# SAFETY DATA SHEET

**Issue Date** 25-Nov-2025
Revision Number 2.06

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

**Product identifier**
**Product Name** 2-Methylcyclohexanone
**Other means of identification**
**Product Code(s)** 134-02293

**Recommended use of the chemical and restrictions on use**
**Recommended Use** For research use only.
**Uses advised against** Seek expert judgment when using for purposes other than those recommended.

**Details of the supplier of the safety data sheet**

**Manufacturer Address**
FUJIFILM Wako Pure Chemical Corporation
1-2, Doshomachi 3-Chome,
Chuo-ku Osaka 540-8605, Japan
Tel : +81-6-6203-3741
Fax: +81-6-6201-5964

**Distributor**
FUJIFILM Irvine Scientific
E. Warner Avenue, Santa Ana, CA 92705-5505, U.S.A.: +1 949 261 7800
Fax: +1 949 261 6522

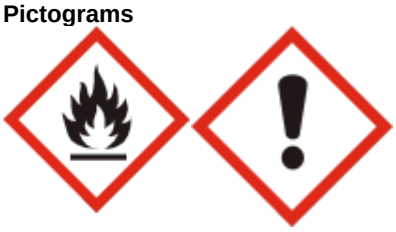
## 2. HAZARDS IDENTIFICATION

**GHS classification**
**Classification of the substance or mixture**

| | |
|---|---|
| **Flammable liquids** | Category 3 |
| **Acute toxicity - Oral** | Category 4 |
| **Acute toxicity - Dermal** | Category 4 |
| **Acute toxicity - Inhalation (Vapors)** | Category 4 |
| **Serious eye damage/eye irritation** | Category 2A |
| **Specific target organ toxicity (single exposure)** | Category 3 |

**Category 3** Respiratory irritation, Narcotic effects

**Pictograms**



**Signal word** Warning

**Hazard statements**
H226 - Flammable liquid and vapour
H319 - Causes serious eye irritation
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness

**Precautionary statements-(Prevention)**
Do not eat, drink or smoke when using this product Wash face, hands and any exposed skin thoroughly after handling Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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 Wear protective gloves/protective clothing/eye protection/face protection Keep cool

**Precautionary statements-(Response)**

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

Call a POISON CENTER or doctor/physician if you feel unwell Wash contaminated clothing before reuse IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

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

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth

In case of fire: Use suitable extinguishing media for extinction

**Precautionary statements-(Storage)**

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

**Precautionary statements-(Disposal)**

Dispose of contents/container to an approved waste disposal plant

**Others**

**Other hazards** Not available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Substance

**Formula** CH3C6H9O

| Chemical Name | Molecular weight | CAS RN | Weight-% |
|---|---|---|---|
| 2-Methylcyclohexanone | 112.17 | 583-60-8 | 95.0 |

**Impurities and/or Additives：** Not applicable

## 4. FIRST AID MEASURES

**First aid measures**

**General Information** Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact** Wash skin with soap and water.

**Inhalation** Remove to fresh air.

**Ingestion** Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing media**

Carbon dioxide (CO2). Foam. Extinguishing powder. Sand.

**Specific hazards arising from the chemical**
Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixtures with air.

**Explosion data**

| | |
|---|---|
| **Sensitivity to Mechanical Impact** | none. |
| **Sensitivity to Static Discharge** | none. |

**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.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

| | |
|---|---|
| **Personal precautions, protective equipment and emergency procedures** | Ensure adequate ventilation, especially in confined areas. |

**Environmental precautions**

| | |
|---|---|
| **Environmental precautions** | See Section 12 for additional ecological information. |

**Methods and material for containment and cleaning up**

| | |
|---|---|
| **Methods and material for containment and cleaning up** | Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed. |
| **Methods for cleaning up** | Pick up and transfer to properly labeled containers. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Soak up with inert absorbent material. |

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

| | |
|---|---|
| Technical measures | Keep away from heat/sparks/open flames/hot surfaces. - No smoking.Use with local exhaust ventilation. |
| **Protective measures** | Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. |

**Conditions for safe storage, including any incompatibilities**

| | |
|---|---|
| **Storage conditions** | Keep container protect from light, store<br>in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Packed with an inert gas. |
| **Packaging materials** | Glass. |
| **Incompatible materials** | Strong oxidizing agents. |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

**Exposure limits** Not applicable

| Chemical Name | ACGIH | OSHA PEL | NIOSH IDLH |
|---|---|---|---|
| 2-Methylcyclohexanone<br>583-60-8 | TWA: 20 ppm | TWA: 100 ppm<br>TWA: 460 mg/m$^3$<br>(vacated) TWA: 50 ppm<br>(vacated) TWA: 230 mg/m$^3$<br>(vacated) STEL: 75 ppm<br>(vacated) STEL: 345 mg/m$^3$<br>(vacated) S*<br>S* | IDLH: 600 ppm<br>TWA: 50 ppm<br>TWA: 230 mg/m$^3$<br>STEL: 75 ppm<br>STEL: 345 mg/m$^3$ |

**Personal protective equipment**

**Respiratory protection** gas mask for organic gas ( JIS T 8152 )
**Hand protection** chemical protective gloves ( JIS T 8116 )
**Eye protection** protective eyeglasses or chemical safety goggles (JIS T 8147)
**Skin and body protection** Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form**

| | |
|---|---|
| **Color** | Colorless - slight yellow |
| **Turbidity** | clear |
| **Appearance** | liquid |
| **Odor** | characteristic odor |
| **pH** | no data available |
| **Melting point/freezing point** | -14 °C |
| **Boiling point, initial boiling point and boiling range** | 165 °C |
| **Flash point** | 47 °C |
| **Evaporation rate:** | no data available |
| **Flammability (solid, gas):** | no data available |
| **Upper/lower flammability or explosive limits** | |
| **Upper:** | no data available |
| **Lower:** | 1.15% |
| **Vapour pressure** | no data available |
| **Vapour density** | 3.9 (air=1) |
| **Specific Gravity / Relative density** | 0.923 - 0.929 g/mL |
| **Solubilities** | water : practically insoluble,or insoluble . Ethanol , acetone : miscible . |
| **n-Octanol/water partition coefficient:(log Pow)** | no data available |
| **Auto-ignition temperature:** | no data available |
| **Decomposition temperature:** | no data available |
| **Viscosity (coefficient of viscosity)** | no data available |
| **Dynamic viscosity** | no data available |
| **Particle characteristics** | no data available |

## 10. STABILITY AND REACTIVITY

**Stability**

**Chemical stability** May be altered by light.
**Reactivity** no data available

**Hazardous reactions**

None under normal processing

**Conditions to avoid**

Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**

Carbon monooxide (CO), Carbon dioxide (CO2)

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| 2-Methylcyclohexanone | 2.14 mL/kg ( Rat ) | 1.77 mL/kg ( Rabbit ) | N/A |

| Chemical Name | Acute toxicity -oral- source information | Acute toxicity -dermal- source information | Acute toxicity -inhalation gas- source information |
|---|---|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. |

| Chemical Name | Acute toxicity -inhalation vapor- source information | Acute toxicity -inhalation dust- source information | Acute toxicity -inhalation mist- source information |
|---|---|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. |

**Skin irritation/corrosion**

| Chemical Name | Skin corrosion/irritation source information |
|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. |

**Serious eye damage/ irritation**

| Chemical Name | Serious eye damage/irritation source information |
|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. |

**Respiratory or skin sensitization**

| Chemical Name | Respiratory or Skin sensitization source information |
|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. |

**Reproductive cell mutagenicity**

| Chemical Name | germ cell mutagencity source information |
|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. |

**Carcinogenicity**

| Chemical Name | Carcinogenicity source information |
|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. |

**Reproductive toxicity**

| Chemical Name | Reproductive toxicity source information |
|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. |

**STOT-single exposure**

| Chemical Name | STOT -single exposure- source information |
|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. |

**STOT-repeated exposure**

| Chemical Name | STOT -repeated exposure- source information |
|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. |

**Aspiration hazard**

| Chemical Name | Aspiration Hazard source information |
|---|---|
| 2-Methylcyclohexanone | Based on the NITE GHS classification results. |

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to | Crustacea |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| | | | **microorganisms** | |
| 2-Methylcyclohexanone<br>583-60-8 | N/A | N/A | N/A | EC50 : Daphnia magna<br>377 mg/L 24 h |

**Persistence and degradability**
No information available

**Bioaccumulative potential**
No information available

**Mobility**
no data available

**Mobility in soil** No information available
**Other Data** No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Precautionary including method of disposing contaminated packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

**DOT**
**UN/ID No** UN2297
**Proper shipping name:** Methylcyclohexanone
**UN classfication** 3
**Subsidiary hazard class**
**Packing group** III
**Marine pollutant** Not applicable

**IATA**
**UN/ID No** UN2297
**Proper shipping name:** Methylcyclohexanone
**UN classfication** 3
**Subsidiary hazard class**
**Packing group** III
**Environmentally Hazardous Substance** Not applicable

**IMDG**
**UN/ID No** UN2297
**Proper shipping name:** Methylcyclohexanone
**UN classfication** 3
**Subsidiary hazard class**
**Packing group** III
**Marine pollutant (Sea)** Not applicable

## 15. REGULATORY INFORMATION

**US Federal Regulations**

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain

any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | CAS RN | Weight-% | SARA 313 - Threshold Values % |
|---|---|---|---|
| 2-Methylcyclohexanone - 583-60-8 | 583-60-8 | 95.0 | N/A |

**SARA 311/312 Hazard Categories**

| | |
|---|---|
| **Acute health hazard** | Yes |
| **Chronic Health Hazard** | No |
| **Fire hazard** | Yes |
| **Sudden release of pressure hazard** | No |
| **Reactive Hazard** | No |

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

## US State Regulations

**California Proposition 65**

This product does not contain any chemicals regulated by Proposition 65

**U.S. State Right-to-Know Regulations**

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| 2-Methylcyclohexanone<br>583-60-8 | X | X | X |

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

## 16. OTHER INFORMATION

**Issue Date** 25-Nov-2025

**Revision Note**

No information available

**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 Safety Data Sheet**