SAFETY DATA SHEET
99.9%
POTASSIUM IODIDE

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. PRODUCT IDENTIFIER

Product name:	Potassium Iodide
Product No.:	POTIOD
CAS-No.:	7681-11-0
EC No.:	231-659-4
REACH:	01-2119906339-35
Synonym:	Potassium Iodine
Chemical Formula:	KI

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Recommended use: Reagent for analysis,
Laboratory chemicals.

Product use: Dietary supplement,
Offers Thyroid protection during medical treatment and from Nuclear Radiation,
A precursor to silver iodide (AgI) an important chemical in film photography,
A component in some disinfectants and hair treatment chemicals,
Used as a fluorescence quenching agent in biomedical research.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

HD Chemicals LTD
UNIT 9 Scott Business Park
PL2 2PB Plymouth UK

Contact Person responsible for SDS: Mr Peter Konefal, e-mail: contact@hdchemicals.co.uk

SECTION 2: HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification 67/548/EEC:

Classification – EC 1272/2008: Acute toxicity, oral; Category 4 (H302)

Skin corrosion/irritation; Category 2 (H315)

Serious eye damage/eye irritation; Category 2A (H319)

Specific target organ toxicity, repeated exposure; Category 1 (H372)

2.2. LABEL ELEMENTS

SIGNAL WORDS

Danger

RISK PHRASES

Not classified

HAZARD PHRASES

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H372	Causes damage to organs through prolonged or repeated exposure

PROTECTION PHRASES

P260	Do not breathe dust/fume/gas/mist/vapours/spray
P280	Wash hands thoroughly after handling
P302+P352	IF ON SKIN: Wash with plenty of soap and 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
P332+P313	If skin irritation occurs: Get medical advice/ attention

SAFETY PHRASES

Not classified

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

67/548/EEC/1999/45/EC

Composition information – main constituents						
Substance name	**Mol. Formula**	**REACH**	**Typical conc. (%w/w)**	**EINECS No.**	**CAS-No.**	**Classification**
Potassium Iodide	KI	01-2119906339-35	99.9%	231-659-4	7681-11-0	Not classified

EC 1272/2008

Composition information – main constituents						
Substance name	**Mol. Formula**	**REACH**	**Typical conc. (%w/w)**	**EINECS No.**	**CAS-No.**	**Classification**
Potassium Iodide	KI	01-2119906339-35	99.9%	231-659-4	7681-11-0	H302, H315, H319, H372

SECTION 4: FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

First-aid measures general: Consult a physician when you fell unwell. Show this safety data sheet to the doctor in attendance.

Inhalation: Remove victim to fresh air immediately and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Get medical attention if any discomfort continues.

Skin contact: Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. If skin irritation persists, call a physician.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

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

Inhalation: May cause shortness of breath

Ingestion: There may be soreness and redness of mouth and throat. May cause irritation/discomfort to mucous membranes. May cause nausea, headache

Skin contact: Prolonged or repeated contact with skin may cause irritation, redness and dermatitis

Eye contact: May cause redness and irritation to eyes

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

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Adjust extinguishing media to the surrounding fire. Use alcohol resistant foam, dry powder, carbon dioxide (CO_2), sand or water spray.

Unsuitable extinguishing media: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

The product is non-combustible but thermal decomposition can lead to release of irritating gases and vapours of hydrogen iodide. Keep product and empty container away from heat and sources of ignition.

5.3. Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective clothing to prevent body, skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective equipment (splash goggles, protective suit, boots, gloves and self-contained breathing apparatus) to prevent any contamination of skin, eyes and personal clothing. Ensure adequate ventilation of the working area. Avoid contact with skin and eyes. Remove all sources of ignition. Avoid breathing vapours, mist or gas. Avoid formation of dust. Keep unprotected persons away. Evacuate personnel to a safe area. For personal protection see section 8.1.

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter sewers/ surface or ground water. Do not allow to enter into soil/subsoil. Prevent further leakage or spillage if safe to do so. Use appropriate container to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable and closed containers for disposal. Clean up affected area. Minimize generation of dust. Store away from other materials.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid formation of dust and spilling. Do not inhale dust/smoke/mist. Ensure adequate ventilation of the working area. Wear personal protective equipment. Avoid contact with eyes and skin. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products. Remove contaminated clothing and shoes. Wash clothing before re-using. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well ventilated area. Keep in original tightly closed containers. Keep away from food, drink and animal feeding stuffs. Avoid heat and other sources of ignition. Protect from direct sunlight. Avoid exposure to water, light and air. Protect from moisture and freezing. Keep away from incompatible materials such as strong oxidizing agents.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters/Exposure guidelines

Occupational Exposure Limit Values (Potassium Iodide):

CAS NO	Exposure limit	Value	Name of Agent
7681-11-0	TWA – 8 Hrs	No data available	No data available
7681-11-0	STEL – 15 Min	No data available	No data available

Engineering controls: Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands before breaks and at the end of the working day.

Protective equipment: Use protective chemical safety goggles (European standard - EN 166), face shield, gloves (European standard - EN 374), long sleeved clothing to prevent skin, body and eyes exposure.

Respiratory equipment: Respiratory protection not required in normal conditions, but when vapours or aerosols are generated must use appropriate certified respirators, which are NIOSH/MSHA or European Standard EN 149 approved respirator.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure. Wear impervious protective clothing (long sleeved clothing, chemical resistant apron, anti static boots). Wear appropriate protective work gloves when handling material to prevent skin contact. The glove material has to be impermeable and resistant to the product: recommended are natural rubber, nitrile rubber, neoprene or PVC gloves. Protective gloves should be replaced at first signs of wear. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Wash and dry hands.

Eye/Face protection: Wear safety glasses with side shields (or goggles).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Crystalline Powder
Colour:	White
Odour:	Odourless

Melting point (°C):	680 °C
Boiling point (°C):	1330 °C
Freezing point:	No data available
Relative density:	3.130 g/cm^3
Specific gravity / density:	Not available
Vapour density:	Not available
Vapour pressure:	Not available
Flash point (°C):	Not available
Molecular mass:	166 g/mol
Auto-ignition temperature:	Not applicable
Oxidizing properties:	Not available
Decomposition temperature:	Not available
Molecular formula:	KI

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

Potassium Iodide is stable under normal conditions of use, storage and transport.

10.2. CHEMICAL STABILITY

This product is stable under normal conditions and under recommended usage and storage.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

When heated can decompose. May liberate toxic gases.

10.4. CONDITIONS TO AVOID

Keep away from food, drink and animal feeding stuffs. Keep product and empty container away from heat and sources of ignition. Protect from direct sunlight. Avoid exposure to water, light and air. Protect from moisture and freezing.

10.5. INCOMPATIBLE MATERIALS

May liberate toxic gases. Keep away from incompatible materials such as strong oxidizing agents.

10.6. HAZARDOUS DECOMPOSITION

The product is non-combustible but thermal decomposition can lead to release of irritating gases and vapours of hydrogen iodide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

TOXIC DOSE	**LD50 Oral – Rat – 2779 mg/kg**
Inhalation:	May cause shortness of breath
Ingestion:	There may be soreness and redness of mouth and throat. May cause irritation/discomfort to mucous membranes. May cause nausea, headache
Skin contact:	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis
Eye contact:	May cause redness and irritation to eyes

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Aquatic Toxicity:

Toxicity to freshwater fish:	LC50: 3200 mg/l, 120h (Onchorhynchus mykiss)
Toxicity to water flea:	EC50: 2,7 mg/l, 48h (Daphnia magna)

12.2. PERSISTENCE AND DEGRADABILITY

Readily biodegradable.

12.3. BIOACCUMULATIVE POTENTIAL

Bioaccumulation is unlikely.

12.4. MOBILITY

The product is water soluble, and may spread in water systems . Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

12.5. RESULTS OF PBT AND VPVB ASSESSMENT

This substance is not a PBT or vPvB.

12.6. OTHER ADVERSE EFFECTS

Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal recommendations: Disposal of Potassium Iodide should be in accordance with local and national legislation. Processing, use or contamination of this product may change the waste management options. Should not be released into the environment. Do not discharge into waterways or sewer systems. Mixing with other materials or other alterations to pure product may significantly change the characteristics of the material. Empty packaging can have residues and are subject to proper waste disposal. Do not re-use empty containers. Keep product and empty container away from heat and sources of ignition. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Uncleaned packaging: Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG

UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A

ADR/RID

UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A

IATA

UN number	N/A
UN proper shipping name	N/A
Transport hazard class(es)	N/A
Packing group	N/A

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

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).

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.

15.2 CHEMICAL SAFETY ASSESSMENT

A Chemical Safety Assessment has not been carried out.

SECTION 16: OTHER INFORMATION

General information

The information contained in this safety data sheet is provided in accordance with the requirements of the regulations. The product should not be used for purposes other than those shown in section 1 without first referring to the supplier and obtaining written handling instruction. As the specific conditions of use of the product are outside the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

Revision Comments

This information is provided in a revised format to that previously produced.

Revision Date: 01/10/2018

Revision: 01

Safety Data Sheet Status Approved.

Date printed 01/10/2018

Signature Initials P.K.

DISCLAIMER:

If this product is re-distributed and re-formulated for sale, details of its hazards and recommended methods for safe handling must be passed to customers. Customers are urged to ensure that the product is entirely suitable for their own purpose. It is the customer's responsibility to ensure that a suitable and sufficient assessment of the risks created by a work activity using this product is undertaken before this product is used.

NOTE:

The information contained in this Safety Data Sheet does not constitute the users own assessment of workplace risk as required by other Health & Safety Legislation (e.g. the Health and Safety at Work Act,1974;the control of Substances Hazardous to Health Regulations,1988). The data given here is based on current knowledge and experience. The purpose of this data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the product's properties.