

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

Identification of the product

Iodine

Manufacturer/supplier identification

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2. Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

Skin corrosion (category 1C)

Skin sensitization (Category 1)

Acute aquatic toxicity (Category 1)

Label elements

Pictogram



Signal word Danger

Hazard statement(s)

- H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H400 Very toxic to aquatic organisms.

Precautionary statement(s)

- P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391 Collect spillage.

Supplemental Hazard Statements

none

3. Composition/information on ingredients

Synonyms

Iodine

CAS-No.: 7553-56-2

M: 253.81 g/mol

Molecular formula: I₂

4. First aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. Fire-fighting measures

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. Accidental release measures

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Handle and store under inert gas. Hygroscopic.

8. Exposure controls/personal protection

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment**Eye/face protection**

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

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. Physical and chemical properties

Form: solid

Colour: black, violet

Odour: not available

pH value: not available

Melting point: 113 °C

Boiling point: 184 °C

Ignition temperature: not available

Flash point: 72 °C

Autoignition temperature: not available

Explosion limits

lower: not available

upper: not available

Density : 4.93 g/mL

Bulk density: not available

Solubility in

water (20 °C) : not available

diluted acids (20 °C) : not available

Thermal decomposition: not available

10. Stability and reactivity**Chemical stability**

no data available

Conditions to avoid

no data available

Materials to avoid

Rubber, Plastics, Iron and iron salts., Sulphur compounds, Ammonia, Magnesium, Zinc, Aluminum, Metals,

Alkalis, Antimony salts, Arsenites, bromides, chlorides, iodides, thiocyanates, ferrous salts, hypophosphites, morphine salts, oils, creosote, phosphates, tannins, tartrates, Mixing iodine, antimony, and ammonia resulted in an explosion. A violent reaction occurs between iodine and acetaldehyde., Acetylene, Acetaldehyde, Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - no data available

11. Toxicological information**Acute toxicity**

LD50 Oral - Rat - 14.000 mg/kg

Remarks: Diarrhoea

LC50 Inhalation - Rat - 4 h - > 4,588 mg/l

(OECD Test Guideline 403)

Remarks: Cough Respiratory disorder

LC50 Dermal - Rat - male - 1.425 mg/kg

(OPPTS 870.1200)

Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE)

Result: Moderate skin irritation

Serious eye damage/eye irritation

Moderate eye irritation

Respiratory or skin sensitization

- Mouse

Result: Does not cause skin sensitisation.

Germ cell mutagenicity

Hamster

Embryo

Result: negative

Mutagenicity (micronucleus test)

Mouse - male and female

Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Respiratory system

Specific target organ toxicity - repeated exposure

Oral - Causes damage to organs through prolonged or repeated exposure. - Thyroid

Aspiration hazard

no data available

12. Ecological information**Toxicity**

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 1,7 mg/l - 96,0 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 0,2 mg/l - 48 h

other aquatic

invertebrates

Toxicity to algae Growth inhibition EC50 - Desmodesmus subspicatus (green algae) - 0,13 mg/l

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. Disposal considerations**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. Transport information**ADR/RID**

UN-Number: 3495 Class: 8(6.1) Packing group: III

Proper shipping name: IODINE

IMDG

UN-Number: 3495 Class: 8(6.1) Packing group: III

Proper shipping name: IODINE

Marine pollutant: yes

IATA

UN-Number: 3495 Class: 8(6.1) Packing group: III

Proper shipping name: Iodine

15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. Other information

General update.

Regional representation:

This information is given on the authorised Safety Data Sheet for your country.