

SAFETY DATA SHEET

Preparation Date: 4/19/2018

Revision Date: 4/19/2018

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: I-147
Product Name: IODINE MONOCHLORIDE, SOLUTION

Other means of identification

Synonyms: No information available
CAS #: Mixture
RTECS # Not available
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Flammable liquids	Category 3

Label elements

Danger

Hazard statements

Harmful in contact with skin
 Harmful if inhaled
 Causes severe skin burns and eye damage
 Flammable liquid and vapor



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if swallowed
 Harmful to aquatic life with long lasting effects
 Harmful to aquatic life

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection
 Use only outdoors or in a well-ventilated area
 Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/.../equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
 In case of fire: Use CO₂, dry chemical, or foam to extinguish.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a POISON CENTER or doctor/physician.
 Call a POISON CENTER or doctor/physician if you feel unwell
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Immediately call a POISON CENTER or doctor/physician.
 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Acetic Acid, glacial	64-19-7	98.32
Iodine Monochloride	7790-99-0	1.68

4. FIRST AID MEASURES

First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.
- Skin Contact:** Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician immediately.
- Eye Contact:** Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.
- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Call a physician immediately.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If victim is conscious, give water or milk. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

- Symptoms**
- Severe skin and eye irritation or burns
 - May cause abdominal pain, nausea, vomiting, diarrhea
 - Burning sensation in the mouth and stomach
 - Can burn mouth, throat, and stomach
 - Thirst
 - Irritating to respiratory system
 - May cause bronchitis
 - May cause build-up of fluid in the lungs (pulmonary edema)
 - Dyspnea (Shortness of breath and difficulty breathing)
 - Coughing and wheezing
 - Sneezing
 - May cause central nervous system effects
 - Convulsions
 - Blackening and erosion of teeth

Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

- Suitable Extinguishing Media:** Carbon dioxide (CO₂). Dry chemical. Alcohol-resistant foam. Water spray.

- Unsuitable Extinguishing Media:** Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous Combustion Products:

Carbon Monoxide, Carbon Dioxide.

Specific hazards:

Flammable. May be ignited by heat, sparks or flames. Vapor may travel considerable distance to source of ignition and flash back. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks). Container explosion may occur under fire conditions or when heated. Fire may produce irritating, corrosive and/or toxic gases.

Special Protective Actions for Firefighters

Specific Methods:

Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk.

Methods for cleaning up

Neutralize with Sodium carbonate or Sodium bicarbonate. Dilute with water. Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Store at room temperature in the original container. Keep in a well-ventilated place. Store in a segregated and approved area. Store away from incompatible materials. Keep container tightly closed.

Incompatible Materials:

Oxidizing agents
Reducing agents
Metals
Bases
Acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Acetic Acid, glacial	64-19-7	10 ppm TWA 25 mg/m ³ TWA	10 ppm TWA 25 mg/m ³ TWA 15 ppm STEL 37 mg/m ³ STEL	15 ppm STEL 10 ppm TWA	None
Iodine Monochloride	7790-99-0	None	None	None	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Acetic Acid, glacial	64-19-7	10 ppm TWA 25 mg/m ³ TWA 15 ppm STEL 37 mg/m ³ STEL	10 ppm TWA 15 ppm STEL	10 ppm TWA 15 ppm STEL	10 ppm TWA 25 mg/m ³ TWA 15 ppm STEL 37 mg/m ³ STEL
Iodine Monochloride	7790-99-0	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Acetic Acid, glacial	64-19-7	15 ppm STEL 37 mg/m ³ STEL 10 ppm TWA 25 mg/m ³ TWA	10 ppm TWA 25 mg/m ³ TWA 15 ppm STEL 37 mg/m ³ STEL
Iodine Monochloride	7790-99-0	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:	Face-shield and Goggles
Skin and body protection:	Gloves Long sleeved clothing Chemical resistant apron If working with large quantities: Chemical resistant protective suit Boots
Respiratory protection:	Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures:	Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: Clear.	Color: Reddish-Brown.
Odor: Pungent. Vinegar-like. Sour.	Taste Vinegar. Sour.	Formula: No information available
Molecular/Formula weight: No information available	Flammability: Flammable	Flashpoint (°C/°F): 39 °C/102.2 °F 43 °C/109.4 °F (for Acetic Acid)
Flash Point Tested according to: Closed cup Open cup	Autoignition Temperature (°C/°F): 463 °C/865 °F (for Acetic acid)	Lower Explosion Limit (%): 4% (for Acetic acid)
Upper Explosion Limit (%): 19.9% (for Acetic acid)	Melting point/range(°C/°F): 16.6 °C/619. °F (for Acetic Acid)	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 118.1 °C/244.6 °F (for Acetic acid)	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: 1.049 (for Acetic acid)	pH: No information available	Vapor pressure @ 20°C (kPa): 1.5 (for Acetic acid)
Evaporation rate: No information available	Vapor density: 2.07 (for Acetic acid)	VOC content (g/L): No information available
Odor threshold (ppm): 0.48 (for Acetic Acid)	Partition coefficient (n-octanol/water): log Kow = -0.2 (for Acetic acid)	Viscosity: No information available
Miscibility: Miscible with alcohol Miscible with Benzene Miscible with Carbon tetrachloride Miscible with Glycerol	Solubility: Freely soluble in water Soluble in Acetone Soluble in Ether Practically insoluble in Carbon tetrachloride	

10. STABILITY AND REACTIVITY

Reactivity

Product code: I-147

Product name: IODINE
MONOCHLORIDE, SOLUTION

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Reacts violently with strong oxidizing agents, acetaldehyde, and acetic anhydride. It can react with metals, strong bases, amines, carbonates, hydroxides, phosphates, many oxides, cyanides, sulfides, chromic acid, nitric acid, hydrogen peroxide, carbonates, ammonium nitrate, ammonium thiosulfate, chlorine trifluoride, chlorosulfonic acid, perchloric acid, permanganates, xylene, oleum, potassium hydroxide, sodium hydroxide, phosphorus isocyanate, ethylenediamine, ethylene imine. Acetic acid vapors may form explosive mixtures with air. Reactions between acetic acid and the following materials are potentially explosive: 5-azidotetrazole, bromine pentafluoride, chromium trioxide, hydrogen peroxide, potassium permanganate, sodium peroxide, and phosphorus trichloride. Dilute acetic acid and dilute hydrogen can undergo an exothermic reaction if heated, forming peracetic acid which is explosive at 110 degrees C. Reaction between chlorine trifluoride and acetic acid is very violent, sometimes explosive.

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials:
 Oxidizing agents
 Reducing agents
 Metals
 Bases
 Acids

Hazardous decomposition products: carbon oxides.

Other Information

Corrosivity: Highly corrosive in the presence of stainless steel (304)
 Slightly corrosive in presence of aluminum
 Non-corrosive in presence of stainless steel (316)
 Moderate corrosive effect on bronze

Special Remarks on Corrosivity: No corrosion data on brass

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
 Skin. Ingestion. Inhalation. Eyes.

Acute Toxicity

Component Information

Acetic Acid, glacial	
CAS-No.	64-19-7

LD50/oral/rat = 3310 mg/kg Oral LD50 Rat
LD50/oral/mouse = 3530 mg/kg
LD50/dermal/rabbit = 1060 mg/kg Dermal LD50 Rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 11.4 mg/L Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = 5620 ppm 1 h
Other LD50 or LC50 information = No information available

Iodine Monochloride	
CAS-No.	7790-99-0

LD50/oral/rat = 50 mg/kg Oral LDLo Rat

LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = 500 mg/kg Dermal LDLo Rat
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Corrosive. Severe skin irritation. Causes skin burns. Can cause burning pain, inflammation and blisters. Harmful in contact with skin. May be absorbed through the skin in harmful amounts.

Eye Contact: Severe eye irritation. Causes lacrimation. Causes conjunctivitis. Causes conjunctival irritation. Causes eye burns. Causes corneal damage. May cause blurred or foggy vision. May cause permanent injury.

Inhalation Harmful by inhalation. Causes severe respiratory tract irritation. May cause chemical pneumonitis, bronchitis, and pulmonary edema. Severe exposure may result in lung tissue damage and corrosion (ulceration) of the mucous membranes. Inhalation may also cause rhinitis, sneezing, coughing, oppressive feeling in the chest or chest pain, dyspnea, wheezing, tachypnea, cyanosis, salivation, nausea, giddiness, muscular weakness.

Ingestion Causes digestive (gastrointestinal) tract irritation. Causes digestive or gastrointestinal tract burns. Symptoms include burning and pain of the mouth, throat, and abdomen, coughing, ulceration, bleeding, nausea, abdominal spasms, vomiting, hematemesis, diarrhea. May cause perforation of the digestive tract. May cause permanent damage of the esophagus and digestive tract. May Also affect the liver (impaired liver function), behavior (convulsions, giddiness, muscular weakness), and the urinary system - kidneys (Hematuria, Albuminuria, Nephrosis, acute renal failure, acute tubular necrosis). May also cause dyspnea or asphyxia. May also lead to shock, coma and death. May cause thirst.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Chronic exposure via ingestion may cause blackening or erosion of the teeth and jaw necrosis, pharyngitis, and gastritis. It may also behavior (similar to acute ingestion), and metabolism (weight loss).
Chronic exposure via inhalation may cause asthma and/or bronchitis with cough, wheezing, phlegm, and/or shortness of breath. Some researchers consider acetic acid capable of causing a syndrome known as "reactive airways dysfunction." or RADS. This syndrome resembles bronchial asthma, but differs in that exposure to small doses does not cause a reaction a few weeks after onset. It may also affect the blood (decreased leukocyte count), and urinary system (kidneys).
Repeated or prolonged skin contact may cause thickening, blackening, and cracking of the skin.

Sensitization: No information available.

Mutagenic Effects: Mutations in microorganisms
Experiments with bacteria and/or yeast have shown mutagenic effects
Cytogenic analysis - hamster ovary
Sister Chromatid Exchange (human lymphocyte)

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Acetic Acid, glacial	64-19-7	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Iodine Monochloride	7790-99-0	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: Teeth. Respiratory system. Lungs. Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Acetic Acid, glacial - 64-19-7

Freshwater Fish Species Data: 79 mg/L LC50 Pimephales promelas 96 h static 1 75 mg/L LC50 Lepomis macrochirus 96 h static 1
Water Flea Data: 65 mg/L EC50 Daphnia magna 48 h 47 mg/L EC50 Daphnia magna 24 h
Persistence and degradability: No information available
Bioaccumulative potential: No information available.
Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Acetic Acid, glacial	64-19-7	None	None	None	None
Iodine Monochloride	7790-99-0	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN2789
Proper Shipping Name: Acetic acid solution
Hazard Class: 8
Subsidiary Class: 3
Packing group: II
Emergency Response Guide Number: 132
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: A3, A6, A7, A10, B2, IB2, T7, TP2
Symbol(s): No information available
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

TDG (Canada)

UN-No: UN2789
Proper Shipping Name: Acetic acid solution
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant: No Information available
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

ADR

UN-No: UN2789
Proper Shipping Name: Acetic acid solution
Hazard Class: 8
Packing Group: II
Subsidiary Risk: No information available
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

IMO / IMDG

UN-No: UN2789
Proper Shipping Name: Acetic acid solution
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant: No information available
EMS: F-E
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

RID

UN-No: UN2789
Proper Shipping Name: Acetic acid solution
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

ICAO

UN-No: UN2789
Proper Shipping Name: Acetic acid solution
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

IATA

UN-No: UN2789
Proper Shipping Name: Acetic acid solution
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
ERG Code: 8F
Special Provisions: No information available
Description: UN2789, ACETIC ACID, GLACIAL, 8 (3), II

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Acetic Acid, glacial</i>	64-19-7	PresentACTIV E	Present KE-00013	Present	Present (2)-688	Present	Present	Present 200-580-7
<i>Iodine Monochloride</i>	7790-99-0	Present	Present KE-21028	Present	Present (1)-642	Present	Present	Present 232-236-7

U.S. Regulations*Acetic Acid, glacial*

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0004
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List: Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
 5000 lb RQ
 100 lb RQ

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Louisiana Reportable Quantity List for Pollutants: 5000lbfinal RQ
2270kgfinal RQ

California Directors List of Hazardous Substances: Present

FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1005

FDA - 21 CFR - Total Food Additives 133.123, 133.124, 133.169, 133.173, 133.178, 133.179, 172.814, 173.370, 184.1005, 73.85
Iodine Monochloride

New Jersey RTK Hazardous Substance List: 1027

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Acetic Acid, glacial	64-19-7	Not Listed	Not Listed	Not Listed	Not Listed
Iodine Monochloride	7790-99-0	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Acetic Acid, glacial	64-19-7	5000 lb final RQ 2270 kg final RQ	None	None	None	None
Iodine Monochloride	7790-99-0	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Acetic Acid, glacial	64-19-7	Not Applicable	Not Applicable
Iodine Monochloride	7790-99-0	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Acetic Acid, glacial
64-19-7 (98.32)

WHMIS 2015 Hazard Classification
Flammable liquids - Category 3: H226 Flammable liquid and vapour.; Corrosive to Metals - Category 1: H290 May be corrosive to metals. (potentially corrosive to metals; the supplier should be contacted for more information); Acute toxicity - Inhalation - Category 4: H332 Harmful if inhaled.; Health Hazard Not Otherwise Classified - Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

B3 Combustible liquid

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E Corrosive material

Components

Acetic Acid, glacial

WHMIS 1988

B3,E including 10-80% [Available data does not allow a precise evaluation of the threshold concentration from which solutions meet the B3 criterion], >80%
D2B 3-10%

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Acetic Acid, glacial	1 %
Iodine Monochloride	1 %

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Acetic Acid, glacial	64-19-7	Present	Not Listed
Iodine Monochloride	7790-99-0	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Acetic Acid, glacial	64-19-7	Not listed
Iodine Monochloride	7790-99-0	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Acetic Acid, glacial	64-19-7	Not listed
Iodine Monochloride	7790-99-0	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Acetic Acid, glacial	64-19-7	Flammable liquids - Flam. Liq. 3: H226 Flammable liquid and vapour.; Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (C >= 90 %) 607-002-00-6 Skin corrosion/irritation - Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (C >= 90 %); Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (25 % <= C <90 %); Skin corrosion/irritation - Skin Irrit. 2: H315 Causes skin irritation. (10 % <= C <25 %); Serious Eye Damage/Eye Irritation - Eye Irrit. 2: H319 Causes serious eye irritation. (10 % <= C <25 %) 607-002-00-6
Iodine Monochloride	7790-99-0	

EU - CLP (1272/2008)

R-phrases(s)

R35 - Causes severe burns.

R10 - Flammable.

S -phrase(s)

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S23 - Do not breathe gas/fumes/vapor/spray.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 1/2 - Keep locked up and out of the reach of children.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Acetic Acid, glacial	64-19-7	R10 C; R35	10%≤C<25% Xi; R36/38 90%≤C C; R35 25%≤C<90% C; R34	S: (1/2)-23-26-45
Iodine Monochloride	7790-99-0		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

C - Corrosive.

Flammable



16. OTHER INFORMATION

Preparation Date: 4/19/2018
Revision Date: 4/19/2018
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet