

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Revision date** 12-Sep-2024  
 Revision Number 1.08

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

|                     |                      |
|---------------------|----------------------|
| <b>Product Name</b> | Methyl Chloroacetate |
| <b>Product Code</b> | 139-02162,133-02165  |

**Supplier** FUJIFILM Wako Pure Chemical Corporation  
 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan  
 Phone: +81-6-6203-3741  
 Fax: +81-6-6203-2029

**Emergency telephone number** +81-6-6203-3741 / +81-3-3270-8571

**Recommended uses** For research use only

**Restrictions on use** Seek expert judgment when using for purposes other than those recommended.

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

## Classification of the substance or mixture

## Flammable liquids

Category 3

## Acute toxicity - Oral

Category 3

## Acute toxicity - Dermal

Category 2

## Acute toxicity - Inhalation (Vapors)

Category 2

## Skin corrosion/irritation

Category 1

## Serious eye damage/eye irritation

Category 1

## Skin sensitization

Category 1

## Specific target organ toxicity (single exposure)

Category 2, Category 3

Category 2 systemic toxicity

Category 3 Respiratory irritation

## Acute aquatic toxicity

Category 2

## Chronic aquatic toxicity

Category 2

## Pictograms



## Signal word

Danger

## Hazard statements

H226 - Flammable liquid and vapour  
 H314 - Causes severe skin burns and eye damage  
 H318 - Causes serious eye damage  
 H301 - Toxic if swallowed  
 H310 - Fatal in contact with skin  
 H330 - Fatal if inhaled  
 H335 - May cause respiratory irritation  
 H317 - May cause an allergic skin reaction  
 H401 - Toxic to aquatic life  
 H411 - Toxic to aquatic life with long lasting effects  
 H371 - May cause damage to the following organs: systemic toxicity

**Precautionary statements-(Prevention)**

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Do not get in eyes, on skin, or on clothing
- Wear protective gloves/protective clothing/eye protection/face protection
- Do not breathe dust/fume/gas/mist/vapors/spray
- Contaminated work clothing should not be allowed out of the workplace
- Use only outdoors or in a well-ventilated area
- Avoid release to the environment
- 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
- 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
- Immediately call a POISON CENTER or doctor/physician
- Wash contaminated clothing before reuse
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- If skin irritation or rash occurs: Get medical advice/attention
- 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: Immediately call a POISON CENTER or doctor/physician
- Rinse mouth
- Do NOT induce vomiting
- In case of fire: Use suitable extinguishing media for extinction
- Collect spillage

**Precautionary statements-(Storage)**

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

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

**Other hazards** Not available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Substance

**Formula** ClCH<sub>2</sub>COOCH<sub>3</sub>

| Chemical Name        | Weight-% | Molecular weight | ENCS     | ISHL No. | CAS RN  |
|----------------------|----------|------------------|----------|----------|---------|
| Methyl chloroacetate | 95.0     | 108.52           | (2)-1149 | *        | 96-34-4 |

**Note on ISHL No.:** \* in the table means announced chemical substances.

### Section 4: FIRST AID MEASURES

**Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. Immediate medical attention is required.

**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.

**Protection of first-aiders**

Use personal protective equipment as required.

## Section 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Water spray (fog), Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder, Sand

**Unsuitable extinguishing media**

No information available

**Specific hazards arising from the chemical product**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixtures with air

**Special extinguishing method**

No information available

**Special protective actions for fire-fighters**

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

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

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

**Environmental precautions**

To be careful not discharged to the environment without being properly handled waste water contaminated.

**Methods and materials for contaminant and methods and materials for cleaning up**

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

**Recovery, neutralization**

No information available

**Secondary disaster prevention measures**

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

**Handling****Technical measures**

Highly flammable. Avoid contact with high temperature objects, spark, and strong oxidizing agents. Use with local exhaust ventilation.

**Precautions**

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

**Safety handling precautions**

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**Storage****Safe storage conditions****Storage conditions**

Store away from sunlight in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Store locked up.

|                         |                         |
|-------------------------|-------------------------|
| Safe packaging material | Glass                   |
| Incompatible substances | Strong oxidizing agents |

## Section 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

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### 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.

If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### Form

|            |                            |
|------------|----------------------------|
| Color      | Colorless - slightly brown |
| Turbidity  | clear                      |
| Appearance | liquid                     |

### Odor

Pungent odor, Lachrymator

### Melting point/freezing point

-33 °C

### Boiling point, initial boiling point and boiling range

130 °C

### Flammability

Flammable liquid and vapor

### Evaporation rate:

no data available

### Flammability (solid, gas):

no data available

### Upper/lower flammability or explosive limits

#### Upper:

18.5 Vol%

#### Lower:

7.5 vol%

### Flash point

51 °C

### Auto-ignition temperature:

no data available

### Decomposition temperature:

no data available

### pH

no data available

### Viscosity (coefficient of viscosity)

no data available

### Dynamic viscosity

no data available

### Solubilities

Ethanol and acetone : Very soluble. water : practically insoluble, or insoluble .

### n-Octanol/water partition coefficient:(log Pow)

no data available

### Vapour pressure

no data available

### Specific Gravity / Relative density

1.232 - 1.238 g/mL

### Vapour density

3.77

### Particle characteristics

no data available

## Section 10: STABILITY AND REACTIVITY

### Stability

#### Reactivity

no data available

#### Chemical stability

Stable under recommended storage conditions.

**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 monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Halides**Section 11: TOXICOLOGICAL INFORMATION**

\*NITE: National Institute of Technology and Evaluation (JAPAN)

[https://www.chem-info.nite.go.jp/en/chem/chrip/chrip\\_search/srhInput](https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput)**Acute toxicity**

| Chemical Name        | Oral LD50           | Dermal LD50           | Inhalation LC50                         |
|----------------------|---------------------|-----------------------|-----------------------------------------|
| Methyl chloroacetate | = 107 mg/kg ( Rat ) | = 136.6 mg/kg ( Rat ) | 638 - 957 mg/m <sup>3</sup> ( Rat ) 4 h |

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

**Serious eye damage/ irritation**

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

**Respiratory or skin sensitization**

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

**Reproductive cell mutagenicity**

| Chemical Name        | germ cell mutagenicity source information     |
|----------------------|-----------------------------------------------|
| Methyl chloroacetate | Based on the NITE GHS classification results. |

**Carcinogenicity**

| Chemical Name        | Carcinogenicity source information            |
|----------------------|-----------------------------------------------|
| Methyl chloroacetate | Based on the NITE GHS classification results. |

**Reproductive toxicity**

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

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Section 12: ECOLOGICAL INFORMATION**

\*NITE: National Institute of Technology and Evaluation (JAPAN)

[https://www.chem-info.nite.go.jp/en/chem/chrip/chrip\\_search/srhInput](https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput)

**Ecotoxicity**

| Chemical Name        | Algae/aquatic plants | Fish                                             | Crustacea                                   |
|----------------------|----------------------|--------------------------------------------------|---------------------------------------------|
| Methyl chloroacetate | N/A                  | LC50: <i>Brachydanio rerio</i><br>1.13 mg/L 96 h | EC50: <i>Daphnia magna</i><br>5.5 mg/L 24 h |

**Other data**

| Chemical Name        | Short-term (acute) hazardous to the aquatic environment source information | Long-term (chronic) hazardous to the aquatic environment source information |
|----------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Methyl chloroacetate | Based on the NITE GHS classification results.                              | Based on the NITE GHS classification results.                               |

|                               |                          |
|-------------------------------|--------------------------|
| Persistence and degradability | No information available |
| Bioaccumulative potential     | No information available |
| Mobility in soil              | No information available |
| Hazard to the ozone layer     | No information available |

**Section 13: DISPOSAL CONSIDERATIONS****Waste from residues**

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

**Contaminated container and contaminated packaging**

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

**Section 14: TRANSPORT INFORMATION****ADR/RID**

|                         |                      |
|-------------------------|----------------------|
| UN number               | UN2295               |
| Proper shipping name:   | Methyl Chloroacetate |
| UN classification       | 6.1                  |
| Subsidiary hazard class | 3                    |
| Packing group           | I                    |
| Marine pollutant        | Yes                  |

**IMDG**

|                                                                          |                          |
|--------------------------------------------------------------------------|--------------------------|
| UN number                                                                | UN2295                   |
| Proper shipping name:                                                    | Methyl Chloroacetate     |
| UN classification                                                        | 6.1                      |
| Subsidiary hazard class                                                  | 3                        |
| Packing group                                                            | I                        |
| Marine pollutant (Sea)                                                   | Yes                      |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | No information available |

**IATA**

|                                     |                      |
|-------------------------------------|----------------------|
| Forbidden                           |                      |
| UN number                           | UN2295               |
| Proper shipping name:               | Methyl Chloroacetate |
| UN classification                   | 6.1                  |
| Subsidiary hazard class             | 3                    |
| Packing group                       |                      |
| Environmentally Hazardous Substance | Yes                  |

**Section 15: REGULATORY INFORMATION****Japanese regulations**

|                  |                                                     |
|------------------|-----------------------------------------------------|
| Fire Service Act | Category IV, Class II petroleums, dangerous grade 3 |
|------------------|-----------------------------------------------------|

|                                                                            |                                                                                                                                             |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Poisonous and Deleterious Substances Control Law</b>                    | Poisonous Substances 2nd. Grade                                                                                                             |
| <b>Industrial Safety and Health Act</b>                                    | Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4)                                                      |
| <b>Industrial Safety and Health Act (2024~)</b>                            | <b>【2024.4.1~】</b> Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)                                       |
| <b>Industrial Safety and Health Act (2025~)</b>                            | <b>【2025.4.1~】</b> Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57)                                             |
| <b>Regulations for the carriage and storage of dangerous goods in ship</b> | <b>【2025.4.1~】</b> Notifiable Substances (Law Art.57-2)                                                                                     |
| <b>Civil Aeronautics Law</b>                                               | Toxic Substances - Poison (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1) |
| <b>Pollutant Release and Transfer Register Law</b>                         | Forbidden (Ordinance Art.194)                                                                                                               |
| <b>(2023.4.1-)</b>                                                         | Not applicable                                                                                                                              |
| <b>Export Trade Control Order</b>                                          | Not applicable                                                                                                                              |

| Chemical Name                            | Poisonous and Deleterious Substances Control Law | Industrial Safety and Health Act Substances (Law Art.57-2) | Pollutant Release and Transfer Register Law (2023.4.1-) |
|------------------------------------------|--------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------|
| Methyl chloroacetate<br>96-34-4 ( 95.0 ) | Applicable                                       | -                                                          | -                                                       |

## Section 16: OTHER INFORMATION

### Key literature references and sources for data etc.

NITE: National Institute of Technology and Evaluation (JAPAN)  
[https://www.chem-info.nite.go.jp/en/chem/chrip/chrip\\_search/srhInput](https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput)  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances  
 Japan Industrial Safety and Health Association GHS Model SDS  
 Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

### Record of SDS revisions Disclaimer

The following contents were revised. Regulatory information.

This SDS is according to JIS Z 7253: 2019. 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, 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.

GHS Classification is according to JIS Z 7252:2019. \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**