

Creation Date 22-Oct-2012

Revision Date 19-Aug-2026

Revision Number 10

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Description:** Petroleum ether, boiling range 35-60°C  
**Cat No. :** 422990000; 422990050; 422995000  
**Synonyms** Ligroïne

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

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

#### Company

**UK entity/business name**  
Fisher Scientific UK  
Bishop Meadow Road,  
Loughborough, Leicestershire LE11 5RG, United Kingdom

**EU entity/business name**  
Thermo Fisher Scientific  
Janssen Pharmaceuticaaan 3a, 2440 Geel, Belgium

**E-mail address** begel.sdsdesk@thermofisher.com

### 1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **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

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

##### Physical hazards

Flammable liquids Category 2 (H225)

##### Health hazards

Aspiration Toxicity Category 1 (H304)  
Skin Corrosion/Irritation Category 2 (H315)  
Specific target organ toxicity - (single exposure) Category 3 (H336)

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## Environmental hazards

Chronic aquatic toxicity

Category 2 (H411)

Full text of Hazard Statements: see section 16

## 2.2. Label elements



Signal Word

Danger

## Hazard Statements

- H225 - Highly flammable liquid and vapor
- H304 - May be fatal if swallowed and enters airways
- H315 - Causes skin irritation
- H336 - May cause drowsiness or dizziness
- H411 - Toxic to aquatic life with long lasting effects

## Precautionary Statements

- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- P331 - Do NOT induce vomiting
- P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
- P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

## 2.3. Other hazards

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

| Component                                                  | CAS No     | EC No             | Weight % | GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567                           |
|------------------------------------------------------------|------------|-------------------|----------|-------------------------------------------------------------------------------------------------------------------|
| Pentane                                                    | 109-66-0   | EEC No. 203-692-4 | 50       | Flam. Liq. 1 (H224)<br>Asp. Tox. 1 (H304)<br>STOT SE 3 (H336)<br>Aquatic Chronic 2 (H411)                         |
| Hydrocarbons, C6, isoalkanes < 5%<br>n-hexane (Iso-Hexane) | 64742-49-0 | 931-254-9         | 47-50    | Flam. Liq. 2 (H225)<br>Asp. Tox. 1 (H304)<br>Skin Irrit. 2 (H315)<br>STOT SE 3 (H336)<br>Aquatic Chronic 2 (H411) |

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|        |          |                   |    |                                                                                                                                                          |
|--------|----------|-------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hexane | 110-54-3 | EEC No. 203-777-6 | <3 | Flam. Liq. 2 (H225)<br>Asp. Tox. 1 (H304)<br>Skin Irrit. 2 (H315)<br>STOT SE 3 (H336)<br>Repr. 2 (H361f)<br>STOT RE 1 (H372)<br>Aquatic Chronic 2 (H411) |
|--------|----------|-------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------|

| Components                                              | Reach Registration Number |  |
|---------------------------------------------------------|---------------------------|--|
| Pentane                                                 | 01-2119459286-30          |  |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 01-2119484651-34          |  |

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of 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>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>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>Self-Protection of the First Aider</b> | Use personal protective equipment as required.                                                                                                                                                      |

### 4.2. Most important symptoms and effects, both acute and delayed

Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

### 4.3. Indication of any immediate medical attention and special treatment needed

|                           |                                                 |
|---------------------------|-------------------------------------------------|
| <b>Notes to Physician</b> | Treat symptomatically. Symptoms may be delayed. |
|---------------------------|-------------------------------------------------|

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

#### Extinguishing media which must not be used for safety reasons

No information available.

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## **5.2. Special hazards arising from the substance or mixture**

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

### **Hazardous Combustion Products**

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

## **5.3. Advice for firefighters**

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

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

### **6.3. Methods and material for containment and cleaning 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.

### **6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Do not get in eyes, on skin, or on clothing. 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.

### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

### **7.2. Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area.

**Technical Rules for Hazardous Substances (TRGS) 510**  
**Storage Class (LGK) (Germany)**

Class 3

### **7.3. Specific end use(s)**

Use in laboratories

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE** - 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

| Component                                               | The United Kingdom                                                                                                    | European Union                                           | Ireland                                                                                                                   |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Pentane                                                 | STEL: 1800 ppm 15 min<br>STEL: 5400 mg/m <sup>3</sup> 15 min<br>TWA: 600 ppm 8 hr<br>TWA: 1800 mg/m <sup>3</sup> 8 hr | TWA: 1000 ppm (8hr)<br>TWA: 3000 mg/m <sup>3</sup> (8hr) | TWA: 1000 ppm 8 hr.<br>STEL: 3000 ppm 15 min                                                                              |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | RCP Isohexanes, TWA (8 h)<br>250 ppm, 1000 mg/m <sup>3</sup>                                                          |                                                          |                                                                                                                           |
| Hexane                                                  | TWA: 72 mg/m <sup>3</sup><br>TWA: 20 ppm<br>STEL: 60 ppm<br>STEL: 216 mg/m <sup>3</sup>                               | TWA: 20 ppm (8hr)<br>TWA: 72 mg/m <sup>3</sup> (8hr)     | TWA: 20 ppm 8 hr.<br>TWA: 72 mg/m <sup>3</sup> 8 hr.<br>STEL: 60 ppm 15 min<br>STEL: 216 mg/m <sup>3</sup> 15 min<br>Skin |

#### Biological limit values

List source(s):

#### Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

| Component                  | Acute effects local (Dermal) | Acute effects systemic (Dermal) | Chronic effects local (Dermal) | Chronic effects systemic (Dermal) |
|----------------------------|------------------------------|---------------------------------|--------------------------------|-----------------------------------|
| Pentane<br>109-66-0 ( 50 ) |                              |                                 |                                | DNEL = 432mg/kg<br>bw/day         |
| Hexane<br>110-54-3 ( <3 )  |                              |                                 |                                | DNEL = 11mg/kg<br>bw/day          |

| Component                                                                       | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|---------------------------------------------------------------------------------|----------------------------------|-------------------------------------|------------------------------------|---------------------------------------|
| Pentane<br>109-66-0 ( 50 )                                                      |                                  |                                     |                                    | DNEL = 3000mg/m <sup>3</sup>          |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane)<br>64742-49-0 ( 47-50 ) | DNEL = 1066.67mg/m <sup>3</sup>  | DNEL = 1286.4mg/m <sup>3</sup>      | DNEL = 837.5mg/m <sup>3</sup>      |                                       |
| Hexane<br>110-54-3 ( <3 )                                                       |                                  |                                     |                                    | DNEL = 75mg/m <sup>3</sup>            |

#### Predicted No Effect Concentration (PNEC)

See values below.

| Component                  | Fresh water    | Fresh water sediment           | Water Intermittent | Microorganisms in sewage treatment | Soil (Agriculture)          |
|----------------------------|----------------|--------------------------------|--------------------|------------------------------------|-----------------------------|
| Pentane<br>109-66-0 ( 50 ) | PNEC = 230µg/L | PNEC = 1.2mg/kg<br>sediment dw | PNEC = 880µg/L     | PNEC = 3600µg/L                    | PNEC = 0.55mg/kg<br>soil dw |

| Component | Marine water | Marine water sediment | Marine water intermittent | Food chain | Air |
|-----------|--------------|-----------------------|---------------------------|------------|-----|
|-----------|--------------|-----------------------|---------------------------|------------|-----|

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|                            |                |                                |  |  |  |
|----------------------------|----------------|--------------------------------|--|--|--|
| Pentane<br>109-66-0 ( 50 ) | PNEC = 230µg/L | PNEC = 1.2mg/kg<br>sediment dw |  |  |  |
|----------------------------|----------------|--------------------------------|--|--|--|

## 8.2. Exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

**Eye Protection** Wear safety glasses with side shields (or goggles) (European standard - EN 166)

**Hand Protection** Protective gloves

| Glove material | Breakthrough time                 | Glove thickness | EU standard | Glove comments        |
|----------------|-----------------------------------|-----------------|-------------|-----------------------|
| Viton (R)      | See manufacturers recommendations | -               | EN 374      | (minimum requirement) |

**Skin and body protection** Long sleeved clothing.

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use** Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced  
**Recommended Filter type:** low boiling organic solvent Type AX Brown conforming to EN371

**Small scale/Laboratory use** Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.  
**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141  
When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls** Prevent product from entering drains. Do not allow material to contaminate ground water system.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

|                            |                                 |
|----------------------------|---------------------------------|
| <b>Physical State</b>      | Liquid                          |
| <b>Appearance</b>          | Clear                           |
| <b>Odor</b>                | Petroleum distillates           |
| <b>Odor Threshold</b>      | No data available               |
| <b>Melting Point/Range</b> | No data available               |
| <b>Softening Point</b>     | No data available               |
| <b>Boiling Point/Range</b> | 40 - 60 °C / 104 - 140 °F @ 760 |

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|                                         |                                                |                                          |
|-----------------------------------------|------------------------------------------------|------------------------------------------|
| Flammability (liquid)                   | Highly flammable                               | On basis of test data                    |
| Flammability (solid,gas)                | Not applicable                                 | Liquid                                   |
| Explosion Limits                        | <b>Lower</b> 1.1 vol%<br><b>Upper</b> 7.8 vol% |                                          |
| Flash Point                             | -55 °C / -67 °F                                | <b>Method</b> - No information available |
| Autoignition Temperature                | >200 °C                                        |                                          |
| Decomposition Temperature               | No data available                              |                                          |
| pH                                      | No information available                       |                                          |
| Viscosity                               | 0.3 mm <sup>2</sup> /s @ 20°C                  |                                          |
| Water Solubility                        | Insoluble                                      |                                          |
| Solubility in other solvents            | No information available                       |                                          |
| Partition Coefficient (n-octanol/water) |                                                |                                          |
| Component                               | <b>log Pow</b>                                 |                                          |
| Pentane                                 | 3.45                                           |                                          |
| Hexane                                  | 4.11                                           |                                          |
| Vapor Pressure                          | 285 mmHg @ 20°C                                |                                          |
| Density / Specific Gravity              | 0.65                                           |                                          |
| Bulk Density                            | Not applicable                                 | Liquid                                   |
| Vapor Density                           | >1 @ 101kPa                                    | (Air = 1.0)                              |
| Particle characteristics                | Not applicable (liquid)                        |                                          |

## 9.2. Other information

**Explosive Properties** Vapors may form explosive mixtures with air

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity** None known, based on information available

**10.2. Chemical stability** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous Polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions** None under normal processing.

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

**10.5. Incompatible materials** Strong oxidizing agents.

**10.6. Hazardous decomposition products** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Product Information

(a) acute toxicity;  
Oral Based on available data, the classification criteria are not met

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**Dermal**  
**Inhalation**

Based on available data, the classification criteria are not met  
Based on available data, the classification criteria are not met

## Toxicology data for the components

| Component                                               | LD50 Oral                 | LD50 Dermal                  | LC50 Inhalation                         |
|---------------------------------------------------------|---------------------------|------------------------------|-----------------------------------------|
| Pentane                                                 | LD50 > 2000 mg/kg ( Rat ) | LD50 = 3000 mg/kg ( Rabbit ) | LC50 = 364 g/m <sup>3</sup> ( Rat ) 4 h |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | LD50 > 5000 mg/kg ( Rat ) | LD50 > 3160 mg/kg ( Rabbit ) | LC50 = 73680 ppm ( Rat ) 4 h            |
| Hexane                                                  | LD50 = 25 g/kg ( Rat )    | LD50 = 3000 mg/kg ( Rabbit ) | LC50 = 48000 ppm ( Rat ) 4 h            |

(b) skin corrosion/irritation;

Category 2

(c) serious eye damage/irritation;

Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

**Respiratory**  
**Skin**

Based on available data, the classification criteria are not met  
Based on available data, the classification criteria are not met

(e) germ cell mutagenicity;

Based on available data, the classification criteria are not met

(f) carcinogenicity;

Based on available data, the classification criteria are not met

The table below indicates whether each agency has listed any ingredient as a carcinogen. Petroleum products are known to cause cancer because of carcinogenic components (e.g. benzene). These carcinogenic components may be removed during the refinement process. The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen. This note applies only to certain complex oil derived substances in Annex I.

| Component                                               | EU           | UK | Germany | IARC |
|---------------------------------------------------------|--------------|----|---------|------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | Carc Cat. 1B |    |         |      |

(g) reproductive toxicity;

Based on available data, the classification criteria are not met

(h) STOT-single exposure;

Category 3

**Results / Target organs**

Central nervous system (CNS).

(i) STOT-repeated exposure;

Based on available data, the classification criteria are not met

**Target Organs**

No information available.

(j) aspiration hazard;

Category 1

**Symptoms / effects, both acute and delayed**

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

## 11.2. Information on other hazards

**Endocrine Disrupting Properties**

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

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## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicity effects

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

| Component                                                  | Freshwater Fish                                                                                                                                        | Water Flea                                | Freshwater Algae |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------|
| Pentane                                                    | LC50: = 9.99 mg/L, 96h<br>(Lepomis macrochirus)<br>LC50: = 11.59 mg/L, 96h<br>(Pimephales promelas)<br>LC50: = 9.87 mg/L, 96h<br>(Oncorhynchus mykiss) | EC50: = 9.74 mg/L, 48h<br>(Daphnia magna) |                  |
| Hydrocarbons, C6, isoalkanes < 5%<br>n-hexane (Iso-Hexane) | LC50: = 8.41 mg/L, 96h<br>semi-static, closed<br>(Oncorhynchus mykiss)                                                                                 |                                           |                  |
| Hexane                                                     | LC50: 2.1 - 2.98 mg/L, 96h<br>flow-through (Pimephales<br>promelas)                                                                                    | EC50: 3.87 mg/L/48h                       |                  |

### 12.2. Persistence and degradability

#### Persistence

Persistence is unlikely, based on information available.

#### Degradation in sewage treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

### 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

| Component | log Pow | Bioconcentration factor (BCF) |
|-----------|---------|-------------------------------|
| Pentane   | 3.45    | No data available             |
| Hexane    | 4.11    | No data available             |

### 12.4. Mobility in soil

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air.

### 12.5. Results of PBT and vPvB assessment

No data available for assessment.

### 12.6. Endocrine disrupting properties

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

### 12.7. Other adverse effects

#### Persistent Organic Pollutant

This product does not contain any known or suspected substance

#### Ozone Depletion Potential

This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

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|                                            |                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste from Residues/Unused Products</b> | Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.                                                                                                            |
| <b>Contaminated Packaging</b>              | Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.                                          |
| <b>European Waste Catalogue (EWC)</b>      | According to the European Waste Catalog, Waste Codes are not product specific, but application specific.                                                                                                                                                                          |
| <b>Other Information</b>                   | Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not let this chemical enter the environment. Do not empty into drains. |

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

|                                                                 |                                                                        |
|-----------------------------------------------------------------|------------------------------------------------------------------------|
| <b>14.1. UN number or ID number</b>                             | UN3295                                                                 |
| <b>14.2. UN proper shipping name</b><br>Technical Shipping Name | Hydrocarbons, liquid, n.o.s.<br>Petroleum ether, boiling range 35-60°C |
| <b>14.3. Transport hazard class(es)</b>                         | 3                                                                      |
| <b>14.4. Packing group</b>                                      | II                                                                     |

### ADR

|                                                                 |                                                                        |
|-----------------------------------------------------------------|------------------------------------------------------------------------|
| <b>14.1. UN number or ID number</b>                             | UN3295                                                                 |
| <b>14.2. UN proper shipping name</b><br>Technical Shipping Name | Hydrocarbons, liquid, n.o.s.<br>Petroleum ether, boiling range 35-60°C |
| <b>14.3. Transport hazard class(es)</b>                         | 3                                                                      |
| <b>14.4. Packing group</b>                                      | II                                                                     |

### IATA

|                                                                 |                                                                        |
|-----------------------------------------------------------------|------------------------------------------------------------------------|
| <b>14.1. UN number or ID number</b>                             | UN3295                                                                 |
| <b>14.2. UN proper shipping name</b><br>Technical Shipping Name | Hydrocarbons, liquid, n.o.s.<br>Petroleum ether, boiling range 35-60°C |
| <b>14.3. Transport hazard class(es)</b>                         | 3                                                                      |
| <b>14.4. Packing group</b>                                      | II                                                                     |

|                                    |                                                                                                          |
|------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>14.5. Environmental hazards</b> | Dangerous for the environment<br>Product is a marine pollutant according to the criteria set by IMDG/IMO |
|------------------------------------|----------------------------------------------------------------------------------------------------------|

|                                           |                                  |
|-------------------------------------------|----------------------------------|
| <b>14.6. Special precautions for user</b> | No special precautions required. |
|-------------------------------------------|----------------------------------|

|                                                                      |                                |
|----------------------------------------------------------------------|--------------------------------|
| <b>14.7. Maritime transport in bulk according to IMO instruments</b> | Not applicable, packaged goods |
|----------------------------------------------------------------------|--------------------------------|

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

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## International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component                                               | CAS No     | EINECS    | ELINCS    | NLP | IECSC | TCSI | KECL     | ENCS | ISHL |
|---------------------------------------------------------|------------|-----------|-----------|-----|-------|------|----------|------|------|
| Pentane                                                 | 109-66-0   | 203-692-4 | -         | -   | X     | X    | KE-27968 | X    | X    |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | 265-151-9 | -         | -   | X     | X    | KE-25623 | -    | -    |
| Hexane                                                  | 110-54-3   | 203-777-6 | 438-390-3 | -   | X     | X    | KE-18626 | X    | X    |

| Component                                               | CAS No     | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---------------------------------------------------------|------------|------|-----------------------------------------------|-----|------|------|-------|-------|
| Pentane                                                 | 109-66-0   | X    | ACTIVE                                        | X   | -    | X    | X     | X     |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | X    | ACTIVE                                        | X   | -    | X    | X     | X     |
| Hexane                                                  | 110-54-3   | X    | ACTIVE                                        | X   | -    | X    | X     | X     |

Legend: X - Listed '-' - Not Listed

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

## Authorisation/Restrictions according to EU REACH

| Component                                               | CAS No     | 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)                    |
|---------------------------------------------------------|------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Pentane                                                 | 109-66-0   | -                                                                   | -                                                                                                                                                                                                                 | -                                                                                                                        |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | -                                                                   | Use restricted. See entry 28.<br>(see link for restriction details)<br>Use restricted. See entry 29.<br>(see link for restriction details)<br>Use restricted. See entry 75.<br>(see link for restriction details) | -                                                                                                                        |
| Hexane                                                  | 110-54-3   | -                                                                   | Use restricted. See entry 75.<br>(see link for restriction details)                                                                                                                                               | SVHC candidate list - EC 203-777-6 - Specific target organ toxicity after repeated exposure Article 57(f) - human health |

## REACH links

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

<https://echa.europa.eu/candidate-list-table>

## Seveso III Directive (2012/18/EC)

| 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 |
|---------------------------------------------------------|------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Pentane                                                 | 109-66-0   | Not applicable                                                                            | Not applicable                                                                           |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | 2500 tonne                                                                                | 25000 tonne                                                                              |
| Hexane                                                  | 110-54-3   | Not applicable                                                                            | Not applicable                                                                           |

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

| Component | CAS No   | OECD HPV | Restriction of Hazardous Substances (RoHS) | Basel Convention (Hazardous Waste) |
|-----------|----------|----------|--------------------------------------------|------------------------------------|
| Pentane   | 109-66-0 | Listed   | Not applicable                             | Not applicable                     |

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|                                                         |            |        |                |                |
|---------------------------------------------------------|------------|--------|----------------|----------------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | Listed | Not applicable | Not applicable |
| Hexane                                                  | 110-54-3   | Listed | Not applicable | Annex I - Y42  |

**Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals**

Not applicable

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

## National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

## WGK Classification

Water endangering class = 2 (self classification)

| Component                                               | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|---------------------------------------------------------|---------------------------------------|-------------------------|
| Pentane                                                 | WGK2                                  |                         |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | WGK2                                  |                         |
| Hexane                                                  | WGK3                                  |                         |

| Component                                               | France - INRS (Tables of occupational diseases)             |
|---------------------------------------------------------|-------------------------------------------------------------|
| Pentane                                                 | Tableaux des maladies professionnelles (TMP) - RG 84        |
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | Tableaux des maladies professionnelles (TMP) - RG 84        |
| Hexane                                                  | Tableaux des maladies professionnelles (TMP) - RG 59, RG 84 |

| Component                  | Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81) | Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC) | Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure |
|----------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Pentane<br>109-66-0 ( 50 ) | Prohibited and Restricted Substances                                                                           | Group I                                                                         |                                                                                             |
| Hexane<br>110-54-3 ( <3 )  | Prohibited and Restricted Substances                                                                           | Group I                                                                         |                                                                                             |

## 15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H336 - May cause drowsiness or dizziness

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H361f - Suspected of damaging fertility  
H411 - Toxic to aquatic life with long lasting effects  
H224 - Extremely flammable liquid and vapor  
H225 - Highly flammable liquid and vapor

## Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer  
Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

## Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadviser - LOLI, Merck index, RTECS

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

## Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

**Physical hazards** On basis of test data

**Health Hazards** Calculation method

**Environmental hazards** Calculation method

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Chemical incident response training.

**Creation Date** 22-Oct-2012

**Revision Date** 19-Aug-2026

**Revision Summary**

**This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.**

## 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

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**End of Safety Data Sheet**