

# SAFETY DATA SHEET

IODINE 99.8% BP98

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Compilation date: 19/11/2018

Revision No: 1

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product name:** IODINE 99.8% BP98

**CAS number:** 7553-56-2

**EINECS number:** 231-442-4

**Product code:** RRBD82

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Use of substance / mixture:** PC21: Laboratory chemicals.

### 1.3. Details of the supplier of the safety data sheet

**Company name:** Atom Scientific Ltd

2b East Tame Business Park

Hyde

Manchester

SK14 4GX

**Tel:** 0161 366 5123

**Fax:** 01704 337167

**Email:** technical@atomscientific.com

### 1.4. Emergency telephone number

**Emergency tel:** 07833453806

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Acute Tox. 4: H312+332; Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335; STOT RE 1: H372; Aquatic Acute 1: H400

**Classification under CHIP:** Xn: R20/21; N: R50

**Most important adverse effects:** Harmful in contact with skin or if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Causes damage to organs [thyroid] through prolonged or repeated exposure [oral]. Very toxic to aquatic life.

### 2.2. Label elements

#### Label elements under CLP:

**Hazard statements:** H312+332: Harmful in contact with skin or if inhaled.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H372: Causes damage to organs [thyroid] through prolonged or repeated exposure

[cont...]

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[oral].

H400: Very toxic to aquatic life.

**Signal words:** Danger

**Hazard pictograms:** GHS07: Exclamation mark

GHS08: Health hazard

GHS09: Environmental



**Precautionary statements:** P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314: Get medical advice/attention if you feel unwell.

## 2.3. Other hazards

**Other hazards:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** IODINE 99.8% BP98

**CAS number:** 7553-56-2

**EINECS number:** 231-442-4

**Contains:** Molecular Formula : I<sub>2</sub>

Molecular Weight : 253.81 g/mol

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Wash immediately with plenty of soap and water. Take immediately to hospital. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Never give anything by mouth to an unconscious person. Wash out mouth with water. Consult a doctor.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. If unconscious, check for breathing and apply artificial respiration if necessary. Consult a doctor.

[cont...]

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## 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** No data available.

**Inhalation:** No data available.

**Delayed / immediate effects:** No data available.

## 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** No data available.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Water spray. Alcohol resistant foam. Dry chemical powder. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** Not applicable.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection see section 8.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

[cont...]

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## 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. Handle and store under inert gas. Hygroscopic.

**Suitable packaging:** Not applicable.

## 7.3. Specific end use(s)

**Specific end use(s):** No special requirement.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Workplace exposure limits:

#### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	-	1.1 mg/m <sup>3</sup>	-	-

### 8.1. DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

**Engineering measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Respiratory protection:** Particle filter class P2S (EN143). Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min 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.

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

**Skin protection:** Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Environmental:** Do not let product enter drains. Prevent from entering in public sewers or the immediate environment.

[cont...]

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## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Solid

**Colour:** Black

**Odour:** Pungent

**Boiling point/range°C:** 184

**Melting point/range°C:** 113

**Part.coeff. n-octanol/water:** log Pow: 2.49

**Vapour pressure:** 0.41 hPa at 25 °C

**Relative density:** 4.930 g/cm<sup>3</sup>

**pH:** 5.4

### 9.2. Other information

**Other information:** Not applicable.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** No data available.

### 10.2. Chemical stability

**Chemical stability:** No data available.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** No data available.

### 10.4. Conditions to avoid

**Conditions to avoid:** No data available.

### 10.5. Incompatible materials

**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

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes of hydrogen iodide.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

[cont...]

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## Relevant hazards for substance:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH DRM	Based on test data
Skin corrosion/irritation	DRM	Based on test data
Serious eye damage/irritation	OPT	Based on test data
STOT-single exposure	INH	Based on test data
STOT-repeated exposure	-	Based on test data

## Symptoms / routes of exposure

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** No data available.

**Inhalation:** No data available.

**Delayed / immediate effects:** No data available.

**Other information:** Not applicable.

## Section 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity values:

Species	Test	Value	Units
FISH	96H LC50	1.7	mg/l
DAPHNIA	48H EC50	0.2	mg/l
ALGAE	48H EC50	0.13	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** No data available.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No data available.

### 12.4. Mobility in soil

**Mobility:** No data available.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:** Very toxic to aquatic organisms.

## Section 13: Disposal considerations

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## 13.1. Waste treatment methods

**Disposal operations:** Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Recovery operations:** Not applicable.

**Disposal of packaging:** Dispose of as unused product.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN3495

### 14.2. UN proper shipping name

**Shipping name:** ADR/RID: IODINE

IMDG: IODINE

IATA: Iodine

### 14.3. Transport hazard class(es)

**Transport class:** 8 (6.1)

### 14.4. Packing group

**Packing group:** 3

### 14.5. Environmental hazards

**Environmentally hazardous:** Yes

**Marine pollutant:** Yes

### 14.6. Special precautions for user

**Special precautions:** No special precautions.

## Section 15: Regulatory information

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

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

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

[cont...]

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**Phrases used in s.2 and 3:** H312+332: Harmful in contact with skin or if inhaled.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.  
H372: Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
H400: Very toxic to aquatic life.  
R20/21: Harmful by inhalation and in contact with skin.  
R50: Very toxic to aquatic organisms.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.