

Safety Data Sheet

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

Product identifier:

Product name: Iodine monochloride

Product code (SDS NO): 15380jis_J_E1-1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-Cho, Koshigaya, Saitama 343-0844, Japan

Division: Quality Assurance Department

Telephone number: +81-48-986-6161

FAX: +81-48-989-2787

e-mail address: shiyaku-t@junsei.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Acute toxicity (Oral): Category 2

Acute toxicity (Dermal): Category 3

Skin corrosion/irritation: Category 1A

Serious eye damage/eye irritation: Category 1

Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)

(Note) GHS classification without description: Not classified/Classification not possible

Label elements



Signal word: Danger

HAZARD STATEMENT

H300–Fatal if swallowed

H311–Toxic in contact with skin

H314–Causes severe skin burns and eye damage

H318–Causes serious eye damage

H335–May cause respiratory irritation

PRECAUTIONARY STATEMENT

Prevention

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

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

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

Response

Immediately call a POISON CENTER or doctor/physician.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN: Wash with plenty of soap and water.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Take off immediately all contaminated clothing and wash it before reuse.

Iodine monochloride, JUNSEI CHEMICAL CO., LTD., 15380jis_J_E1-1, 30/09/2019

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

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

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

Store locked up.

Disposal

Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name: Iodine Monochloride

Content (%): 98.0 <

Chemical formula: ClI

Chemicals No, Japan: 1-642

CAS No.: 7790-99-0

MW: 162.36

ECNO: 232-236-7

4. First-aid measures

Descriptions of first-aid measures

General measures

Immediately call a POISON CENTER or doctor/physician.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/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. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use alcohol-resistant foam, dry powder, CO2 to extinguish.

The product is non-flammable.

Unsuitable extinguishing media

Never use water.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire/ flame resistant/retardant clothing.

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

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

PUBLIC SAFETY: Ventilate closed spaces before entering.

Environmental precautions

Avoid release to headsprings, rivers, lakes, ocean and groundwater.

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.

Use clean non-sparking tools to collect absorbed material.

All equipment used when handling the product must be grounded.

Preventive measures for secondary accident

Collect spillage.

Stop leak if you can do it without risk.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Prevent entry into waterways, sewers, basements or confined areas.

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/sparks/open flames/hot surfaces. – 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 or face protection.

Wear eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Any incompatibilities

Strong bases, Water, Combustible substances(organic substances) should not be mixed with the chemicals.

Advice on general occupational hygiene

- Wash contaminated parts thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Take off immediately all contaminated clothing and wash it before reuse.

Storage**Conditions for safe storage**

- Store in a well-ventilated place. Keep container tightly closed.
- Keep cool. Protect from sunlight.
- Store locked up.

Container and packaging materials for safe handling data is not available.

8. Exposure controls/personal protection**Control parameters**

Control value in MHLW is not available.

Adopted value

Adopted value in JSOH is not available.

ACGIH(2007) TWA: 0.01ppm(IFV) (Hypothyroidism; URT irr)

OSHA-PEL value is not available.

NIOSH-REL value is not available.

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**Respiratory protection**

Wear respiratory protection.

Hand protection

Wear protective gloves. Recommended material(s): viton

Eye protection

- Wear chemical safety goggle.
- Wear eye/face protection.

Skin and body protection

Wear impervious clothing and boots in case of repeated or prolonged treatment.

9. Physical and Chemical Properties**Information on basic physical and chemical properties**

Physical state: Crystals or liquid

Color: Black (crystals); Dark red (liquid)

Odor: Irritant odor

pH data is not available.

Boiling point or initial boiling point: 97°C

Melting point/Freezing point: 27°C

Decomposition temperature: 97°C

Self-Accelerating Decomposition Temperature/SADT data is not available.

Flammability (gases, liquids and solids) data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Critical temperature data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Vapor pressure data is not available.

Vapor density data is not available.

VOC data is not available.

Relative vapor density (Air=1) data is not available.

Relative density of the Vapor/air – mixture at 20°C (Air = 1) data is not available.

Density and/or relative density: 3.18g/cm³(20°C)

Dynamic viscosity data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Soluble (Decomposition)

Solubility in solvent: Soluble in alcohol, ether.

n-Octanol/water partition coefficient data is not available.

10. Stability and Reactivity

Reactivity

React with water.

Chemical stability

Stable under normal storage/handling conditions.

Not hygroscopic, but forms I₂O₅ in the presence of air.

Possibility of hazardous reactions

Will react with water or steam, to produce toxic & corrosive fumes.

Conditions to avoid

Contact with incompatible materials.

Heat. Air. Light. Moisture

Incompatible materials

Strong bases, Water, Metals, Combustible substances (organic substances)

Hazardous decomposition products

Hydrogen chloride, Hydrogen iodide

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral), Product

rat LD₅₀=50mg/kg (RTECS)

Acute toxicity (Dermal), Product

rat LD₅₀=500mg/kg (RTECS)

Irritant properties

Skin corrosion/irritation

No toxicological data are available for iodmonochloride.

The substance is known to be very destructive to skin and mucous skin.

According to Regulation 1272/2008/EC (CLP) the substance is classified as Category 1A. (ECHA

Registered substances factsheets)

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Reproductive toxicity data is not available.

STOT

STOT-single exposure

[cat.3 (resp. irrit.)]

According to Regulation 1272/2008/EC (CLP) the substance is classified as Category 3. (ECHA

Registered substances factsheets)

Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity data is not available.
Persistence and degradability data is not available.
Bioaccumulative potential data is not available.
Mobility in soil data is not available.
Ozone depleting chemical data is not available.

13. Disposal considerations

Waste treatment methods
Dispose of contents/container in accordance with local/national regulation.

14. Transport Information**UN No., UN CLASS**

UN No.: 1792
Proper Shipping Name : IODINE MONOCHLORIDE, SOLID
Class or division : 8
Packing group : II
ERG GUIDE No.: 157

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 1792
Proper Shipping Name : IODINE MONOCHLORIDE, SOLID
Class or division : 8
Packing group : II

IATA Dangerous Goods Regulations

UN No.: 1792
Proper Shipping Name : IODINE MONOCHLORIDE, SOLID
Class or division : 8
Hazard labels : Corrosive
Packing group : II

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances
Marine pollutants (yes/no) : no

15. Regulatory Information

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

Environmental hazards

US major regulations

TSCA

Iodine Monochloride

Other regulatory information

We are not able to check up the regulatory information with regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

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

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

16. Other information

GHS classification and labelling

H300–Acute Tox. 2: H300 Fatal if swallowed
H311–Acute Tox. 3: H311 Toxic in contact with skin
H314–Skin Corr. 1A: H314 Causes severe skin burns and eye damage
H318–Eye Dam. 1: H318 Causes serious eye damage
H335–STOT SE 3: H335 May cause respiratory irritation

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN
IMDG Code, 2018 Edition (Incorporating Amendment 39–18)
IATA Dangerous Goods Regulations (60th Edition) 2019
Classification, labelling and packaging of substances and mixtures (table3–1 ECNO6182012)
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2019 TLVs and BEIs. (ACGIH)
<http://monographs.iarc.fr/ENG/Classification/index.php>
Supplier's data/information
Chemicals safety data management system "GHS Assistant" (<https://www.asahi-ghs.com/>)
NITE Chemical Risk Information Platform (NITE–CHRIP)
https://www.nite.go.jp/en/chem/chrip/chrip_search/systemTop
GHS Classification Guidance for Enterprises 2013 Revised Edition (Aug. 2013, METI)

General Disclaimer

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 2018).