

## SAFETY DATA SHEET

### POTASSIUM IODIDE 10% w/v

According to Regulation (EC) No 1907/2006, Annex II

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

##### 1.1. Product identifier

**Product name** POTASSIUM IODIDE 10% w/v  
**Product number** 1073

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

**Identified uses** General chemical reagent Laboratory chemicals  
**Uses advised against** None stated, but advisable to use only for intended purpose.

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

###### Supplier

Reagent Chemical Services  
 18 Aston Fields Road  
 Whitehouse Industrial Estate  
 Runcorn  
 Cheshire WA7 3DL

T: 01928 716903 (08.30 - 17.00)  
 F: 01928 716425  
 E: info@reagent.co.uk

##### 1.4. Emergency telephone number

**Emergency telephone** OHES Environmental Ltd 24-7  
 Tel. 0333 333 9939 (24 hour)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

**Physical hazards** Not Classified  
**Health hazards** Skin Irrit. 2 - H315 Eye Irrit. 2 - H319  
**Environmental hazards** Not Classified

**Human health** Irritating to eyes. May cause skin irritation.  
**Environmental** The product is not classed as environmentally hazardous.  
**Physicochemical** May corrode metal surfaces on prolonged or repeated contact.

##### 2.2. Label elements

###### Pictogram



## POTASSIUM IODIDE 10% w/v

<b>Signal word</b>	Warning
<b>Hazard statements</b>	H315 Causes skin irritation. H319 Causes serious eye irritation.
<b>Precautionary statements</b>	P264 Wash contaminated skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse.

### 2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>POTASSIUM IODIDE</b>		<b>10-30%</b>
CAS number: 7681-11-0	EC number: 231-659-4	REACH registration number: 01-2119966161-40-0000
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Acute Tox. 4 - H302	-	
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
STOT RE 1 - H372		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General information</b>	CAUTION! First aid personnel must be aware of own risk during rescue! Always consider any dangers in the vicinity before approaching to treat the casualty. First aid personnel must protect themselves with all necessary personal protective equipment during the assistance of casualties. When breathing is difficult, properly trained personnel may assist the casualty by administering oxygen. Place unconscious person on the side in the recovery position and ensure breathing can take place. Never give anything by mouth to an unconscious person. If breathing has stopped perform CPR. Check airway for any blockages. If medical assistance is needed take as much detail as possible about the incident and hazardous materials involved with the casualty.
<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Rinse mouth thoroughly with water Do not induce vomiting. Get medical attention.
<b>Skin contact</b>	Immediately remove contaminated clothing and wash before re-use. Rinse immediately with plenty of water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Promptly wash eyes with plenty of water or eye wash solution while lifting the eyelids.If possible remove any contact lenses and continue to wash. Get medical attention.

## POTASSIUM IODIDE 10% w/v

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	High concentrations of vapours may irritate the respiratory system.
<b>Ingestion</b>	Small amounts will leave taste in mouth, larger amounts may cause nausea or vomiting. Larger amounts may irritate the digestive system.
<b>Skin contact</b>	May irritate the skin. Prolonged exposure may cause skin conditions such as dryness or eczema.
<b>Eye contact</b>	Irritating to eyes. May cause redness.

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

<b>Notes for the doctor</b>	Have facilities in place to wash skin and eyes in case of exposure.
-----------------------------	---

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire. Water spray, dry powder, carbon dioxide or alcohol resistant foam.
<b>Unsuitable extinguishing media</b>	Do not use water jet as this can spread the fire. Do not use carbon dioxide in enclosed spaces with insufficient ventilation.

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

<b>Specific hazards</b>	In case of fire, toxic or irritating fumes or vapours may be formed. Iodine
<b>Hazardous combustion products</b>	The product is not combustible but can decompose in the event of a fire.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Evacuate and keep non-emergency personnel away from the fire area until it is properly extinguished with no danger of re-ignition. Be aware of dangers from other hazardous substances in the immediate area. Prevent run-off from entering drains and watercourses.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

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

<b>Personal precautions</b>	The following is given as general advice, precautions and procedures should reflect the extent of a spillage and the situation. Have emergency procedures in place for treating spillages, evacuating the area and informing the emergency services if necessary. Spill control personnel should wear personal protective clothing and equipment as described in section 8 of this datasheet. Non-emergency personnel should be kept away from the area of spillage. Avoid generation and spreading of dusts during clean up operations. Avoid ingestion of the product, inhalation of dusts and contact with skin and eyes when treating spillages.
-----------------------------	--

### 6.2. Environmental precautions

## POTASSIUM IODIDE 10% w/v

**Environmental precautions** Avoid unauthorised discharge to the environment. Do not discharge into drains or watercourses or onto the ground. Clean up any spillages immediately, prevent material from spreading and entering drains or sewage systems. If spillages to land cannot be treated safely or if contamination will occur the Environment Agency must be alerted immediately. Large spillages or uncontrolled discharge to water systems must be alerted to the Environmental Agency or other regulatory body. If the product has entered a foul drain or sewage system in significant amounts to cause a hazard then the local water treatment company must be informed.

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

**Methods for cleaning up** Fit drain covers where they are available if the spillage is likely to enter the drainage system. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Take care as floors and other surfaces may become slippery. Wash thoroughly after dealing with a spillage. If in doubt, consult with the local authority regarding discharge to drain. Collect with scoop or shovel if possible to do so safely, otherwise mix with sand or other inert material.

### 6.4. Reference to other sections

**Reference to other sections** Refer to sections 8 and 13 for additional information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Avoid spilling the product. Do not eat, drink or smoke when handling. Wash at the end of each work shift, before eating, drinking, smoking and using the toilet. Do not mix with incompatible substances or mixtures. Remove contaminated clothing/footwear/equipment before entering eating areas or places that would expose others to the product. Do not use in areas close to drainage systems unless measures are in place to prevent access of product. Ensure emergency procedures are in place to treat spillages and cope with other situations such as evacuation. Avoid ingestion, inhalation and contact with skin and eyes.

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

**Storage precautions** Store in a stable situation to avoid spillages. It is advisable to store in a bunded area or use other protective measures such as a sump pallet or storage tray. Store away from heat, direct sunlight and moisture. Avoid extreme temperatures, advisable to store between 5 and 30 C. Do not leave storage containers exposed to the atmosphere as this may result in loss of contents or contamination. If the substance is transferred to other containers ensure the packaging material is compatible. Consult with the packaging manufacturer or supplier.

**Storage class** Chemical storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

**Usage description** Use product under conditions described in this datasheet. Avoid exposure of operators and others who may be affected by its use. Avoid overuse of the product which would create waste and potential spillages. Always use recommended personal protective equipment. Only use the product for its intended use in a safe manner, do not use for other purposes.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

**Biological limit values** No information available., No information available., No information available.

## POTASSIUM IODIDE 10% w/v

### DNEL

Workers - Inhalation; Long term systemic effects: 0.661 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 0.375 mg/kg  
 General population - Inhalation; Long term systemic effects: 0.163 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 0.1875 mg/kg  
 General population - Oral; Long term systemic effects: 0.09375 mg/kg  
 Refers to potassium iodide.

### PNEC

- Fresh water; 2.26 mg/l  
 - Marine water; 0.226 mg/l  
 - Intermittent release; 2.26 mg/l  
 - STP; 14.76 mg/l  
 - Sediment (Freshwater); 3.93 mg/kg  
 - Sediment (Marinewater); 3.93 mg/kg  
 - Soil; 0.004 mg/kg  
 Refers to potassium iodide.

### POTASSIUM IODIDE (CAS: 7681-11-0)

### DNEL

Workers - Inhalation; Long term systemic effects: 0.07 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 1 mg/kg/day  
 General population - Inhalation; Long term systemic effects: 0.035 mg/m<sup>3</sup>  
 General population - Dermal; Long term systemic effects: 1 mg/kg  
 General population - Oral; Long term systemic effects: 0.01 mg/kg/day

### PNEC

- Fresh water; 0.007 mg/l  
 - Intermittent release; 0.075 mg/l  
 - Sediment (Freshwater); 0.007 mg/kg

## 8.2. Exposure controls

### Protective equipment

### Appropriate engineering controls

Provide adequate ventilation and appropriate extraction to avoid occupational exposure. If vapours or mists are generated, work in a fume cupboard.

### Eye/face protection

Wear approved chemical safety goggles conforming to EN 166.

### Hand protection

Use full length gloves. Butyl rubber. Nitrile rubber. Polyvinyl chloride (PVC). Gloves should conform to EN 374 (Chemical and Micro-organisms hazards). The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. Gloves showing signs of degradation should be changed to avoid skin contamination. Gloves should have a breakthrough time sufficient for the amount of handling but allow dexterity for safe movement and handling. When removing used gloves apply proper technique by avoiding skin contact with the outer surface. When packages of the product are being handled during storage or transport it is advisable to wear protective gloves to prevent damage to the skin.

### Other skin and body protection

Wear suitable protective clothing during transport, handling and storage operations connected with the product. Protective clothing should conform to the general requirements of EN 340:2003. Also consider EN 13034:2005; EN 14605:2005; EN 943:2002 dependent upon the situation resulting in exposure. When treating spillages it is recommended to wear protective boots. Safety footwear should conform to standards EN 344 - 347. Consult with the supplier as to the compatibility of protective clothing and footwear. Wear rubber or plastic apron and full length gauntlets if handling large amounts. Provide eyewash station and safety shower. If there is a risk of splashing then wear a face shield.

## POTASSIUM IODIDE 10% w/v

<b>Hygiene measures</b>	Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove contaminated clothing and wash before reuse. Remove contaminated clothing when entering eating areas or other places that could lead to contamination of others with the product. When using do not eat, drink or smoke.
<b>Respiratory protection</b>	Wear suitable respiratory protection when vapours or mists are generated and there is inadequate ventilation or extraction. When a particulate respirator is used it is recommended to use at least Type P2, preferably P3. When the concentration of atmospheric vapour is high enough to cause eye irritation wear full face respiratory equipment. Consult with the supplier as to the compatibility of the equipment with the chemical of concern. CAUTION: Air purifying respirators do not protect the user in oxygen deficient atmospheres, use air supplied system. Respiratory protection should conform to the following standards. BS EN 136: Full face masks. BS EN 140: Half-face masks. BS EN 143: Particulates. Powered air respirators should meet requirements of EN146 and EN12941. Airline fed respirators should meet the requirements of EN 270 and EN1835. Respiratory protection should be maintained in a proper condition and inspected at the frequency specified by current legislation.

### SECTION 9: Physical and Chemical Properties

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

<b>Appearance</b>	Liquid.
<b>Colour</b>	Colourless to pale yellow.
<b>Odour</b>	Odourless.
<b>pH</b>	Not determined.
<b>Melting point</b>	Not determined.
<b>Initial boiling point and range</b>	Not determined.
<b>Flash point</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Vapour pressure</b>	Not determined.
<b>Relative density</b>	~ 1.05 @ 20°C
<b>Solubility(ies)</b>	Miscible with water.
<b>Partition coefficient</b>	log Pow: -0.958 @ 25°C
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

#### 9.2. Other information

<b>Other information</b>	None.
--------------------------	-------

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

<b>Reactivity</b>	Can react to form other iodides or iodine.
-------------------	--

#### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures.
------------------	--

#### 10.3. Possibility of hazardous reactions

## POTASSIUM IODIDE 10% w/v

**Possibility of hazardous reactions** Produces metallic mercury on reaction with mercurous chloride. Liberates iodine in presence of acids.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid heat, direct sunlight and moisture. Avoid freezing. Avoid storage with incompatible materials. Avoid storage in an unstable manner or in a situation that would result in exposure to the product.

### 10.5. Incompatible materials

**Materials to avoid** Acids. Alkalis. Mercury compounds.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** See section 5 for thermal decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**ATE oral (mg/kg)** 5,000.0

#### Acute toxicity - dermal

**ATE dermal (mg/kg)** 11,000.0

#### Skin corrosion/irritation

**Animal data** Potassium Iodide is classed as irritating to skin.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Moderately irritating.

#### Skin sensitisation

**Skin sensitisation** Not sensitising.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Negative.

**Inhalation** May cause respiratory irritation.

**Ingestion** Nausea, vomiting.

**Skin contact** Irritating to skin.

**Eye contact** Irritating to eyes.

## SECTION 12: Ecological Information

**Ecotoxicity** Although not classified as environmentally hazardous, harmful effects cannot be excluded in the event of improper handling or disposal.

### 12.1. Toxicity

**Toxicity** The following information refers to potassium iodide as a substance.

**Acute toxicity - fish** LC<sub>0</sub>, 96 hours: 100 mg/l, Brachydanio rerio (Zebra Fish)  
Refers to potassium iodide

**Acute toxicity - aquatic invertebrates** LC<sub>50</sub>, 24 hours: 226 mg/l, Freshwater invertebrates

## POTASSIUM IODIDE 10% w/v

**Chronic toxicity - fish early life stage** Not available.

**Chronic toxicity - aquatic invertebrates** Not available.

### 12.2. Persistence and degradability

**Stability (hydrolysis)** Scientifically unjustified.

**Biodegradation** Scientifically unjustified.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** BCF: 2.268 L/Kg, Freshwater fish

**Partition coefficient** log Pow: -0.958 @ 25°C

### 12.4. Mobility in soil

**Mobility** Potassium iodide is likely to remain in the aqueous phase and move through the soil with water.

**Adsorption/desorption coefficient** Water - : Koc = 13.22 L/Kg @ °C

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

**Other adverse effects** Will affect drinking water supplies. May effect germination and growth rates of plants if soil contamination occurs.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Any waste material is classed as hazardous waste, it should only be disposed of through licenced waste handlers and treatment sites. Do not allow unauthorised disposal to the environment. If operators are exposed to vapours during the disposal process then suitable respiratory protection should be worn. All other personal protective equipment as described in section 8 should be worn.

**Disposal methods** Uncleaned empty containers should be treated as hazardous waste. Avoid unauthorised disposal. Do not dump illegally onto land or into water. When dealing with waste always consider the waste management hierarchy of Prevention, Preparation for re-use, Recycling, Recovery and Disposal. It is advisable to minimise waste at source if possible, then re-use, recover or recycle wherever possible before considering waste disposal options.

## SECTION 14: Transport information

**General** Not regulated.

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not classified.

### 14.3. Transport hazard class(es)



## POTASSIUM IODIDE 10% w/v

Not classified.

### Transport labels

No transport warning sign required.

### 14.4. Packing group

Not classified.

### 14.5. Environmental hazards

#### Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

Not applicable.

## SECTION 15: Regulatory information

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

<b>National regulations</b>	Industry - Dermal; Long term systemic effects 22 mg/kg/day
<b>EU legislation</b>	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EU) 453/2010.
<b>Guidance</b>	Approved Classification and Labelling Guide (CHIP 4) Industry - Dermal; Long term systemic effects 22 mg/kg/day ECHA Guidance on the compilation of safety data sheets 2014.

### 15.2. Chemical safety assessment

Information from the manufacturer of the raw material has not been received regarding Chemical Safety Assessments, Exposure Scenarios or a Chemical Safety Report.

## SECTION 16: Other information

<b>General information</b>	This datasheet is not intended to be a replacement for a full risk assessment, these should always be carried out by competent persons.
<b>Key literature references and sources for data</b>	Source: European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
<b>Revision comments</b>	Revised classification.
<b>Revision date</b>	08/06/2015
<b>Revision</b>	1
<b>Supersedes date</b>	23/09/2008
<b>SDS number</b>	10853
<b>Risk phrases in full</b>	Not classified.

## POTASSIUM IODIDE 10% w/v

### **Hazard statements in full**

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.