



MATERIAL SAFETY DATA SHEET
Potassium Iodide: Iodate Based Electrolyte

EMERGENCY PHONE: (800) 424-9300 Chemtrec

Section 1 – Identification

Product Name: Potassium Iodide; Potassium Iodate Based Electrolyte
Synonyms: K1-N, Knollide, Potide; Iodic Acid, Potassium Salt
Chemical Family: Inorganic Salt (major components – Potassium Iodide, Potassium Iodate, Ethylene Glycol) in water
CAS #: 7681-11-0, 7758-05-6
Molecular Formula: Mixture of IK, IKO₃, HOC₂H₄OH in H₂O

Section 2 – Ingredients

Chemical	CAS #	%	PEL	TLV
Potassium Iodide	7681-11-0	3	Not established	Not established
Potassium Iodate	7758-05-6	<3	Not established	Not established
Ethylene Glycol	107-21-1	80	No data	No data
Water	14314-42-2	Remainder	None	None

Section 3 – Physical Data

Boiling Point: Approximately 1,330°C (IK); no data (IKO₃)
% Volatiles: 0
Solubility in Water: 127.5g/100g water at 273 K
Specific Gravity (H₂O = 1): Approximately 1.1
Freezing/Melting Point: Approximately 682°C (IK); 560°C (IKO₃)
Evaporation Rate (butyl acetate = 1): No data
Density: 3.13 (IK) 3.93 (IKO₃)
Vapor Pressure: No data
Appearance and Odor: Clear light liquid



Section 4 – Fire and Explosion Hazard Data

Flash Point (°F): No data
Flammable Limits in Air, % by volume: Lower: No data Upper: No data
Autoignition Temperature: No data
Extinguishing Media: Extinguishing agent appropriate to surrounding fire
Special Fire Fighting Procedures: N/A

Section 5 – Health Data

OSHA (PEL):
IK Not established
IKO₃ Not established
H₂O None

ACGIH/NOSH (TLV)
IK Not established
IKO₃ Not established
H₂O None

EFFECTS OF EXPOSURE – No Data

Chronic Effects - No data, but some initial animal tests show reproductive and behavior effects.

EMERGENCY AND FIRST AID PROCEDURES – No Data

Section 6 – Reactivity

Incompatibility: No data
Hazardous Decomposition Products: No data
Conditions to Avoid: No data
Stability: Stable
Hazardous Polymerizations: Will not occur

Other: No data



Section 7 – Environmental Information

RCRA Code:	No data
TSCA Registered:	No data
Spill and Leak Procedures:	Cover spill with dry sand, sweep or scoop up and place in clean container.
Waste Disposal:	Consult state, Local or Federal EPA regulations for proper disposal.

Section 8 – Protection Information

Ventilation Requirement:	Laboratory fume hood.
Respiratory Protection:	NIOSH/MSHA approved self-contained breathing apparatus for emergency use.
Protective Gloves:	Rubber.
Eye/Face Protection:	ANSI approved safety goggles.

Section 9 – Special Precautions

Handling and Storage:	Keep container tightly closed. Store in a cool, dry, dark, well ventilated area.
Other Precautions:	Lab coat and apron, flame and chemical resistant coveralls, eyewash capable of sustained flushing, safety drench shower, and hygienic facilities for washing.

Section 10 – Transportation Information – U.S. Department of Transportation

Per 49CFR	No data
Proper Shipping Name:	Potassium Iodide, Potassium Iodate in water
Hazardous Class:	No data
UN#:	Potassium Iodide – No data, Potassium Iodate – No data

Section 11 – Comments

This data is offered in good faith as typical values and not as product specification. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.