

Creation Date 25-Aug-2010

Revision Date 22-Sep-2023

Revision Number 15

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

### 1.1. Product identifier

|                                  |  |
|----------------------------------|--|
| <b>Product Description:</b>      | <b>Cyclohexanone</b>   |
| <b>Cat No. :</b>                 | <b>111190000; 111190010; 111190025; 111190250; 111190251</b> |
| <b>Synonyms</b>                  | Ketohexamethylene; Pimelic ketone.                           |
| <b>Index No</b>                  | 606-010-00-7   |
| <b>CAS No</b>                    | 108-94-1   |
| <b>EC No</b>                     | 203-631-1  |
| <b>Molecular Formula</b>         | C <sub>6</sub> H <sub>10</sub> O                             |
| <b>REACH registration number</b> | 01-2119453616-35   |

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

|                                       |   |
|---------------------------------------|---|
| <b>Recommended Use</b>                | Laboratory chemicals.   |
| <b>Sector of use</b>                  | SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites    |
| <b>Product category</b>               | PC21 - Laboratory chemicals   |
| <b>Process categories</b>             | PROC15 - Use as a laboratory reagent  |
| <b>Environmental release category</b> | ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates) |
| <b>Uses advised against</b>           | 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

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

**Physical hazards**

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Flammable liquids

Category 3 (H226)

## Health hazards

Acute oral toxicity

Category 4 (H302)

Acute dermal toxicity

Category 4 (H312)

Acute Inhalation Toxicity - Vapors

Category 4 (H332)

Skin Corrosion/Irritation

Category 2 (H315)

Serious Eye Damage/Eye Irritation

Category 1 (H318)

## Environmental hazards

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

## 2.2. Label elements



Signal Word

Danger

## Hazard Statements

H226 - Flammable liquid and vapor

H315 - Causes skin irritation

H318 - Causes serious eye damage

H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled

## Precautionary Statements

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P310 - Immediately call a POISON CENTER or doctor/physician

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

## 2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

Toxicity to Soil Dwelling Organisms

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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## 3.1. Substances

| Component     | CAS No   | EC No             | Weight % | CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567   |
|---------------|----------|-------------------|----------|---|
| Cyclohexanone | 108-94-1 | EEC No. 203-631-1 | >95      | Flam. Liq. 3 (H226)<br>Acute Tox. 4 (H302)<br>Acute Tox. 4 (H312)<br>Acute Tox. 4 (H332)<br>Eye Dam. 1 (H318)<br>Skin Irrit. 2 (H315) |

|                           |                  |
|---------------------------|------------------|
| REACH registration number | 01-2119453616-35 |
|---------------------------|------------------|

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. Immediate medical attention is required.                |
| <b>Skin Contact</b>                       | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.  |
| <b>Ingestion</b>                          | Clean mouth with water and drink afterwards plenty of water.   |
| <b>Inhalation</b>                         | Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.   |
| <b>Self-Protection of the First Aider</b> | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. |

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

Difficulty in breathing. Causes eye burns. Causes severe eye damage. Symptoms of overexposure may be 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

Water may be ineffective. Do not use a solid water stream as it may scatter and spread fire.

### 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.

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## 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

Should not be released into the environment. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

### 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. Take precautionary measures against static discharges.

### 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. Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment.

### 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      Class 3  
Storage Class (LGK) (Germany)

### 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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## 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  |
|---------------|--|--|--|
| Cyclohexanone | STEL: 20 ppm 15 min<br>STEL: 82 mg/m <sup>3</sup> 15 min<br>TWA: 10 ppm 8 hr<br>TWA: 41 mg/m <sup>3</sup> 8 hr<br>Skin | TWA: 10 ppm (8h)<br>TWA: 40.8 mg/m <sup>3</sup> (8h)<br>STEL: 20 ppm (15min)<br>STEL: 81.6 mg/m <sup>3</sup> (15min)<br>Skin | TWA: 10 ppm 8 hr.<br>TWA: 40.8 mg/m <sup>3</sup> 8 hr.<br>STEL: 20 ppm 15 min<br>STEL: 81.6 mg/m <sup>3</sup> 15 min<br>Skin |

### Biological limit values

List source(s): **UK** - Biological Monitoring Guidance Values provided by the UK's Health and Safety Executive (HSE) Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended) and EH40/2005.

| Component     | United Kingdom  | European Union |
|---------------|---|----------------|
| Cyclohexanone | Cyclohexanol: 2 mmol/mol creatinine urine<br>post shift |                |

### 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) |
|-----------------------------------|------------------------------|---------------------------------|--------------------------------|-----------------------------------|
| Cyclohexanone<br>108-94-1 ( >95 ) |                              | DNEL = 4mg/kg bw/day            |                                | DNEL = 4mg/kg bw/day              |

| Component                         | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|---------------------------------------|
| Cyclohexanone<br>108-94-1 ( >95 ) | DNEL = 80mg/m <sup>3</sup>       | DNEL = 80mg/m <sup>3</sup>          | DNEL = 40mg/m <sup>3</sup>         | DNEL = 40mg/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)         |
|-----------------------------------|-------------------|-------------------------------|--------------------|------------------------------------|----------------------------|
| Cyclohexanone<br>108-94-1 ( >95 ) | PNEC = 0.0329mg/L | PNEC = 0.249mg/kg sediment dw | PNEC = 0.329mg/L   | PNEC = 10mg/L                      | PNEC = 0.0304mg/kg soil dw |

| Component                         | Marine water       | Marine water sediment          | Marine water intermittent | Food chain | Air |
|-----------------------------------|--------------------|--------------------------------|---------------------------|------------|-----|
| Cyclohexanone<br>108-94-1 ( >95 ) | PNEC = 0.00329mg/L | PNEC = 0.0249mg/kg sediment dw |                           |            |     |

## 8.2. Exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or

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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

Goggles (European standard - EN 166)

### Hand Protection

Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments   |
|----------------|-------------------|-----------------|-------------|--|
| Butyl rubber   | > 480 minutes     | 0.35 mm         | Level 6     | As tested under EN374-3 Determination of Resistance to Permeation by Chemicals |
| Viton (R)      | > 480 minutes     | 0.70 mm         | EN 374      |  |
| Nitrile rubber |                   |                 |             |  |
| Neoprene       | < 100 minutes     | 0.45 mm         |             |  |
| Nitrile rubber | < 60 minutes      | 0.38 mm         |             |  |

### 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 compatibility, 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:** Organic gases and vapours filter Type A Brown conforming to EN14387

### 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

#### Physical State

Liquid

#### Appearance

Colorless

#### Odor

Mint-like

#### Odor Threshold

0.12 ppm

#### Melting Point/Range

-47 °C / -52.6 °F

#### Softening Point

No data available

#### Boiling Point/Range

155 °C / 311 °F

#### Flammability (liquid)

Flammable

@ 760 mmHg

#### Flammability (solid,gas)

Not applicable

On basis of test data

#### Explosion Limits

**Lower** 1.1 vol%

Liquid

**Upper** 8.1 vol%

#### Flash Point

46 °C / 114.8 °F

**Method -** CC (closed cup)

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|   |                          |             |
|---|--------------------------|-------------|
| Autoignition Temperature                | 520 - °C / 968 - °F      |             |
| Decomposition Temperature               | No data available        |             |
| pH                                      | No information available |             |
| Viscosity                               | 2.2 mPas @ 20°C          |             |
| Water Solubility                        | Soluble                  |             |
| Solubility in other solvents            | No information available |             |
| Partition Coefficient (n-octanol/water) |                          |             |
| Component                               | log Pow                  |             |
| Cyclohexanone                           | 0.86                     |             |
| Vapor Pressure                          | 4.5 mbar @ 20 °C         |             |
| Density / Specific Gravity              | 0.947                    |             |
| Bulk Density                            | Not applicable           | Liquid      |
| Vapor Density                           | 3.4                      | (Air = 1.0) |
| Particle characteristics                | Not applicable (liquid)  |             |

## 9.2. Other information

|                      |  |
|----------------------|--|
| Molecular Formula    | C6 H10 O                               |
| Molecular Weight     | 98.14                                  |
| Explosive Properties | explosive air/vapour mixtures possible |

## 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. Strong acids. . Strong bases.

### 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       | Category 4 |
| Dermal     | Category 4 |
| Inhalation | Category 4 |

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------|-----------|-------------|-----------------|
|-----------|-----------|-------------|-----------------|

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|               |                           |                             |                             |
|---------------|---------------------------|-----------------------------|-----------------------------|
| Cyclohexanone | LD50 = 1544 mg/kg ( Rat ) | LD50 = 947 mg/kg ( Rabbit ) | LC50 > 6.2 mg/L ( Rat ) 4 h |
|---------------|---------------------------|-----------------------------|-----------------------------|

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 1

(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

(g) reproductive toxicity;

Based on available data, the classification criteria are not met

(h) STOT-single exposure;

Based on available data, the classification criteria are not met

(i) STOT-repeated exposure;

Based on available data, the classification criteria are not met

Target Organs

None known.

(j) aspiration hazard;

Based on available data, the classification criteria are not met

Symptoms / effects, both acute and delayed

Symptoms of overexposure may be 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.

## 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 |
|---------------|-------------------------------------|------------|------------------|
| Cyclohexanone | Leusiscus idus: LC50>500mg/L<br>48h |            |                  |

| Component     | Microtox  | M-Factor |
|---------------|---|----------|
| Cyclohexanone | EC50 = 18.5 mg/L 5 min<br>EC50 = 21.3 mg/L 10 min<br>EC50 = 25 mg/L 5 min |          |



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|  |  |
|--|--|
| <b>12.2. Persistence and degradability</b>   | Readily biodegradable  |
| <b>Persistence</b>                           | based on information available, May persist.   |
| <b>Degradation in sewage treatment plant</b> | Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants. |

**12.3. Bioaccumulative potential** May have some potential to bioaccumulate

| Component     | log Pow | Bioconcentration factor (BCF) |
|---------------|---------|-------------------------------|
| Cyclohexanone | 0.86    | No data available             |

**12.4. Mobility in soil** The product is insoluble and floats on water The product is water soluble, and may spread in water systems The product evaporates slowly Is not likely mobile in the environment due to its low water solubility. Will likely be mobile in the environment due to its water solubility. Disperses rapidly in air: Highly mobile in soils: Spillage unlikely to penetrate soil

**12.5. Results of PBT and vPvB assessment** Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

**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

**Waste from Residues/Unused Products** 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.

**Contaminated Packaging** 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.

**European Waste Catalogue (EWC)** According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

**Other Information** 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 empty into drains.

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

**14.1. UN number** UN1915  
**14.2. UN proper shipping name** CYCLOHEXANONE  
**14.3. Transport hazard class(es)** 3  
**14.4. Packing group** III

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## ADR

14.1. UN number UN1915  
14.2. UN proper shipping name CYCLOHEXANONE  
14.3. Transport hazard class(es) 3  
14.4. Packing group III

## IATA

14.1. UN number UN1915  
14.2. UN proper shipping name CYCLOHEXANONE  
14.3. Transport hazard class(es) 3  
14.4. Packing group III

14.5. Environmental hazards No hazards identified  
14.6. Special precautions for user No special precautions required.  
14.7. Maritime transport in bulk according to IMO instruments Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

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

#### 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 |
|---------------|----------|-----------|--------|-----|-------|------|----------|------|------|
| Cyclohexanone | 108-94-1 | 203-631-1 | -      | -   | X     | X    | KE-09188 | X    | X    |

| Component     | CAS No   | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---------------|----------|------|---|-----|------|------|-------|-------|
| Cyclohexanone | 108-94-1 | 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

Not applicable

| 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) |
|---------------|----------|---|---|---|
| Cyclohexanone | 108-94-1 | -   | -   | -   |

#### 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 |
|---------------|----------|---|--|
| Cyclohexanone | 108-94-1 | Not applicable  | Not applicable   |

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

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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** See table for values

| Component     | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|---------------|---------------------------------------|-------------------------|
| Cyclohexanone | WGK1                                  |                         |

| Component     | France - INRS (Tables of occupational diseases)      |
|---------------|--|
| Cyclohexanone | Tableaux des maladies professionnelles (TMP) - 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 |
|-----------------------------------|--|---|---|
| Cyclohexanone<br>108-94-1 ( >95 ) |  | Group I   |   |

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

## SECTION 16: OTHER INFORMATION

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

H226 - Flammable liquid and vapor  
H302 - Harmful if swallowed  
H312 - Harmful in contact with skin  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H332 - Harmful if inhaled

### 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/NDSL** - 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

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**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

**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)

## Key literature references and sources for data

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

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

## 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.

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

## Disclaimer

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**End of Safety Data Sheet**