

## SAFETY DATA SHEET

Creation Date 23-Nov-2009

Revision Date 26-Dec-2021

Revision Number 5

### 1. Identification

**Product Name** Petroleum ether, boiling range 80-110°C

**Cat No. :** AC413160000; AC413160020; AC413160050

**CAS No** 64742-49-0

**Synonyms** Ligroine

**Recommended Use** Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

#### Details of the supplier of the safety data sheet

##### Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number** For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|  |            |
|--|------------|
| Flammable liquids                                | Category 2 |
| Skin Corrosion/Irritation                        | Category 2 |
| Serious Eye Damage/Eye Irritation                | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Central nervous system (CNS).    |            |
| Aspiration Toxicity                              | Category 1 |

#### Label Elements

**Signal Word**  
Danger

**Hazard Statements**  
Highly flammable liquid and vapor

May be fatal if swallowed and enters airways  
 Causes skin irritation  
 Causes serious eye irritation  
 May cause drowsiness or dizziness



**Precautionary Statements**

**Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 Keep container tightly closed  
 Ground/bond container and receiving equipment  
 Use explosion-proof electrical/ventilating/lighting equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Keep cool

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell

**Skin**

If skin irritation occurs: Get medical advice/attention  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse

**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: Get medical advice/attention

**Ingestion**

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 Do NOT induce vomiting

**Fire**

In case of fire: Use CO2, dry chemical, or foam for extinction

**Storage**

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

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Toxic to aquatic life  
 Toxic to aquatic life with long lasting effects

**3. Composition/Information on Ingredients**

| Component                               | CAS No     | Weight % |
|---|------------|----------|
| Naphtha (petroleum), hydrotreated light | 64742-49-0 | >95      |

**4. First-aid measures**

|  |   |
|--|---|
| <b>General Advice</b>                      | If symptoms persist, call a physician.  |
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.   |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.   |
| <b>Inhalation</b>                          | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. Risk of serious damage to the lungs (by aspiration).                                   |
| <b>Ingestion</b>                           | Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward. |
| <b>Most important symptoms and effects</b> | None reasonably foreseeable. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting  |
| <b>Notes to Physician</b>                  | Treat symptomatically   |

**5. Fire-fighting measures**

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>     | Water spray, carbon dioxide (CO <sub>2</sub> ), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers. |
| <b>Unsuitable Extinguishing Media</b>   | Water may be ineffective, Do not use a solid water stream as it may scatter and spread fire   |
| <b>Flash Point</b>                      | -9 °C / 15.8 °F   |
| <b>Method -</b>                         | No information available  |
| <b>Autoignition Temperature</b>         | 268 °C / 514.4 °F   |
| <b>Explosion Limits</b>                 |   |
| <b>Upper</b>                            | 8.00 vol %  |
| <b>Lower</b>                            | 0.60 vol %  |
| <b>Sensitivity to Mechanical Impact</b> | No information available  |
| <b>Sensitivity to Static Discharge</b>  | No information available  |

**Specific Hazards Arising from the Chemical**  
 Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Do not allow run-off from fire-fighting to enter drains or water courses.

**Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

|                    |                          |                         |                                |
|--------------------|--------------------------|-------------------------|--------------------------------|
| <b>Health</b><br>3 | <b>Flammability</b><br>3 | <b>Instability</b><br>0 | <b>Physical hazards</b><br>N/A |
|--------------------|--------------------------|-------------------------|--------------------------------|

**6. Accidental release measures**

|                                  |  |
|----------------------------------|--|
| <b>Personal Precautions</b>      | Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. |
| <b>Environmental Precautions</b> | Do not flush into surface water or sanitary sewer system.  |

**Methods for Containment and Clean Up** Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## 7. Handling and storage

**Handling** Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

**Storage.** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area. Incompatible Materials. Strong oxidizing agents.

## 8. Exposure controls / personal protection

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures** Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

### Personal Protective Equipment

**Eye/face Protection** 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 and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** 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.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

|   |                                       |
|---|---------------------------------------|
| <b>Physical State</b>                         | Liquid                                |
| <b>Appearance</b>                             | Colorless                             |
| <b>Odor</b>                                   | Petroleum distillates                 |
| <b>Odor Threshold</b>                         | No information available              |
| <b>pH</b>                                     | No information available              |
| <b>Melting Point/Range</b>                    | -40 °C / -40 °F                       |
| <b>Boiling Point/Range</b>                    | 80 - 110 °C / 176 - 230 °F @ 760 mmHg |
| <b>Flash Point</b>                            | -9 °C / 15.8 °F                       |
| <b>Evaporation Rate</b>                       | > 1 (air = 1.0)                       |
| <b>Flammability (solid,gas)</b>               | Not applicable                        |
| <b>Flammability or explosive limits</b>       |                                       |
| <b>Upper</b>                                  | 8.00 vol %                            |
| <b>Lower</b>                                  | 0.60 vol %                            |
| <b>Vapor Pressure</b>                         | 45 mmHg @ 20°C                        |
| <b>Vapor Density</b>                          | No information available              |
| <b>Specific Gravity</b>                       | 0.725                                 |
| <b>Solubility</b>                             | Insoluble in water                    |
| <b>Partition coefficient; n-octanol/water</b> | No data available                     |
| <b>Autoignition Temperature</b>               | 268 °C / 514.4 °F                     |

**Decomposition Temperature** No information available  
**Viscosity** 0.7 mm<sup>2</sup>/s @ 20°C

### 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Keep away from open flames, hot surfaces and sources of ignition. Incompatible products. Excess heat.

**Incompatible Materials** Strong oxidizing agents

**Hazardous Decomposition Products** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

### 11. Toxicological information

**Acute Toxicity**

**Product Information**  
**Component Information**

| Component                               | LD50 Oral                 | LD50 Dermal                  | LC50 Inhalation              |
|---|---------------------------|------------------------------|------------------------------|
| Naphtha (petroleum), hydrotreated light | LD50 > 5000 mg/kg ( Rat ) | LD50 > 3160 mg/kg ( Rabbit ) | LC50 = 73680 ppm ( Rat ) 4 h |

**Toxicologically Synergistic Products** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** Irritating to eyes and skin

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component                               | CAS No     | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|---|------------|------------|------------|------------|------------|------------|
| Naphtha (petroleum), hydrotreated light | 64742-49-0 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** Central nervous system (CNS)  
**STOT - repeated exposure** None known

**Aspiration hazard** Category 1

**Symptoms / effects, both acute and delayed** Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

The product contains following substances which are hazardous for the environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| Component                               | Freshwater Algae | Freshwater Fish  | Microtox   | Water Flea |
|---|------------------|--|------------|------------|
| Naphtha (petroleum), hydrotreated light | Not listed       | LC50: = 8.41 mg/L, 96h<br>semi-static, closed<br>(Oncorhynchus mykiss) | Not listed | Not listed |

**Persistence and Degradability** Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its volatility.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

UN-No UN3295  
 Proper Shipping Name Hydrocarbons, liquid, n.o.s.  
 Hazard Class 3  
 Packing Group II

**TDG**

UN-No UN3295  
 Proper Shipping Name Hydrocarbons, liquid, n.o.s.  
 Hazard Class 3  
 Packing Group II

**IATA**

UN-No UN3295  
 Proper Shipping Name Hydrocarbons, liquid, n.o.s.  
 Hazard Class 3  
 Packing Group II

**IMDG/IMO**

UN-No UN3295  
 Proper Shipping Name Hydrocarbons, liquid, n.o.s.  
 Hazard Class 3  
 Packing Group II

## 15. Regulatory information

**United States of America Inventory**

| Component                               | CAS No     | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|---|------------|------|---|-----------------------------|
| Naphtha (petroleum), hydrotreated light | 64742-49-0 | X    | ACTIVE  | -                           |

**Legend:**

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export Not applicable

**International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component                               | CAS No     | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|---|------------|-----|------|-----------|-------|------|------|------|-------|----------|
| Naphtha (petroleum), hydrotreated light | 64742-49-0 | X   | -    | 265-151-9 | X     | -    |      | X    | X     | KE-25623 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**U.S. Federal Regulations**

|   |                                    |
|---|------------------------------------|
| <b>SARA 313</b>   | Not applicable                     |
| <b>SARA 311/312 Hazard Categories</b>                       | See section 2 for more information |
| <b>CWA (Clean Water Act)</b>                                | Not applicable                     |
| <b>Clean Air Act</b>  | Not applicable                     |
| <b>OSHA - Occupational Safety and Health Administration</b> | Not applicable                     |
| <b>CERCLA</b>   | Not applicable                     |

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations** Not applicable

**U.S. Department of Transportation**

|                             |   |
|-----------------------------|---|
| Reportable Quantity (RQ):   | N |
| DOT Marine Pollutant        | N |
| DOT Severe Marine Pollutant | N |

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** Serious risk, Grade 3

**Authorisation/Restrictions according to EU REACH**

| Component                               | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances   | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---|---|---|---|
| Naphtha (petroleum), hydrotreated light | -   | Use restricted. See item 28. (see link for restriction details)<br>Use restricted. See item 29. (see link for restriction details)<br>Use restricted. See item 75. (see link for restriction details) | -   |

<https://echa.europa.eu/substances-restricted-under-reach>

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

| Component                               | CAS No     | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|---|------------|----------|------------------------------|---------------------------|--|
| Naphtha (petroleum), hydrotreated light | 64742-49-0 | Listed   | Not applicable               | Not applicable            | Not applicable                             |

| Component                               | CAS No     | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|---|------------|---|--|----------------------------|------------------------------------|
| Naphtha (petroleum), hydrotreated light | 64742-49-0 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

## 16. Other information

**Prepared By** Regulatory Affairs  
Thermo Fisher Scientific  
Email: EMSDS.RA@thermofisher.com

**Creation Date** 23-Nov-2009

**Revision Date** 26-Dec-2021

**Print Date** 26-Dec-2021

**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**