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MSDS No.: X20160
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Approved by: James A. Berch

MATERIAL SAFETY DATA SHEET

MSDS No.: X20160

Section 1: Chemical Product and Company Information

Product: IODINE POTASSIUM IODIDE SOLUTION

Synonyms: Iodine-Iodide Solution; Lugol's Dilute; Starch Test; Grams Iodine Stain

ChemTREC 24 Hour Emergency Phone Number (800) 424-9300

Section 2: Hazards Identification

Emergency Overview

WARNING! CORROSIVE!

HARMFUL IF INHALED OR SWALLOWED. CAUSES BURNS TO SKIN AND EYES.

Avoid contact with skin, eyes and mucous membranes.

When heated, produces iodine vapor.

Target organs: None known.

1 = Minimal	Health	3
2 = Moderate	Fire	0
3 = Serious	Reactivity	1
4 = Severe	Contact	2

HMS *

Section 3: Composition / Information on Ingredients

Chemical Name	CAS #	%	TEV Units (ACGIH 2001)
Iodine	7553-56-2	1.85%	STEL: C 0.1 ppm
Potassium Iodide	7681-11-0	3.05%	None established.
Water	7732-18-5	95.1%	None established.

Section 4: First Aid Measures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN CONTACT: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5: Fire Fighting Measures

General Information: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use flooding amounts of water during early stages of fire. When heated, emits violet colored fumes of iodine which are toxic and corrosive to metals and all body tissues.

Extinguishing Media: Carbon dioxide, dry chemical, water spray, alcohol foam.

Flash Point: N/A

Autoignition temperature: N/A

Explosion Limits: Lower: N/A Upper: N/A

Section 6: Accidental Release Measures

Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation. Recover for use if not contaminated. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water. Avoid runoff into storm sewers and ditches which lead to waterways.

0 = Minimal
1 = Slight
2 = Moderate
3 = Serious
4 = Severe



Section 7: Handling & Storage

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. For laboratory use only. Not for drug, food or household use. Keep out of reach of children. Handling: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale vapors, spray or mist. Wash thoroughly after handling. Remove and wash clothing before reuse. Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8: Exposure Controls / Personal Protection

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or facemask, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: Use a chemical fume hood and/or wear a NIOSH/MSHA-approved respirator.

Section 9: Physical & Chemical Properties

Physical state: Liquid.
Appearance: Deep, amber color.
Odor: Iodine odor.
pH: N/A
Vapor pressure (mm Hg): 14 (water)
Vapor Density (Air = 1): 0.7 (water)
Evaporation rate (butyl acetate = 1): < 1
Viscosity: N/A

Section 10: Stability & Reactivity

Chemical stability: Stable
Conditions to avoid: Excessive temperatures and heat to cause evaporation.
Incompatibilities with other materials: Contact of gaseous ammonia or its solutions with free iodine should be avoided to prevent the formation of the explosive "nitrogen iodide". Acetaldehyde, sodium azide, sodium hydride. Hazardous decomposition products: Free iodine.

Section 11: Toxicological Information

Effects of overexposure: Contact as fumes or solution is intensely irritating to eyes, skin and mucous membranes. May cause delayed lung injury. Ingestion of large quantities of this material causes abdominal pain, vomiting and diarrhea. In severe cases, purging, excessive thirst and circulatory failure may develop.

ORL-HUM LD50: 2-4 gm as iodine

HL-RAT LC50: N/A

SKH-RBT LD50: N/A

Section 12: Ecological Information

Data not yet available.

Section 13: Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contact with a licensed chemical disposal agency.

Section 14: Transport Information

UN/NA number: N/A

Shipping name: Not Regulated.

Hazard class: N/A

Packing group: N/A

Section 15: Regulatory Information

None listed.

Section 16: Additional Information

The information contained herein is furnished without warranty of any kind. Employees should use this information only as a supplement to other information generated by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards.

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