



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION


1.1 Product identifiers	
i	Product Name : Potassium Iodate
ii	Chemical Formula : KIO_3
iii	CAS No. : 7758-05-6
iv	EC No. : 231-831-9
v	HSN Code : 28299030
vi	Hazardous : Yes
vii	Content : Minimum 99%
viii	Appearance : White crystalline powder
1.2 Relevant identified uses of the substance	
i	Identified uses : Laboratory chemicals, Food, Animal Feed product use.
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 / 7046456789
iv	Email : contact@samratpharmachem.in
v	Webpage : www.samratpharmachem.com
1.4 Emergency Number	
	Emergency Phone : +91-7045456789 / 7046456789



2. HAZARD IDENTIFICATION

2.1 Classification of substance			
i	H272	Oxidizing Solids	: May intensify fire; oxidizer (Category 2)
ii	H302	Acute Oral Toxicity	: Harmful if swallowed. (Category 4)
iii	H319	Serious Eye irritation	: Causes serious eye irritation (Category 2)



2.2 GHS Label elements, including precautionary statements	
i	Pictogram : 
ii	Signal word : Danger
iii	Hazard Statement(s)
	H272 : May intensify fire; oxidizer
	H302 : Harmful if swallowed.
	H319 : Causes serious eye irritation.
iv	Precautionary Statement(s)
	P210 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P220 : Keep away from clothing and other combustible materials.
	P221 : Take any precaution to avoid mixing with combustibles
	P264 : Wash exposed skin thoroughly after handling.
	P270 : Do not eat, drink or smoke when using this product.
	P280 : Wear protective clothing, gloves, eye & face equipment
	P301+ P312 : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
	P305 + P351 + P338 : IF IN EYES: Rise cautiously with water for several minutes. Remove contact lenses in present.
	P330 : IF SWALLOWED: rinse mouth.
	Supplemental Hazard statement : None



2.3 Hazards not otherwise classified (HNOC) or not covered by GHS	
No data available	

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances	
	Molecular Weight : 214.001 g/mol
	Constituent Elements : KIO ₃



4. FIRST AID MEASURES

4.1 Symptoms	
i	Most important symptoms and effects, both acute and delayed
	Eye Burn / Irritation, Repeated skin exposure can cause absorption which may lead to health hazards, Gastrointestinal complains & Possible inflammation of respiratory track, risk of lung oedema. Ingestion may cause vomiting & blood pressure drop.
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 : If inhaled, move victim to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
ii	Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth out with water. If you feel still feel unwell, immediately make victim drink water (two glasses at least). Consult a doctor.
iii	Skin contact : Take off immediately all contaminated clothing. Wash skin with plenty of water. Cover the irritated skin with an emollient. If skin irritation occurs: Get medical advice/attention.
iv	Eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.



5. FIRE FIGHTING MEASURES

5.1 Extinguishing media	
i	Suitable extinguishing agents : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
	Unsuitable extinguishing agents : For this substance/mixture no limitations of extinguishing agents are given.
ii	Special hazards arising from the substance or mixture : Hydrogen iodide, Potassium oxides, Not combustible. Fire may cause evolution of: hydrogen iodide Has a fire-promoting effect due to release of oxygen. Ambient fire may liberate hazardous vapours.
iii	Special remarks on Explosion Hazard : No Risk of explosion with: oxidisable substances, combustible substances, Powdered metals, Sulfides, phosphorus sulfur
iv	Advice for firefighters : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
v	Additional information : No additional information available





6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment & emergency procedures	
	Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert.
6.2 Environmental precautions	
	Do not let product enter drains. Use non-sparking tools and equipment. Pick up spill for recovery or disposal and place in a closed container.
6.3 Methods and material for containment and cleaning up	
	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions. Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.



7. HANDLING AND STORAGE

7.1 Precautions for safe handling	
	Avoid raising dust. Use earthed equipment. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep container tightly closed. Hygiene measures: Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
7.2 Conditions for safe storage, including any incompatibilities	
	Storage conditions: Tightly closed. Do not store near combustible materials. Recommended storage temperature see product label. Storage class: Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials
7.3 Specific end use(s)	
	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated





8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters	
	Ingredients with workplace control parameters
	No data available
8.2 Exposure Controls	
i	<i>Appropriate engineering controls</i>
	Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.
ii	<i>Personal protective equipment</i>
(a)	Eye / face protection
	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
(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
	Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P2 The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
(e)	Control of environmental exposure
	Do not let product enter drains.



9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	Form: Crystalline solid Colour: White	Explosiveness	Non explosive
Odour	odourless	Vapour pressure	0 hPa (25 °C, Calculated)
Odour threshold	Not Applicable	Relative vapour density at 20°C	3.52 (25 °C)
pH-value	6	Relative density	No data available
Melting/Freezing point	560 °C at 975 hPa	Solubilities	Moderately soluble in water. Water: 7 g/100ml (25 °C) Ethanol: insoluble, 25 °C
Boiling point	735 °C (Calculated)	Partition coefficient (n-octanol/water)	log Pow: -1 at 25 °C - Bioaccumulation is not expected





Flash Point	Not determined	Auto/Self-ignition temperature	does not ignite
Evaporation rate	No data available	Decomposition temperature	> 560 °C
Flammability	Not flammable	Viscosity	Not determined
Density	3,98 g/cm ³ at 20 °C	Poison Class	Not determined

10. STABILITY & REACTIVITY

(a)	Reactivity	: Violent exothermic reaction with organic material and with combustible materials: risk of spontaneous ignition. Violent exothermic reaction with (strong) reducers: (increased) risk of fire/explosion. Violent to explosive reaction with (some) metal powders. Decomposes on exposure to temperature rise: oxidation which increases fire hazard.
(b)	Chemical stability	: The product is chemically stable under standard ambient conditions (room temperature) .
(c)	Possible hazardous reactions	: No data available
(d)	Conditions to avoid	: Avoid high temperatures exposure to direct sunlight, & avoid contact with incompatible materials
(e)	Incompatible material	: Strong reducing agents, powdered metals
(f)	Hazardous decomposition products	: Risk of explosion with: oxidisable substances combustible substances Powdered metals Sulfides phosphorus sulfur Alkali metals hydrides Cyanides arsenic carbon/soot Alkaline earth metals powdered aluminium metallic oxides Isocyanates Reducing agents Exothermic reaction with: Organic Substances



11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects			
	Oral	LD50 Rat	1200 mg / kg body weight
	Dermal	LD50 Rat	> 2000 mg / kg
11.2 Corrosion Irritation			
	Serious eye damage / irritation		Risk of permanent damage due to staining of the cornea.
	Respiratory or skin irritation		Sensitisation possible.
	Germ cell mutagenicity		No data available
	Carcinogenicity		No data available
	Reproductive Toxicity		No data available
11.3 Additional information			
i	No data available		





12. ECOLOGICAL INFORMATION

12.1 Toxicity			
i	Particulars	Type	Value
	Fish LC50	Oncorhynchus mykiss (rainbow trout)	350 mg/l
	Crustacea LC 50	Daphnia magna (planktonic crustacean)	> 100 mg/l 48 hour(s)
ii	Ecology – general	Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.	
iii	Ecology – air	Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).	
iv	Hazardous to aquatic environment – short term (acute)	Slight toxic to aquatic life	
v	Hazardous to aquatic environment – long term (chronic)	Not classified	
12.2 Persistence and degradability			
(a)	Persistence and degradability	Biodegradability: not applicable.	
(b)	Biodegradation	Not applicable	
12.3 Bio accumulative potential			
(a)	BCF – Other aquatic organisms	0.027 BCF	
(b)	Partition coefficient n-octanol/water (Log Kow)	-4.6296	
(c)	Bioaccumulative potential	Not bioaccumulative.	
12.4 Mobility in Soil			
(a)	Highly mobile in soil		
12.5 Results of PBT and vPvB assessment			
	No data available		
12.6 Other adverse effects			
	Not known		






13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal recommendation's	
i	General instructions
	Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.
ii	Product / Packaging disposal recommendations
	Avoid release to the environment



14. TRANSPORT INFORMATION

14.1 In accordance with ADR / IMDG / IATA / ADN / RID					
	ADR	IMDG	IATA	ADN	RID
i	UN Number				
	UN 1479	UN 1479	UN 1479	UN 1479	UN 1479
ii	UN proper shipping name				
	POTASSIUM IODATE	POTASSIUM IODATE	POTASSIUM IODATE	POTASSIUM IODATE	POTASSIUM IODATE
iii	Transport hazard class				
	5.1	5.1	5.1	5.1	5.1
iv	Hazardous class symbols				
					
v	Packing group				
	II	II	II	II	II
vi	Environment hazards: Dangerous for the environment				
	Yes	Yes	Yes	Yes	Yes
vii	Marine Pollutant				
	Yes	Yes	No	Yes	Yes
14.3 Transport in bulk according to annexure II of Marpol and the IBC Code					
	IBC Code		Not applicable		





15. REGULATORY INFORMATION

15.1	Regulations
i	WHMIS (Canada) : CLASS C Oxidizing material.
ii	OSHA regulation : Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

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.									
iv	OX : Material that possesses oxidizing property									
16.2 HMIS Rating		<table border="1"> <tr> <td>Health</td> <td>2</td> </tr> <tr> <td>Fire</td> <td>0</td> </tr> <tr> <td>Reactivity</td> <td>1</td> </tr> <tr> <td>Personal Protection</td> <td>E</td> </tr> </table>	Health	2	Fire	0	Reactivity	1	Personal Protection	E
Health	2									
Fire	0									
Reactivity	1									
Personal Protection	E									
i	Health : 2 - Moderate Hazard - Temporary or minor injury may occur									
ii	Flammability : 0 - Minimal Hazard - Materials that will not burn									
iii	Physical : 1 - 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.									
vi	Personal Protection : E - Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.									



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.

17. 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