Date of issue: 2018/12/13
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Safety Data Sheet

Section 1. Identification of the substance/mixture and of the company/undertaking

Product identifier:
Product name: Iodomethane
SDS No. : 4981E-3
Relevant identified uses of the substance or mixture and uses advised against
Research and Development
Details of the supplier of the safety data sheet
Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.
Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN
Division: Chemical Safety Management Department
Telephone number: +81-6-6946-8061
FAX: +81-6-6946-1607

Section 2. Hazards identification

GHS classification and label elements of the product
Classification of the substance or mixture
HEALTH HAZARDS
Acute toxicity (Oral): Category 3
Acute toxicity (Inhalation): Category 2
Skin corrosion/irritation: Category 2
Serious eye damage/eye irritation: Category 2
Specific target organ toxicity - single exposure: Category 1 (central nervous system)
Specific target organ toxicity - single exposure: Category 3 (Respiratory tract irritation)
Specific target organ toxicity - single exposure: Category 3 (Narcotic effects)
Specific target organ toxicity - repeated exposure: Category 1 (central nervous system)
Specific target organ toxicity - repeated exposure: Category 2 (thyroid, respiratory system)
(Note) GHS classification without description: Not classified/Classification not possible
Label elements

Signal word: Danger
HAZARD STATEMENT
H301 Toxic if swallowed
H330 Fatal if inhaled
H315 Causes skin irritation
H319 Causes serious eye irritation
H370 Causes damage to organs (central nervous system)
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness
H372 Causes damage to organs through prolonged or repeated exposure (central nervous system)
H373 May cause damage to organs through prolonged or repeated exposure (thyroid, respiratory system)
PRECAUTIONARY STATEMENT

Prevention
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P284 In case of inadequate ventilation wear respiratory protection.
P271 Use only outdoors or in a well-ventilated area.
P264 Wash contaminated parts thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
P270 Do not eat, drink or smoke when using this product.
Response
P314 Get medical advice/attention if you feel unwell.
P310 Immediately call a POISON CENTER/doctor/physician.
P312 Call a POISON CENTER/doctor/physician if you feel unwell.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor/physician.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P330 IF SWALLOWED: Rinse mouth.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.
Storage
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
Disposal
P501 Dispose of contents/container in accordance with local/national regulation.
Specific adverse human health effects
See "11. Toxicological Information".

Section 3. Composition/information on ingredients

Mixture/Substance selection:
Substance

Ingredient name	Content (%)	CAS No.	Chemicals No, Japan	Chemical formula
Iodomethane	95(min)	74-88-4	2-42	CH3I

Note : The figures shown above are not the specifications of the product.
Stabilizing additives
Copper, chip (CAS No.7440-50-8). Hazard statement is explained by reference to SDS of Copper, chip(SDS No.17962).

Section 4. First-aid measures

Descriptions of first-aid measures
General measures
Get medical advice/attention if you feel unwell.
IF INHALED

Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor/physician if you feel unwell.

IF ON SKIN

Take off immediately all contaminated clothing. Rinse skin with water or shower.
Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

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.

IF SWALLOWED

Rinse mouth.
Immediately call a POISON CENTER/doctor/physician.
Call a POISON CENTER/doctor/physician if you feel unwell.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Fire may produce irritating, corrosive and/or toxic gases.
Runoff from fire control or dilution water may cause pollution.
See "10.Stability and Reactivity".

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.
Wear protective gloves/protective clothing/eye protection/face protection.
Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure mode.

Section 6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.
Ventilate area until material pick up is complete.
Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses, low areas or rivers. To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.
Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident

Collect spillage.

Section 7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

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

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash hands et al thoroughly after handling.

When using do not eat, drink or smoke.

Any incompatibilities

See "10.Stability and Reactivity".

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Take off contaminated clothing and wash it before reuse.

Storage

Conditions for safe storage

Keep container tightly closed.

Store locked up. (P405)

Chilled storage.

Keep container protect from light.

Storage in accordance with local/national regulation.

Container and packaging materials for safe handling

Use closed unbreakable containers.

Section 8. Exposure controls/personal protection

Control parameters

Adopted value

(Iodomethane)

ACGIH(1996) TWA: 2ppm (Eye dam; CNS impair)

(Copper)

ACGIH(1990) TWA: 0.2mg-Fume/m3,

TWA: 1mg-Dust and mist/m3 (Irr; GI; metal fume fever)

[ACGIH] Notation

(Iodomethane)

Skin

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.
Washing facilities should be available.

Individual protection measures

Recommend to use protective equipment in conformity with the standards.
Use appropriate protective equipment in accordance with local/national regulation.

Respiratory protection

Wear respiratory protection (dust-proof mask/gas mask). Select chemical cartridge corresponding to type of gases when using a gas mask.

Hand protection

Wear impervious protective glove.

Eye protection

Wear eye/face protection. Wear safety goggles in cases gas is generated.

Skin and body protection

Wear protective clothing.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Liquid
Color: Colorless
Odor: Characteristic odor
Melting point/Freezing point: -66.5℃
Boiling point or initial boiling point: (Iodomethane)42.5℃
Boiling range data is not available.
Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit:
Lower explosion limit: 8.5 vol %
Upper explosion limit: 66 vol %
Flash point data is not available.
Auto-ignition temperature: (Iodomethane)355℃
Decomposition temperature data is not available.
pH data is not available.
Kinematic viscosity: 0.18 mm2/s (40℃)
Solubility:
Solubility in water: 1.4 g/100 ml (20℃)
Solubility in solvent data is not available.
n-Octanol/water partition coefficient: log Pow1.51
Vapor pressure: 50 kPa (20℃)
Density and/or relative density: 2.3
Relative vapor density (Air=1): 4.9
Relative density of the Vapor/air - mixture at 20℃ (Air = 1): 2.7
Particle characteristics data is not available.

Other information

Other information is not available.

Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

(Iodomethane)
Turns brown on exposure to light and moisture. (ICSC 0509)

Possibility of hazardous reactions
(Iodomethane)
The vapour is heavier than air and may accumulate in lowered spaces causing a deficiency of oxygen.
Decomposes above 270℃ . This produces hydrogen iodide. Reacts with strong oxidants. This generates explosion hazard. Reacts with oxygen at 300° C. This generates explosion hazard. (ICSC 0509)

Conditions to avoid
Contact with incompatible materials.
Contact with fire source.

Incompatible materials
Strong oxidizing agents

Hazardous decomposition products
Hydrogen iodide

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[Product]
Category 3, Toxic if swallowed

[Data for components of the product]
[GHS Cat. Japan, base data]
(Iodomethane)
rat LD50=76mg/kg (DFGOT vol. 7, 1996)

Acute toxicity (Inhalation)

[Product]
Category 2, Fatal if inhaled

[Data for components of the product]
[GHS Cat. Japan, base data]
(Iodomethane)
vapor: rat LC50=232ppm/4hr (ACGIH 7th, 2001)

Irritant properties

Skin corrosion/irritation

[Product]
Category 2, Causes skin irritation

[Data for components of the product]
[GHS Cat. Japan, base data]
(Iodomethane)
rabbit moderate (Pesticide abstract, 2012)

Serious eye damage/irritation

[Product]
Category 2, Causes serious eye irritation

[Data for components of the product]
[GHS Cat. Japan, base data]
(Iodomethane)
Highly severe irritation (Japan food safety commission, 2011)

Allergenic and sensitizing effects data is not available.
Mutagenic effects data is not available.
Carcinogenicity
[Data for components of the product]
[IARC]
(Iodomethane)
Group 3 : Not classifiable as to its carcinogenicity to humans
[EU]
(Iodomethane)
Category 2; Substances suspected human carcinogens
Reproductive toxicity data is not available.
Specific target organ toxicity (STOT)
STOT-single exposure
[Product]
Category 1, Causes damage to organs
Category 3, May cause respiratory irritation
Category 3, May cause drowsiness or dizziness
[Data for components of the product]
[cat.1]
[GHS Cat. Japan, base data]
(Iodomethane)
central nervous system (PATTY 6th, 2012)
[cat.3 (respiratory tract irritation)]
[GHS Cat. Japan, base data]
(Iodomethane)
respiratory tract irritation (ATSDR, 2004)
(Copper)
respiratory tract irritation (ATSDR, 2004)
[cat.3 (narcotic effects)]
[GHS Cat. Japan, base data]
(Iodomethane)
narcotic effect (DFGOT vol. 7, 1996)
STOT-repeated exposure
[Product]
Category 1, Causes damage to organs through prolonged or repeated exposure
Category 2, May cause damage to organs through prolonged or repeated exposure
[Data for components of the product]
[cat.1]
[GHS Cat. Japan, base data]
(Iodomethane)
central nervous system (DFGOT vol. 7, 1996)
[cat.2]
[GHS Cat. Japan, base data]
(Iodomethane)
thyroid, respiratory system (Japan Pesticide Abstract, 2012)
Aspiration hazard data is not available.

Section 12. Ecological Information

Toxicity

Toxicity data is not available.

Water solubility

(Iodomethane)

1.4 g/100 ml (20℃) (ICSC, 2012)

(Copper)

none (ICSC, 1993)

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

[Data for components of the product]

(Iodomethane)

log Pow=1.51 (ICSC, 2012)

(Copper)

log Pow=−0.57 (calculated) (ICSC, 2016)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Section 13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Dispose of contents/container as industrial waste. Accordance with local/national regulation.

Section 14. Transport Information

UN Number or ID Number : 2644

UN Proper Shipping Name :

METHYL IODIDE

Class or division (Transport hazard class) : 6.1

Packing group : I

ERG GUIDE No.: 151

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 2644

UN Proper Shipping Name :

METHYL IODIDE

Class or division (Transport hazard class) : 6.1

Packing group : I

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 2644

UN Proper Shipping Name :

METHYL IODIDE

Class or division (Transport hazard class) : 6.1

Packing group : I

Environmental hazards

Marine pollutants (yes/no) : no

Section 15. Regulatory Information

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

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

Iodomethane; Copper

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

Section 16. Other information

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 22nd edit., 2021 UN
IMDG Code, 2022 Edition (Incorporating Amendment 41-22)
IATA Dangerous Goods Regulations (65th Edition) 2024
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2024 TLVs and BEIs. (ACGIH)
Supplier's data/information

General Disclaimer

Please provide SDS to customers for selling or transferring.
All chemicals have unknown hazard. Handle the product with care.
This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.
The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.
The GHS classification data given here is based on current Japan official data (NITE published in 2022).