Potassium iodate

Material Safety Data Sheet

(This document conforms to ISO 11014-1)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Supplier / Manufacturer:

KIMLEIGH CHEMICALS SA (PTY) LTD

Kimleigh Chemicals SA (Pty) Ltd
11 Jasper van der Westhuizen Street, Potchindustria, Potchefstroom, North West Province, 2531, South Africa.
Tel no: +27 (18) 293-1028 Fax no: +27 (18) 294-4079
Web: www.kimleigh.com Email: sales@kimleigh.co.za

Chemical Name: Potassium iodate

Molecular Formula: KIO_3

Product range: Animade

Chemical Family: Iodine

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance Name: Potassium iodate

Appearance: White to off-white powder.

Hazardous Ingredients:

Ingredients	Content	GHS Classification
Potassium iodate	99 %	H272 H315 H319 H335

3. HAZARD IDENTIFICATION

Physical State and Appearance: White to off-white powder.

GHS Classification:

H272	May intensify fire; oxidizer.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
P210	Keep away from heat / sparks / open flames / hot surfaces. - No smoking.
P220	Keep/Store away from clothing / combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P264	Wash face, hands and any exposed skin thoroughly after handling.
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P301+312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P302+352	IF ON SKIN: Wash with plenty of water.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

		present and easy to do. Continue rinsing.
	P333+313	If skin irritation or rash occurs: Get medical advice / attention.
	P337+313	If eye irritation persists: Get medical advice / attention.
	P362	Take off contaminated clothing and wash before reuse.
	P370+378	In case of fire: Use water for extinction.
	P501:	Dispose of contents / container in accordance with local / regional / national / international regulations.

Pictogram:

Signal word: Warning Oxidizing solid

Routes of Entry: Eye Contact. Inhalation. Ingestion. Absorbed through skin.

Potential Health Effects:

Eyes May cause eye irritation and local inflammation.

Skin May cause serious skin irritation.

Inhalation May cause serious irritation to respiratory tract.

Ingestion It may cause serious irritation and/or a burning sensation in the mouth, pharynx, esophagus and gastrointestinal tract.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS:
Not suspected.

MUTAGENIC EFFECTS:
Not suspected.

TERATOGENIC EFFECTS:
Not suspected.

4. FIRST AID MEASURES

General Advice: Consult a physician. Show this material safety data sheet to the doctor in attendance.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation persists.

Inhalation: If inhaled, move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion:	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Rinse mouth with water. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Products of Combustion:	Oxides of potassium, iodides.
Explosion Hazards in Presence of Various Substances:	Risks of explosion of the product in presence of static discharge: No. Risks of explosion of the product in presence of mechanical impact: No.
Fire Fighting Media and Instructions:	Small fire: Use dry chemicals, CO_2, alcohol-resistant foam or water spray. Large fire: Water spray or fog, alcohol-resistant foam. Use water spray to cool containers.
Protective Clothing (Fire):	Wear NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.
Special Remarks on Fire Hazards:	Prevent fire-fighting water from entering surface water or groundwater.
Special Remarks on Explosion Hazards:	Not explosion hazard but is a very strong oxidizing agent.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Avoid substance contact, ingestion and inhalation. Ensure adequate ventilation.
Environmental Protection Measures:	Do not allow to enter sewerage system.
Small Spill:	Wear personal protective equipment. Use appropriate tools and adsorptive material to contain and adsorb the spilled solution and dispose of in a convenient waste disposal container.
Large Spill:	Use appropriate tools and personal protective equipment. Stop leak if without risk. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dyke if needed. Absorb with liquid binding material like sand, universal binders. Call for assistance on disposal.

7. HANDLING AND STORAGE

Handling:	Handle with care in accordance with good industrial hygiene and safety practices. Avoid inhalation of dust. Avoid contact with eyes and skin and any form of ingestion. Wear suitable protective clothing such as overalls, boots, rubber gloves, goggles, nose and mouth protection and wash contaminated clothing daily. Wash thoroughly with soap and water after use or accidental skin contact. Do not eat, drink or smoke during

	use. Avoid contamination of food, foodstuffs, eating utensils and drinking water. Do not discharge product or residues into rivers, dams and canals.
Storage:	Store in a cool, dry and well ventilated place away from food, foodstuffs, combustible materials and incompatible substances. Close container tightly after opening. Store under lock and key and keep out of reach of children, uninformed persons and animals. Minimise dust generation. Access to water and eye wash facility should be available.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering controls:	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection:	Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the substance handled.
	Eyes Splash goggles / safety glasses with side shields.
	Body Body-covering clothing / full suit.
	Respiratory Respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
	Hands Gloves, nitrile rubber gloves.
	Feet Boots.
Hygiene Measures:	Handle in accordance with good industrial hygiene and safety practices. Remove and wash contaminated clothing. Wash hands after use and before eating or smoking. Wash promptly if skin becomes contaminated or wet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Appearance:	White to off-white powder.
Odour:	Odourless.
pH (50 g/ℓ H_2O solution):	± 6
Boiling Point:	> 100 ˚C
Freezing Point:	< 0 ˚C
Relative density (20 ºC):	3.93 g / cm^3
Melting point:	560 ℃
Vapour Density:	Not applicable.
Volatility:	Not applicable.

Odour Threshold:	Not applicable.
Evaporation Rate:	Not applicable.
VOC:	Not applicable.
Solubility in water (20 ºC)	Soluble in water.

10. STABILITY AND REACTIVITY

Stability and Reactivity:	The product is stable under recommended conditions of storage and use.
Conditions of Instability:	High temperatures. Store away from strong reducing agents.
Incompatibility with Various Substances:	Strong reducing agents, organic materials.
Hazardous Decomposition Products:	Oxides of potassium, oxygen.
Hazardous Polymerization:	Has not been reported.

11. TOXICOLOGICAL INFORMATION

Toxicity:	Acute oral toxicity (LD50) [MOUSE]: 531 mg/kg calculated.
Chronic Effects on Humans:	CARCINOGENIC EFFECTS: Not suspected. MUTAGENIC EFFECTS: Not suspected. TERATOGENIC EFFECTS: Target Organs: Thyroid, Blood, Bone marrow, Central Nervous System, Kidney.
Acute Effects on Humans:	Serious eye irritant. Serious skin irritant. Skin inflammation is characterized by itching, scaling, reddening or, occasionally blistering. Harmful if inhaled. Inhalation may cause serious irritation to respiratory tract. Symptoms can include irritation of nasal passages, sore throat, shortness of breath and coughing. Harmful if swallowed. It may cause serious irritation and/or a burning sensation in the mouth, pharynx, oesophagus and gastrointestinal tract.
Synergetic Products: (Toxicologically)	Not available.
Irritancy:	Draize Test: Not available.
Sensitization:	Not available.
Toxicity to Reproductive System:	Tests on laboratory animals for reproductive effects are cited in Registry of Toxic Effects on Chemical Substances (RTECS).

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

Phytotoxicity: Not available.

Mobility: Do not allow to enter water or soil.

13. DISPOSAL CONSIDERATIONS

Treatment: Consultation with a permitted waste disposal site (TSD) should be accomplished. Always contact a permitted waste disposal site (TSD) to assure compliance with all current, local, national, and Governmental regulations.

14. TRANSPORT INFORMATION

Land Transport: *ADR / RID*
UN Number: 1479 Class: 5.1 Packing group: II
OXIDIZING SOLID, N.O.S. (Potassium iodate)

Marine Transport: *IMDG*
UN Number: 1479 Class: 5.1 Packing group: II
OXIDIZING SOLID, N.O.S. (Potassium iodate)

Air Transport: *IATA*
UN Number: 1479 Class: 5.1 Packing group: II
OXIDIZING SOLID, N.O.S. (Potassium iodate)

Pictogram:

Warning

Oxidizing solid

Hazard Statements:

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15. REGULATORY INFORMATION

Republic of South Africa Regulations:

National Water Act 36 of 1998.
Occupational Health and Safety Act, 1993.
Environmental Conservation Act 73 of 1989.
Hazardous Substances Act, 1973.
Provincial Ordinances and Local By-laws.

16. OTHER INFORMATION

Emergency Contact:

KIMLEIGH CHEMICALS SA (PTY) LTD
TEL NO. +27 (18) 293-1028

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