



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers	
i	Product Name : Potassium Iodide
ii	Chemical Formula : KI
iii	CAS No. : 7681-11-0
iv	EC No. : 231-659-4
v	HSN Code : 28276010
vi	Hazardous : No
vii	Content : Minimum 99.0%
viii	Appearance : White Crystalline Powder
1.2 Relevant identified uses of the substance	
i	Identified uses : Laboratory chemicals, Manufacture of substances
1.3 Details of Manufacturer	
i	Company : Samrat Pharmachem Limited
ii	Address : Plot No. A2/3444-3445, GIDC, Phase 4, Ankleshwar – 393002, Gujarat, India.
iii	Phone : +91-7045456789
iv	Email : contact@samratpharmachem.in
v	Webpage : www.samratpharmachem.com
1.4 Emergency Number	
	Emergency Phone : +91-7046456789




2. HAZARD IDENTIFICATION

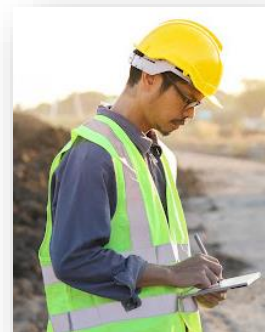
2.1 Classification of substance	
<i>GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)</i>	
i	H302 : Acute toxicity, Oral (Category 4)
ii	H315 : Skin irritation (Category 2)
iii	H319 : Eye irritation (Category 2A)
For full text of H-statements mentioned in this section, see section 16	




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2.2 GHS Label elements, including precautionary statements	
i	Pictogram : 
ii	Signal word : Warning
iii	Hazard Statement(s)
	H302 : Harmful if swallowed
	H315 : Causes skin irritation
	H319 : Causes serious eye irritation
	H401 : Toxic to aquatic life
iv	Precautionary Statement(s)
	P264 : Wash skin thoroughly after handling
	P270 : Do not eat, drink or smoke when using this product.
	P280 : Wear protective gloves/ eye protection/ face protection.
	P301 + P312 : IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
	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.
	P321 : Specific treatment (see supplemental first aid instructions on the label).
	P330 : Rinse mouth.
	P332 + P313 : If skin irritation occurs: Get medical advice/ attention.
	P337 + P313 : If eye irritation persists: Get medical advice/ attention.
	P362 : Take off contaminated clothing and wash before reuse.
	P501 : Dispose of contents/ container to an approved waste disposal plant.



2.3 Hazards not otherwise classified (HNOC) or not covered by GHS									
 <p>NFPA Scale (0-4)</p>	<table border="1"> <tr> <td>Health</td> <td>2</td> </tr> <tr> <td>Flammability</td> <td>0</td> </tr> <tr> <td>Physical Hazard</td> <td>0</td> </tr> <tr> <td>Personal Protection</td> <td>X</td> </tr> </table> <p>HMIS Rating (0-4)</p>	Health	2	Flammability	0	Physical Hazard	0	Personal Protection	X
Health	2								
Flammability	0								
Physical Hazard	0								
Personal Protection	X								



3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances	
i	Molecular Weight : 166.01 g/mol
ii	Constituent Elements : K (23.55%) I (76.45%)

4. FIRST AID MEASURES

4.1 Symptoms	
i	Most important symptoms and effects, both acute and delayed Irritation, Nausea, Head ache, Shortness of breath
ii	Indication of any immediate medical attention & special treatment needed If seeking medical attention, provide SDS document to physician.
4.2 Description of first aid measures	
i	Inhalation : Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult, give oxygen.
ii	Ingestion : Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.
iii	Skin contact : Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation persists or if concerned
iv	Eye contact : Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.



5. FIRE FIGHTING MEASURES

5.1 Extinguishing media	
i	Suitable extinguishing agents : If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
ii	Special hazards arising from the substance or mixture : Combustion products may include Hydrogen iodide, Potassium oxides, carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors
iii	Advice for firefighters : Use NIOSH-approved respiratory protection/breathing apparatus.
iv	Additional information : The product itself does not burn.





6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment & emergency procedures	
	Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation.
6.2 Environmental precautions	
	Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Small quantities may be flushed to drains with plenty of water.
6.3 Methods and material for containment and cleaning up	
	If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor.
6.4 Reference to other sections	
	For disposal see section 13



7. HANDLING AND STORAGE

7.1 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. For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities	
	Keep container tightly closed in a dry and well-ventilated place. Air, light, and moisture sensitive. Store under inert gas.
7.3 Specific end use(s)	
	Apart from the uses mentioned in section 1.2 the product has applications in preparation of pharmaceutical API's & Formulations, it is an important chemical in film photography, it is a component in some disinfectants and hair treatment chemicals, Potassium iodide is a component in the electrolyte of dye sensitized solar cells (DSSC) along with iodine, the product finds its most important applications in organic synthesis mainly in the preparation of aryl iodides





8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters					
Component	CAS No.	Value	Control Parameter	Basis	
Potassium Iodide	76811-11-0	TWA	0.01 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)	
Remarks	Upper Respiratory Tract irritation, Hypothyroidism Not classifiable as a human carcinogen				
8.2 Exposure Controls					
i	Appropriate engineering controls				
	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Use under a fume hood.				
ii	Personal protective equipment				
(a)	Eye / face protection				
	Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).				
(b)	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.				
(c)	Body 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.				
(d)	Respiratory protection				
	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).				
(e)	Control of environmental exposure				
	Do not let product enter drains.				





9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	White Crystalline Powder	Explosion limit	Not determined
Odour	Odourless	Vapour pressure (mm Hg)	1 @ 745° C (1,373° F)
Odour threshold	Not determined	Vapour density	Not determined
pH-value	6 - 9.2	Relative density	Not determined
Melting/Freezing point	681° C (1,258° F)	Solubilities	Soluble in water
Boiling point	1330° C (2,430° F)	Partition coefficient (n-octanol/water)	Not determined
Flash Point	Not determined	Auto/Self-ignition temperature	Not determined
Evaporation rate	Not determined	Decomposition temperature	Not determined
Flammability	Not determined	Viscosity	Not determined
Density	3.13 g/cm ³ at 20° C	Poison Class	(CH) 4



10. STABILITY & REACTIVITY

i	Reactivity	: Non-reactive under normal conditions
ii	Chemical stability	: If kept under long exposure to air becomes yellow due to release of iodine. No decomposition if used and stored according to specifications.
iii	Possible hazardous reactions	: None under normal processing
iv	Conditions to avoid	: Exposure to light, incompatible materials, tin / tin oxides
v	Incompatible material	: Strong reducing agents, Nickel, Strong acids, and its alloys, Steel (all types and surface treatments), Aluminium, Alkali metals, Brass, Magnesium, Zinc, Cadmium, Copper
vi	Hazardous decomposition products	: Oxides of the contained metal and halogen, possibly also free, or ionic halogen release. Hazardous Polymerization will not occur

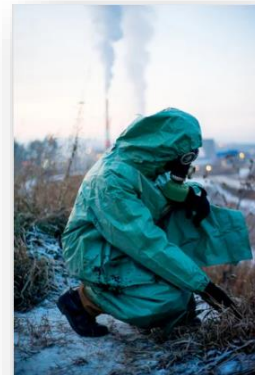


11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity		
i	Oral: Potassium Iodide (7681-11-0)	LD50 Rat: 285 mg/kg
ii	Chronic Toxicity	No additional information



11.2 Corrosion Irritation		
i	Dermal: Potassium Iodide (7681-11-0)	Rabbit: causes irritation
ii	Ocular: Potassium Iodide (7681-11-0)	Rabbit: causes irritation
iii	Skin Sensation	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals
iv	Single Target Organ (STOT)	No additional information
v	Numerical Measures	No additional information
vi	Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by IARC, NTP, OSHA
vii	Mutagenicity	No additional information
viii	Reproductive Toxicity	No additional information
11.3 Additional information		
Prolonged exposure to iodides may produce iodism in sensitive individuals. Symptoms of exposure include: skin rash, running nose, headache and irritation of the mucous membrane. For severe cases the skin may show pimples, boils, hives, blisters and black and blue spots. Iodides are readily diffused across the placenta. Neonatal deaths from respiratory distress secondary to goitre have been reported. Iodides have been known to cause drug-induced fevers, which are usually of short duration.		
Liver - Irregularities - Based on Human Evidence		



12. ECOLOGICAL INFORMATION

12.1 Toxicity			
i	Fish LC 50	Oncorhynchus mykiss (rainbow trout)	2,190 mg/l - 96 hours
ii	Crustacea LC 50	Zebra Mussel (Dreissena polymorpha)	220 – 313 mg/l, 24 hours
iii	Other aquatic invertebrates EC 50	Daphnia	2.7 mg/l - 24 hours
12.2 Persistence and degradability			
No data available			
12.3 Bio accumulative potential			
Not Bio accumulative			
12.4 Mobility in Soil			
No data available			
12.5 Results of PBT and vPvB assessment			
No data available			
12.6 Other adverse effects			
No data available			





13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal recommendation's

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

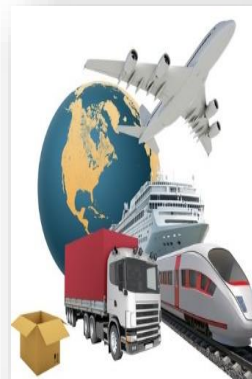


14. TRANSPORT INFORMATION

i	DOT	Department of transportation	Not dangerous goods
ii	IMDG	International maritime dangerous goods	Not dangerous goods
iii	IATA	International air transport association	Not dangerous goods

15. REGULATORY INFORMATION

i	REACH No.	The registration is envisaged for a later registration deadline
ii	SARA 302	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
iii	SARA 313	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
iv	SARA 311/312 Hazard	Immediate Acute Health Hazard Delayed Chronic Health Hazard



16. OTHER INFORMATION

16.1 NFPA Rating

i	Health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
ii	Fire hazard	: 0 - Materials that will not burn under typical dire conditions, including intrinsically non-combustible materials such as concrete, stone, and sand.
iii	Reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.

16.2 HMIS Rating

i	Health	: 2 Moderate Hazard - Temporary or minor injury may occur
ii	Flammability	: 0 Minimal Hazard - Materials that will not burn
iii	Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
iv	Personal Protection	: E - Safety glasses, Gloves, Dust respirator



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16.3 Further Information

The above information is derived from the available literature & believed to be correct but may not be complete & conclusive. The company shall not be responsible for any damage resulting from handling or usage of the product. The information shall be used only as a guide.

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.