

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 18.11.2025

Version number 6 (replaces version 5)

Revision: 18.11.2025

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

- **1.1 Product identifier**
- **Creation date** 13.12.2010
- **Trade name:** iodine
- **Article number:** 0901
- **CAS Number:**
7553-56-2
- **EC number:**
231-442-4
- **Index number:**
053-001-00-3
- **Registration number**
A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Only for the use of professionals users
- **Life cycle stages IS** Use at industrial Sites
- **Sector of Use**
SU9 Manufacture of fine chemicals
SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU24 Scientific research and development
- **Product category**
PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
PC21 Laboratory chemicals
PC29 Pharmaceuticals
PC40 Extraction agents
- **Process category**
PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC4 Chemical production where opportunity for exposure arises
PROC5 Mixing or blending in batch processes
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC15 Use as laboratory reagent
- **Environmental release category**
ERC1 Manufacture of the substance
ERC2 Formulation into mixture
ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC6a Use of intermediate
- **Application of the substance / the mixture**
Chemical for research, development, manufacturing, laboratory chemical for analysis.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Biosolve Chimie
20 Rue Roger Husson, 57260 Dieuze, France
Tel: +33 3 878 675 80/81/82/83/84/85

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Email: info@biosolvechimie.com

Biosolve B.V.

Kerkhofstraat 21, 5554HG Valkenswaard, the Netherlands.

Tel: +31-(0)40-2071300

Fax: +31-(0)40-2048537

Email: info@biosolve-chemicals.com

· **Further information obtainable from:** Product safety department.

· **1.4 Emergency telephone number:**

Contact list of appointed bodies for information relating to emergency health response, according to Art. 45(1) Reg. (EC) No 1272/2008.

See at <https://poisoncentres.echa.europa.eu/appointed-bodies>

Help desk: <http://echa.europa.eu/web/guest/support/helpdesks/national-helpdesks/list-of-national-helpdesks>.

For more information see section 16.

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**


GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms**


GHS07



GHS09

· **Signal word** Warning

· **Hazard statements**

H312+H332 Harmful in contact with skin or if inhaled.

H400 Very toxic to aquatic life.

· **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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P280 Wear protective gloves / protective clothing.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Substances

· CAS No. Description

CAS: 7553-56-2 iodine

· Identification number(s)

· **EC number:** 231-442-4

· **Index number:** 053-001-00-3

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Generally the product does not irritate the skin.

· After eye contact:

Rinse opened eye for several minutes under running water.

· After swallowing:

If symptoms persist consult doctor.

· 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents:

Use fire extinguishing methods suitable to surrounding conditions.

· 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

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- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
Requirements to be met by storerooms and receptacles: No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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· Hand protection

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye/face protection Not required.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state

Solid

· Colour:

Not determined.

· Odour:

Characteristic

· Odour threshold:

No data available.

· Melting point/freezing point:

113.6 °C

· Boiling point or initial boiling point and boiling range

184.35 °C

· Flammability

Product is not flammable.

· Lower and upper explosion limit

· Lower:

No data available

· Upper:

No data available

· Flash point:

Not applicable.

· Decomposition temperature:

No data available

· pH

Not applicable.

· Viscosity:

· Dynamic:

Not applicable.

· Solubility

· water at 20 °C:

0.34 g/l

· Partition coefficient n-octanol/water (log value)

No data available

· Vapour pressure at 20 °C:

0.35 hPa

· Vapour pressure at 50 °C:

2.8 hPa

· Density and/or relative density

· Density at 20 °C:

4.93 g/cm³

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· Relative density	No data available
· Vapour density	Not applicable.
· Particle characteristics	See section 3.
· 9.2 Other information	
· Appearance:	
· Form:	Solid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	No data available
· Explosive properties:	Product does not present an explosion hazard.
· Molecular weight	253.8 g/mol
· Change in condition	
· Evaporation rate	Not applicable.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Harmful in contact with skin or if inhaled.

LD/LC50 values relevant for classification:

Oral	LD50	14,000 mg/kg (rat)
Dermal	LD50	1,100 mg/kg (ATE)
Inhalative	LC50/4 h	1.5 mg/l (ATE)

Primary irritant effect:

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties Substance is not listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

Remark: Very toxic for fish

Additional ecological information:

General notes:

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Very toxic for aquatic organisms

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SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

HP6	Acute Toxicity
HP14	Ecotoxic

· Uncleaned packaging:

· Recommendation:

Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN number or ID number

· ADR, IMDG, IATA

UN3495

· 14.2 UN proper shipping name

· ADR

UN3495 IODINE, ENVIRONMENTALLY
HAZARDOUS

· IMDG

IODINE, MARINE POLLUTANT

· IATA

IODINE

· 14.3 Transport hazard class(es)

· ADR



· Class

8 (CT2) Corrosive substances.

· Label

8+6.1

· IMDG



· Class

8 Corrosive substances.

· Label

8/6.1

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· IATA



· Class 8 Corrosive substances.
· Label 8 (6.1)

· 14.4 Packing group III
· ADR, IMDG, IATA

· 14.5 Environmental hazards: Environmentally hazardous substance, solid; Marine Pollutant
· Marine pollutant: Yes
Symbol (fish and tree)
· Special marking (ADR): Symbol (fish and tree)

· 14.6 Special precautions for user Warning: Corrosive substances.
· Hazard identification number (Kemler code): 86
· EMS Number: F-A,S-B
· Stowage Category B
· Stowage Code SW2 Clear of living quarters.
· Segregation Code SG37 Stow "separated from" ammonia.

· 14.7 Maritime transport in bulk according to IMO instruments Not applicable.

· Transport/Additional information:

· ADR
· Limited quantities (LQ) 5 kg
· Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g
· Transport category 3
· Tunnel restriction code E

· IMDG
· Limited quantities (LQ) 5 kg
· Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
· Directive 2012/18/EU
· Named dangerous substances - ANNEX I Substance is not listed.

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- **Seveso category E1** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 75
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS** (Upper limit value for the purpose of licensing under Article 5(3))
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.
- **Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department

- **Contact:**

Austria Vergiftungsinformationszentrale (VIZ) (+43) 1 406 43 43

Belgium Centre Antipoisons (+32) 070 245 245

Antigifcentrum 070 245 245 (+32)

Bulgaria Национален токсикологичен информационен център

Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов" (+359) 2 9154 233

Croatia Centar za kontrolu otrovanja (+385) 01 2348 342

Cyprus Υπουργείο Εργασίας, Πρόνοιας και Κοινωνικών Ασφαλίσεων

Τμήμα Επιθεώρησης Εργασίας 1401

Czech Republic Toxikologické informační středisko (+420) 224 919 293, (+420) 224 915 402

Denmark Giftlinjen: +45 8212 1212

Estonia Terviseameti mürgistusteabekeskuse 16662, (+372) 7943 794

Finland Myrkytystietokeskus 0800 147 111, 09 471 977

France ORFILA (INRS) : + 33 (0)1 45 42 59 59

Centres Antipoison et de Toxicovigilance

ANGERS: 02 41 48 21 21

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BORDEAUX: 05 56 96 40 80

LILLE: 0800 59 59 59

LYON: 04 72 11 69 11

MARSEILLE: 04 91 75 25 25

NANCY: 03 83 22 50 50

PARIS: 01 40 05 48 48

STRASBOURG: 03 88 37 37 37

TOULOUSE: 05 61 77 74 47

Germany Giftnotruf der Charité, Berlin: 030/19240

Giftinformationszentrum-Nord der Länder Bremen, Hamburg, Niedersachsen und Schleswig-Holstein (GIZ-Nord) :0551/19 240

Informationszentrale gegen Vergiftungen Zentrum für Kinderheilkunde Universitätsklinikum Bonn: 0228/19240

Giftnotruf Erfurt Gemeinsames Giftinformationszentrum der Länder Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt und Thüringen: 0361/730 730

Informations- und Beratungszentrum für Vergiftungsfälle Klinik für Kinder- und Jugendmedizin Universitätsklinikum des Saarlandes: 06841/19240

Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen - Klinische Toxikologie - Universitätsmedizin der Johannes Gutenberg-Universität Mainz: 06131/19240

Vergiftungs-Informationen-Zentrale Zentrum für Kinder- und Jugendmedizin Universitätsklinikum: 0761/19240

Giftnotruf München Toxikologische Abteilung der II. Med. Klinik und Poliklinik: 089/19240

Great Britain Members of the public seeking specific information on poisons should contact: In England and Wales: NHS 111 - dial 111 In Scotland: NHS 24 - dial 111

Greece Κέντρο Δηλητηριάσεων (+30) 2107793777

Hungary Országos Kémiai Biztonsági Intézet (OKBI) +(36)-80-201-199

Iceland LANDSPÍTALI - THE NATIONAL UNIVERSITY HOSPITAL Tel. (+354) 543 1000

Ireland National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

Italy Istituto Superiore di Sanità (ISS) +390649906140

CAV "Ospedale Pediatrico Bambino Gesù" – Roma Tel. (+39) 06.6859.3726

CAV "Azienda Ospedaliera Università di Foggia" – Foggia Tel. 800.183.459

CAV "Azienda Ospedaliera A. Cardarelli" – Napoli Tel. (+39) 081.545.3333

CAV Policlinico "Umberto I" – Roma Tel. (+39) 06.4997.8000

CAV Policlinico "A. Gemelli" – Roma Tel. (+39) 06.305.4343

CAV Azienda Ospedaliera "Careggi" U.O. Tossicologia Medica – Firenze Tel. (+39) 055.794.7819

CAV Centro Nazionale di Informazione Tossicologica – Pavia Tel. (+39) 0382.24.444

CAV Ospedale Niguarda – Milano Tel. (+39) 02.66.1010.29

CAV Azienda Ospedaliera Papa Giovanni XXIII – Bergamo Tel. 800.88.33.00

CAV Centro antiveleni Veneto – Verona Tel. 800.011.858

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Latvia Latvijas Vides, ģeoloģijas un meteoroloģijas centrs (+371) 67032600

Lithuania Apsinuodijimų informacijos biuras +370 (5) 2362052

Luxembourg Antigifcentrum / Centre antipoisons (+352) 8002 5500

The Netherlands Nationaal Vergiftigingen Informatie +31 (0)88 755 8000

Norway Giftinformasjonene 22 59 13 00

Poland Biuro do spraw Substancji Chemicznych +48 42 2538 400

Portugal Centro de informação antivenenos 800 250 250

Romania Institutul Național de Sănătate Publică +40213183606

Slovakia Národné toxikologické informačné centrum (NTIC) (+421) 2 5477 4166

Slovenia Urad Republike Slovenije za kemikalije +38614006051

Spain Instituto Nacional de Toxicología y Ciencias Forenses (INTCF) (+34) 91 562 04 20

Sweden Giftinformationscentralen (+46) 10 456 6700

Switzerland Tox Info Suisse 24-h-Notfallnummer: 145 (aus dem Ausland: +41 44 251 51 51) Auskunft: +41 44 251 66 66

· **Date of previous version: 04.11.2025**

· **Version number of previous version: 5**

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Acute Tox. 4: Acute toxicity – Category 4

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

· *** Data compared to the previous version altered.**