Safety Data Sheet
Verhoff's Iodine

Section 1 - Chemical Product and Company Identification

SDS Name Verhoff's Iodine
Catalog Numbers: SO-784
Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923
For information, call: 978-739-4883
Emergency Number: 800-424-9300
For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H316-Skin corrosion/irritation: 3
H372-Specific target organ toxicity, repeated exposure: 1
H402-Hazardous to the aquatic environment, acute hazard: 3

4% of the mixture consists of ingredients of unknown acute inhalation toxicity.

Pictograms or Hazard Symbols and Hazard Statement(s):

Signal Word: Danger

Hazard Statements:

H316-Causes mild skin irritation
H372-Causes damage to organs through prolonged or repeated exposure (target organs: thyroid, kidney, liver, and blood)
H402-Harmful to aquatic life

Precautionary Statements:

P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P270-Do not eat, drink, or smoke when using this product.
P273-Avoid release to the environment.
P314-Get medical advice/attention if you feel unwell.
P332+P313-If skin irritation occurs: Get medical advice/attention.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7553-56-2	Iodine	2 w/v
7681-11-0	Potassium Iodide	4 w/v
7732-18-5	Water	Balance

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek medical attention.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention.

Oral Exposure: If swallowed, seek immediate medical advice. Do not induce vomiting. Rinse mouth with water and drink small quantities of water (stop if the exposed person feels sick as vomiting may be dangerous).

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water-spray, or alcohol-resistant foam.

Hazardous Combustion Products: Potassium oxides, hydrogen iodide, irritating and toxic fumes and gases.

Flash Point: Not available
Autoignition Temperature: Not available

Explosion Limits, Lower: Not available
Upper: Not available
NFPA Rating: (estimated) Health: 2; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):
Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Store in a tightly closed container in a cool, dry, and well-ventilated area. Light sensitive. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate chemical-resistant protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Iodine CAS#7553-56-2	0.01 ppm TWA 0.1 ppm STEL	2 ppm IDLH 0.1 ppm Ceiling 1 mg/m3 Ceiling	0.1 ppm Ceiling 1 mg/m3 Ceiling
Potassium Iodide CAS#7681-11-0	0.01 ppm TWA	Not listed	Not listed

OSHA Vacated PELs: Iodine: 0.1 ppm Ceiling; 1 mg/m3 Ceiling

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Dark red-brown
Odor: Pungent
Vapor Pressure: Not available
Odor Threshold: Not available
Vapor Density: Not available
pH: Approx. 5.7-8.6
Relative Density: Not available
Melting point/freezing point: Not available
Solubility: Soluble in water
Boiling Point: Not available
Flash Point: Not available
Evaporation Rate: Not available
Flammability (solid, gas): Not applicable
Partition coefficient: n-octanol/water: Not available
Autoignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available
Specific Gravity/Density: Not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, excess heat, direct sunlight.
Incompatible Materials: Strong oxidizing agents, reducing agents, acids, alkalis, ammonia, finely powdered metals, alcohols, and copper.
Hazardous Decomposition Products: Potassium oxides, hydrogen iodide, irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#7553-56-2 Iodine: RTECS#: NN1575000
LD50 Oral: 315 mg/kg (rat)
LD50 Dermal: 1425 mg/kg (rabbit)
LC50 Inhalation: 4.588 mg/L 4h (rat)

Carcinogenicity: Iodine CAS#7553-56-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#7681-11-0 Potassium Iodine: RTECS#: TT2975000
LD50 Oral: 2779 mg/kg (rat)
LD50 Dermal: >2000 mg/kg (rat)
LC50 Inhalation: Not listed

Carcinogenicity: Potassium Iodine CAS#7681-11-0 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation, and eye.

Epidemiology: Not available.
Teratogenicity: Not available.
Reproductive Effects: Exposure to excessive amounts of iodine during pregnancy is capable of producing fetal hypothyroidism. Iodine-containing drugs have been associated with fetal goiter.
Developmental Effects: Not available.
Neurotoxicity: Not available.
Mutagenicity: Not available.
Specific Target Organ Toxicity, Single Exposure: Not available.
Specific Target Organ Toxicity, Repeated Exposure: Thyroid, kidney, liver, and blood.

Symptoms associated with exposure: Prolonged exposure may cause skin rash, runny nose, headache, irritation to mucous membranes, stomach irregularities. May cause damage to organs through prolonged or repeated exposure. Iodides are readily diffused across the placenta. May cause harm to breast-fed children.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains. Harmful to aquatic life.

CAS#7553-56-2 Iodine:
LC50, freshwater fish: 1.67 mg/L 96h static (oncorhynchus mykiss)(rainbow trout)
EC50, water flea: 0.55 mg/L 48h static (daphnia magna)
ErC50, algae: 0.13 mg/L 72h (desmodesmus subspicatus)(green algae)
EC50, microtox: 280 mg/L 3h

CAS#7681-11-0 Potassium Iodide:
LC50, freshwater fish: 3780 mg/L 96h static (onchorhynchus mykiss)(rainbow trout)
EC50, water flea: 7.5 mg/L 48h (daphnia magna)

Persistence and degradability: Not available.
Bio-accumulative potential: Not available.
Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT
Non-Regulated

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 12-1-23

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Rowley Biochemical, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages, howsoever arising, even if Rowley Biochemical, Inc. has been advised of the possibility of such damages.