

## SAFETY DATA SHEET

Version 7.1  
Revision Date 2024.04.10  
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Date of first issue 2019.08.06  
Product Number Sigma-Aldrich - 158429

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- a. Product name : Diiodomethane
- Product Number : 158429
- Brand : Sigma-Aldrich
- b. Recommended use of the chemical and restrictions on use : **Identified uses**  
Laboratory chemicals, For research use only.
- c. Company : 씨그마알드리치코리아(유)  
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금요일 (공휴일 제외)

**SECTION 2: Hazards identification****a. GHS Classification**

Acute toxicity, Oral (Category 4)  
Long-term (chronic) aquatic hazard (Category 3)

**b. GHS-Labeling**

Pictogram



Signal Word

Warning

#### Hazard Statements

H302 Harmful if swallowed.  
H412 Harmful to aquatic life with long lasting effects.

#### Precautionary Statements

##### Prevention

P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.

##### Response

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

##### Disposal

P501 Dispose of contents/ container according to waste-related laws

#### c. Other hazards which do not result in classification

Possible sensitizer.

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### SECTION 3: Composition/information on ingredients

#### 3a Substances

Synonyms : Methylene iodide

Formula : CH<sub>2</sub>I<sub>2</sub>  
Molecular weight : 267.84 g/mol  
CAS-No. : 75-11-6  
EC-No. : 200-841-5

Component	Classification	Concentration
<b>diiodomethane</b>		
CAS-No. 75-11-6 EC-No. 200-841-5	Acute Tox. 4; Aquatic Chronic 3; H302, H412	>=95 - <= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

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### SECTION 4: First aid measures

#### a. In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### b. In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### c. If inhaled

After inhalation: fresh air.

#### d. If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

**e. Most important acute symptoms/effects**

No data available

**Most important delayed symptoms/effects**

No data available

**f. Notes to physician**

No data available

**General advice**

Show this material safety data sheet to the doctor in attendance.

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**SECTION 5: Firefighting measures**

**a. Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Extinguishing media which shall not be used for safety reasons**

For this substance/mixture no limitations of extinguishing agents are given.

**b. Specific hazards arising from the chemical**

Not combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Ambient fire may liberate hazardous vapours.

**c. Special protective actions for fire-fighters**

In the event of fire, wear self-contained breathing apparatus.

**Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6: Accidental release measures**

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

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

**b. Environmental precautions**

Do not let product enter drains.

**c. Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

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**SECTION 7: Handling and storage**

**a. Precautions for safe handling**

**b. Conditions for safe storage**

Tightly closed.

Recommended storage temperature 15 - 25 °C

**c. Storage class**

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## SECTION 8: Exposure controls/personal protection

### a. Control parameters

Contains no substances with occupational exposure limit values.

### b. Appropriate engineering controls

No data available

### c. Personal protective equipment

#### Respiratory protection

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Hand protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Viton®

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Viton®

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

#### Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

#### Skin and body protection

protective clothing

#### Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

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## SECTION 9: Physical and chemical properties

### a. Appearance

Form

liquid

Color	light brown
b. Odor	characteristic
c. Odor Threshold	No data available
d. pH	No data available
e. Melting point	5 - 8 °C - lit.
f. Initial boiling point	67 - 69 °C at 15 hPa - lit.
g. Flash point	110 °C - closed cup
h. Evaporation rate	No data available
i. Flammability (solid, gas)	No data available
j. Lower explosion limit	No data available
Upper explosion limit	No data available
k. Vapor pressure	No data available
l. Water solubility	0.8 g/l at 25 °C
m. Relative vapor density	9.25 - (Air = 1.0)
n. Density	3.325 g/mL at 25 °C
o. Partition coefficient: n- octanol/water	log Pow: 2.30 - (Lit.), Bioaccumulation is not expected.
p. Autoignition temperature	No data available
q. Decomposition temperature	No data available
r. Viscosity, dynamic	2.8 mPa.s at 20 °C
Viscosity, kinematic	No data available
s. Molecular weight	267.84 g/mol

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## SECTION 10: Stability and reactivity

### a. Chemical stability

No data available

### b. Possibility of hazardous reactions

Risk of explosion with:

Alkali metals

Violent reactions possible with:

Strong oxidizing agents

strong alkalis

Zinc

alkali salts

### c. Conditions to avoid

Strong heating.

### d. Incompatible products

No data available

### e. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen iodide

Other decomposition products - No data available

### Thermal decomposition

No data available

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Acute toxicity estimate Oral - 500.1 mg/kg  
(Expert judgment)

Inhalation: No data available

Dermal: No data available

#### Skin corrosion/irritation

Remarks: No data available

#### Serious eye damage/eye irritation

Remarks: No data available

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

#### Reproductive toxicity

No data available

#### Specific target organ toxicity - single exposure

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information**

RTECS: PA8575000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 45 mg/l - 96 h (OECD Test Guideline 203) Remarks: The value is given in analogy to the following substances: dibromomethane
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Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 66 mg/l - 48 h Remarks: (ECOTOX Database) The value is given in analogy to the following substances: dibromomethane
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**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Endocrine disrupting properties**

No data available

**12.7 Other adverse effects**

No data available

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**SECTION 13: Disposal considerations****a. Disposal methods**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

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**SECTION 14: Transport information****IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**Further information**

Not classified as dangerous in the meaning of transport regulations.

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**SECTION 15: Regulatory information****a. Regulation under the Occupational Safety and Health Act**

Harmful Substances Required Permission for Manufacture - Not applicable

Harmful Substances Prohibited from Manufacturing - Not applicable

Harmful Agents to be kept below Occupational Exposure Limits - Not applicable

Controlled Substances Subject to Environment Monitoring - Not applicable

Controlled Substances Subject to Health Examination - Not applicable

Hazardous Substances Subject to Process Safety Management (PSM) Reporting Obligation  
Not applicable

Hazardous substances requiring management - Not applicable

Special Management Materials - Not applicable

**b. Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act**

Toxic Chemicals - Not applicable

Restricted Chemicals - Not applicable

Prohibited Chemicals - Not applicable

Accident Precaution Chemicals - Not applicable

**c. Dangerous Substances Safety Management Act**

Flammable liquids, Type 3 petroleums -Water insoluble liquid

**d. Waste Control Act**

Follow article 13 of the act to dispose the product waste

**e. Other regulations****KECI Number**

Not in compliance with the inventory



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**SECTION 16: Other information****a. List of references****b. Issuing date:** 2019.08.06**c. Version:** 7.1 Revision Date 2024.04.10**d. Relevant changes since previous version**

14. Transport information

**e. Further information****Text of H-code(s) and R-phrases(s) mentioned in Section 3**

H302	Harmful if swallowed.
H412	Harmful to aquatic life with long lasting effects.

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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