Lower Explosion Limit (LEL) : 1% Upper Explosion Limit (UEL) : 6%

Hazardous combustion Products: Carbon dioxide, Carbond monoxide, smoke, fumes and / or unburned hydrocarbons.

Special properties : When mixed with air in certain proportions and exposed to an ignition source, its vapour can cause flash fire. A vapour and air mixture can create an explosion hazard in confined spaces such as sewers.

Extinguishing Media : Small Fire : Use dry chemicals, carbon dioxide, foam, water fog or inert gas.

Large Fire : Use foam, water fog or water spray. Water fog and spray are effective in cooling containers and adjacent structures. However water can cause frothing and /or may not extinguish the fire. Water can be used to cool the external walls of vessels to prevent excessive pressure, auto-ignition or explosion. Do not use the solid stream of water directly on the fire as the water may spread the fire to a larger area.

Protection of Fire Fighters : Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles. Cover pooling liquid with foam. Containers can build pressures if exposed to radiant heat; cool adjacent containers with flooding quantities of water until well after the fire is out. Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks or pipelines. Be aware that burning liquid will float on water. Notify appropriate authorities if liquid enter sewers or waterways.

6. ACCIDENTAL RELEASE MEASURES :

Measures for personal safety :

Use gloves and protective clothing.

Environmental measures :

Ventilate the area if poorly ventilated.

Limit Leakages with earth or sand.

If the product is in liquid form, stop it from entering the drainage system.

If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

Cleaning methods :

Take up small spills with chemical absorbent or by inert material.

Large spill require pump or vacuum prior to absorbent.

Avoid contact with skin and eyes.

7. HANDLING AND STORAGE

Handling :

Keep containers closed and do not handle or store near heat, sparks or any other potential ignition sources. Do not contact with oxidizing materials. Do not breathe vapour. Use only with adequate entilation and personal protection. Never siphon by mouth. Avoid contact with eyes, skin and closthing. Prevent contact with food and tobacco products. Do not take internally.

When performing repairs and maintenance or contaminated equipment, keep unnecessary persons away from the area. Eliminate all potential ignition sources. Use gloves constructed of impervious material and protective clothing if direct contact is anticipated. Provide ventilation to maintain exposure potential below applicable exposure limits. Promptly remove contaminated clothing. Wash exposed skin thoroughly with soap and water after handling.

Empty containers may contain material residues which can ignite with explosive force. Misuse of empty containers can be dangerous if used to store toxic, flammable or reactive materials. Cutting or welding of empty containers can cause fire explosion, or release of toxic fumes from residues. Return empty drums to qualified re-conditioner.

Storage :

Keep containers tightly closed and store in a cool, dry, well-ventilated place. Keep away from ignition sources. Ground all equipment containing this material. Containers should be able to withstand pressures expected from warming and cooling in storage. All electrical equipments in areas where this material is stored or handled should be properly insulated and installed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Precautionary measures :

Give adequate ventilation to the premises where the product is stored and /or handled.

Respiratory Protection :

Required where ventilation is insufficient or exposure is prolonged.

Protection for Hands :

It is advisable to wear nitrile rubber or neoprene gloves.

Breakthrough time of the glove material: always seek advice from glove suppliers.

Eye protection :

It is advisable to wear safety goggles or face shield.

Suitable eyewash water should be readily available.

Body Protection : Avoid skin contact. Wear long-sleeved fire-retardant garments. If product comes in contact with clothing, immediately remove soaked clothing and shower. Properly remove and discard contaminated leather goods.

Occupational Exposure Guidelines :

| Substance | Applicable Workplace Exposure Levels. |
|-------------------------|--|
| n-Hexane | ASGIH (United States).Skin TWA : 50ppm 8 hours OSHA (United States) TWA 500ppm 8 hours. |
| n-Hexane, other isomers | ASGIH (United States) TWA 500ppm 8 hours. STEL 1000ppm 15 minutes. |
| Heptane all isomers | : ACGIH (United States) TWA : 400ppm 8 hours STEL :500ppm 15 minutes OSHA(United States) TWA :500ppm 8 hours |
| Octanes all isomers | : ACGIH (United States) TWA : 300ppm 8 hours OSHA (United States) TWA 500ppm 8 hours. |

9. PHYSICAL AND CHEMICAL PROPERTIES :

| | |
|--------------------------------|---|
| Physical Stage | Liquid |
| Colour | Colourless |
| Odour | Characteristic hydrocarbon solvent odour. |
| Boiling Point/range | 90 - 150°C. |
| Flash Point (Close cup) (°C.) | <3°C. |
| Vapour Density | 3.0(Air = 1) |
| Specific Gravity | 0.70 – 0.75 (Water = 1) |
| pH | NA |
| Solubility in water | Very slightly soluble in cold water. |

10. STABILITY AND REACTIVITY

Conditions to avoid :

Stable under normal conditions.

Substances to avoid :

Keep away from heat, sparks, open flame and Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Toxicity Data

n-Hexane : Long term or repeated exposure to n-hexane can cause peripheral nerve damage. Initial symptoms are numbness of the fingers and toes. Also motor weakness can occur in the digits, but may also involve muscles of the arms, thighs and forearms.

Cyclohexane : Cyclohexane can cause eye, skin and mucous membrane irritation, CNS depressant and narcosis at elevated concentrations.

n-Heptane, n-Octane, n-Nonane, n-Decane, n-Undecane and all isomers :
Not mutagenic and is not considered to be carcinogenic.

12. ECOLOGICAL INFORMATION

Ecotoxicity : Data not available for this product.

13. DISPOSAL CONSIDERATIONS

Place contaminated material in disposable container and dispose of in accordance with Local, State and Federal environmental regulations.

14. TRANSPORT INFORMATION

US DOT Description

Proper Shipping Name : Light White Oil
(Petroleum distillates).
Hazard Class : 3
Packing Group(s) : II
UN/NA Number : UN 1268.
Ground Transportation : Iso containers, Flexi tanks. Tankers.
Sea Transportation : Ship of IMDG Class 3 carrier type.

15. REGULATORY INFORMATION

Clean Water Act : The material is classified as an oil under section 311 of the Clean Water Act(CWA) and the Oil pollution act of 1990(OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into the surface water must be reported to the concerned authorities.

California Proposition 65 : This material may contain Benzene which are known to the State of California to cause cancer, birth defects or other reproductive harm.

1

16. OTHER INFORMATION

Disclaimer of Liability :

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. This MSDS was prepared and is to be used only for this product. If the product is used as component in another product, this MSDS information may not be applicable. Users should make their own investigations to determine the suitability of the information or products for their particular purpose.

The conditions and methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, Damage or expense arising out of or in any way connected with handling, storage use or disposal of the product.