Safety Data Sheet

Iodine Tincture

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Iodine Tincture

Synonyms/Generic Names: None

SDS Number: 361.00

Product Use: For Educational Use Only

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Contact: Ward's Science
5100 West Henrietta Rd.
PO Box 92912-9012
Rochester, NY 14692
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Flammable liquid, Target Organ Effect, Toxic by inhalation, Harmful by ingestion, Harmful by skin absorption, Skin sensitizer, Corrosive, Teratogen

Target Organs: Thyroid, Kidney, Endocrine system, Skin, Eyes, Reproductive system, Central nervous system, Liver, Heart

Signal Word: Warning

Pictograms:

GHS Classification:

Flammable liquids	Category 2
Skin irritation	Category 2
Eye irritation	Category 2A
Skin sensitization	Category 1

GHS Label Elements, including precautionary statements:

Hazard Statements:

H225	Highly flammable liquid and vapor.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Precautionary Statements:

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280	Wear protective gloves.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Potential Health Effects

Eyes	Causes eye irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Ingestion	May be harmful if swallowed.

NFPA Ratings

Health	1
Flammability	3
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	1
Fire	3
Reactivity	0
Personal	H

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Iodine	1-5	7553-56-3	231-422-4	I_2	253.81 g/mol
Sodium Iodine	1-5	7681-82-5	231-69-3	NaI	149.89 g/mol
Water	35-58	7732-18-5	231-791-2	H_2O	18.00 g/mol
Ethyl Alcohol	40-55	64-17-5	200-578-6	C_2H_5OH	46.07 g/mol

4. FIRST-AID MEASURES

Eyes	In case of eye contact, rinse with plenty of water and seek medical attention.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	**Do Not Induce Vomiting!** Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is flammable. Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Use appropriate media for adjacent fire. Cool unopened containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (hydrogen iodide, sodium oxides, carbon oxides) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling
See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols. Keep away from sources of ignition. No smoking. Take measure to prevent the buildup of electrostatic charge.

Conditions for safe storage, including any incompatibilities
Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Ethyl Alcohol	1000 ppm 1900 mg/m^3	REL	NIOSH
	1000 ppm 1900 mg/m^3	PEL	OSHA
	1000 ppm 1880 mg/m^3	STEL	ACGIH
	3300 ppm	IDLH	OSHA
Iodine	0.01 ppm 0.1 mg/m^3	TLV	ACGIH
	0.1 ppm 1 mg/m^3	STEL	ACGIH
	0.1 ppm 1 mg/m^3	STEL	OSHA
	0.1 ppm 1 mg/m^3	STEL	NIOSH

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
Other	Not Available

Other Recommendations
Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Reddish-brown liquid.
Odor	Strong.
Odor threshold	The highest known value is 100 ppm (ethyl alcohol).
pH	Not Available
Melting point/freezing point	May start to solidify at -114.1°C (-173.4°F) based on data for: ethyl alcohol.
Initial boiling point and boiling range	Not Available
Flash point	CLOSED CUP: 22°C (71.6°F)
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	LOWER: 3.3% UPPER: 19%
Vapor pressure	The highest known value is 5.7 kPa (@ 20°C) (Ethyl alcohol 200 Proof). Weighted average: 4.02 kPa (@ 20°C)
Vapor density	The highest known value is 1.59 (Air = 1) (ethyl alcohol). Weighted average: 1.11 (Air = 1)
Density	0.95 - 1.0 (Water = 1)
Solubility (ies)	Easily soluble in cold water, hot water. Soluble in methanol, diethyl ether, acetone.
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	363°C (685.4°F)
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Heat, flames, sparks.
Incompatible Materials	Strong oxidizing agents, reducing agents, metals, acids, alkalis.
Hazardous Decomposition Products	Hydrogen iodine, sodium oxides, carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	Not Available

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	A4: Not classifiable for human or animal (ethyl alcohol).
NTP	No components 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 components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Irritation, redness.
Eyes	Irritation, redness, watering eyes.
Respiratory	Irritation, coughing.
Ingestion	Irritation, nausea, vomiting, diarrhea.

Chronic Toxicity	Not Available
Teratogenicity	Proven for human (ethyl alcohol).
Mutagenicity	Mammalian somatic cells (ethyl alcohol).
Embryotoxicity	Not Available
Specific Target Organ Toxicity	May cause damage to blood, kidneys, liver, upper respiratory tract, central nervous system, thyroid.
Reproductive Toxicity	Male and female system toxin (ethyl alcohol).
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	Not Available
Aquatic Invertebrate	Not Available
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1993, Flammable liquids, n.o.s., (ethanol and iodine), 3, pg II
TDG	UN1993, Flammable liquids, n.o.s., (ethanol and iodine), 3, pg II
IMDG	UN1993, Flammable liquids, n.o.s., (ethanol and iodine), 3, pg II
Marine Pollutant	No
IATA/ICAO	UN1993, Flammable liquids, n.o.s., (ethanol and iodine), 3, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Listed: Ethyl Alcohol
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Ethyl Alcohol
SARA 312	Ethyl Alcohol
SARA 313	Not Listed
WHMIS Canada	CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

16. OTHER INFORMATION

Revision	Date
Revision 1	01/30/2013