

SDS No: IX0160

9228

SAFETY DATA SHEET

KM00626

CORROSIVE STORAGE CODE WHITE

Section 1 Chemical Product and Company Identification Page E1 of E2



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KI02667F
KI01039AH

CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only
Not for drug food or household use

Product IODINE-POTASSIUM IODIDE SOLUTION

Synonyms Iodine-Iodide / Iodine Solution / Iodine / Iodine Lugol's Dilute / Gram s Iodine Solution / Iodine 2% / Dilute Lugol's Solution

Section 2 Hazards Identification

Signal word WARNING
Pictograms GHS07 / GHS09
Target organs Thyroid kidneys endocrine system skin, eyes reproductive system central nervous system



GHS Classification
Acute toxicity dermal (Category 4)
Acute toxicity inhalation (Category 4)
Aquatic toxicity, acute (Category 1)

GHS Label Information Hazard statement(s)

H312 Harmful in contact with skin
H332 Harmful if inhaled
H400 Very toxic to aquatic life

Precautionary statement(s)
P261 Avoid breathing mist/vapours/spray
P271 Use only outdoors or in a well-ventilated area
P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 IF ON SKIN Wash with plenty of water and soap
P312 Call a POISON CENTER or doctor if you feel unwell
P362+P364 Take off contaminated clothing and wash it before reuse
P304+P340 IF INHALED Remove person to fresh air and keep comfortable for breathing
P312 Call a POISON CENTER or doctor if you feel unwell
P391 Collect spillage
P501 Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations

Ca Prop 65 This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Water	7732-18-5	95.10%	231-791-2
Potassium iodide	7681-11-0	3.05%	231-659-4
Iodine	7553-56-2	1.85%	231-442-4

Section 4 First Aid Measures

INGESTION MAY BE HARMFUL IF SWALLOWED 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 HARMFUL IF INHALED Remove to fresh air If not breathing give artificial respiration If breathing is difficult, give oxygen Get medical attention Harmful if inhaled
EYE CONTACT MAY CAUSE IRRITATION 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 ABSORPTION. HARMFUL IN CONTACT WITH SKIN Remove contaminated clothing Flush thoroughly with mild soap and water If irritation occurs get medical attention Harmful in contact with skin

Section 5 Fire Fighting Measures

Extinguishing Media Use any media suitable for extinguishing supporting fire
General Information In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear Use water spray to keep fire-exposed containers cool
Specific Hazards: In fire conditions water may evaporate from this solution which may cause hazardous decomposition products to be formed as dust or fume

Section 6 Accidental Release Measures

Personal Precautions. Evacuate personnel to safe area Use proper personal protective equipment as indicated in Section 8 Provide adequate ventilation
Environmental Precautions Avoid runoff into storm sewers and ditches which lead to waterways
Containment and Cleanup 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

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. Keep out of reach of children. Use with adequate ventilation. Wash thoroughly after handling.

Handling: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale vapors, mist or spray. Wash thoroughly after handling. Remove and wash clothing before reuse.

Storage: Store in a cool, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Exposure Limits	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Iodine CAS # 7553-56-2	TWA 0.1 ppm ⁽¹⁾ / STEL 0.1 ppm ⁽¹⁾	STEL C 0.1 ppm ⁽¹⁾ / 1 mg/m ³	STEL C 0.1 ppm ⁽¹⁾ / 1 mg/m ³

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 face shield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Deep amber liquid	Evaporation rate (Water = 1): < 1	Partition coefficient (n-octanol/water): Not applicable
Odor: Characteristic odor	Flammability (solid/gas): Not applicable	Auto-ignition temperature: Not applicable
Odor threshold: Not applicable	Explosion limits: Lower / Upper: Not applicable	Decomposition temperature: Data not available
pH: Data not available	Vapor pressure (mm Hg): 14 [water]	Viscosity: Data not available
Melting / Freezing point: ~ 0 C (-32 F) [water]	Vapor density (Air = 1): 0.7 [water]	Molecular formula: Mixture
Boiling point: ~ 100°C (212 F) [water]	Relative density (Specific gravity): 1.0 [water]	Molecular weight: Mixture
Flash point: Not flammable	Solubility(ies): Complete in water	

Section 10 Stability & Reactivity

Chemical stability: Stable. **Hazardous polymerization:** Will not occur.

Conditions to avoid: Stable under recommended storage conditions. Excessive temperatures which cause evaporation.

Incompatibilities with other materials: Metals or unsaturated organic compounds, ammonia solutions or alkaline solutions of ammonia salts. Will form explosive nitrogen iodides when reacted with gaseous ammonia.

Hazardous decomposition products: Toxic iodine fumes.

Section 11 Toxicological Information

Acute toxicity (Oral-Rat): LD50 14,000 mg/kg [Iodine CAS # 7553-56-2]

Skin corrosion/irritation: Data not available

Serious eye damage/irritation: Data not available

Respiratory or skin sensitization: Inhalation rat 3.1 mg/m³ / 24 hour / 13 weeks - continuous [Iodine CAS # 7553-56-2]

Germ cell mutagenicity: Data not available

Carcinogenicity: Data not available

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Data not available

STOT-single exposure: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Symptoms include cough, wheezing and labored breathing. Symptoms may be delayed.

Ingestion: Causes abdominal pain, diarrhea, nausea and vomiting. Ingestion of levels of 2-3 grams of iodine may cause death.

Skin: Contact may cause redness and pain.

Eyes: Contact causes watering of the eyes, redness and pain.

Signs and symptoms of exposure: Effects of short-term exposure: Lachrymator. The substance is severely irritating to the eyes and the respiratory tract and is irritating to the skin. Inhalation of the vapor may cause asthma-like reactions. Inhalation of the vapor may cause lung edema. The effects may be delayed. Effects of long-term exposure: Repeated or prolonged contact may cause skin sensitization in rare cases. Repeated or prolonged inhalation exposure may cause asthma like syndrome. The substance may have effects on the thyroid. Specific data not available for this mixture. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS # NN1575000 [Iodine CAS # 7553-56-2]

Section 12 Ecological Information

Toxicity to fish: Very toxic to aquatic life.

Toxicity to daphnia and other aquatic invertebrates: No data available.

Toxicity to algae: No data available.

Persistence and degradability: No data available. **Bioaccumulative potential:** No data available.

Mobility in soil: No data available. **PBT and vPvB assessment:** No data available.

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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 contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: Not applicable	Shipping name: Not Regulated	Reportable Quantity: No	Marine pollutant: No
Hazard class: Not applicable	Packing group: Not applicable		
Exceptions: Not applicable	2016 ERG Guide #: Not applicable		

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the inventory list.

Component	TSCA	CERCLA (RQ)	RCRA code	DSL	NDSL
Iodine	Listed	Not listed	Not listed	Listed	Not listed
Potassium iodide	Listed	Not listed	Not listed	Listed	Not listed

Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered 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. NTP: National Toxicology Program; IARC: International Agency for Research on Cancer; OSHA: Occupational Safety and Health Administration; STOT: Specific Target Organ Toxicity; SE: Single Exposure; RE: Repeated Exposure; ERG: Emergency Response Guidebook.

