Iodine Monochloride - Wij's Solution

SECTION 1. IDENTIFICATION

Product Identifier	Iodine Monochloride - Wij's Solution
Other Means of Identification	None
Product Code(s)	IO2490
Product Family	Organic/Inorganic Solution
Recommended Use	Laboratory.
Restrictions on Use	Not for food, drug, pesticide or biocidal product use.
Supplier Identifier	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
Emergency Phone No.	CANUTEC CANADA, 613-996-6666, 24 Hours
SDS No.	1527

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Flammable liquid - Category 3; Skin corrosion - Category 1A; Serious eye damage - Category 1

Label Elements

Signal Word:
Danger

Hazard Statement(s):
Flammable liquid and vapour.
Causes severe skin burns and eye damage.

Precautionary Statement(s):
Prevention:
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN: Wash with plenty of water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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 CENTRE or doctor.

Storage:

Store in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Iodine Monochloride	7790-99-0	1 - 2	Chloroiodane, Iodine Chloride	
Acetic acid	64-19-7	Balance	Ethanoic acid, Methanecarboxylic acid	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. Seek immediate medical attention.

Skin Contact

Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Immediately call a Poison Centre or doctor.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor. Specific treatment is required.

Ingestion

Rinse mouth with water. Do not induce vomiting. Contact a physician.

First-aid Comments

Treat symptomatically. Symptoms made be delayed. Provide general supportive measures (comfort, warmth, rest). Do not leave the victim unattended.

Most Important Symptoms and Effects, Acute and Delayed

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Identification) and Section 11 (Toxicological Information) of this SDS.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice, consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. May travel a considerable distance to a source of ignition and flash back to a leak or open container. Heating increases the release of toxic vapour. Closed containers may rupture violently when heated releasing contents.
In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide. irritating fumes and acrid smoke.

Special Protective Equipment and Precautions for Fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full
protective gear.
Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources if safe to do so.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Neutralized with soda ash (Na2CO3), and place into container for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent accidental contact with incompatible chemicals. Use non-sparking tools. Never add water to a corrosive. Always add corrosives slowly to COLD water. Keep containers tightly closed when not in use or empty.

Conditions for Safe Storage

Store in an area that is: dry, well-ventilated, out of direct sunlight and away from heat and ignition sources.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	**TWA**	**STEL**	**TWA**	**Ceiling**	**8-hr TWA**	**TWA**
Acetic acid	10 ppm	15 ppm	10 ppm			
Iodine Monochloride	Not established		Not established			

Iodine Monochloride:
Consult local authorities for provincial exposure limits. Consult local authorities for state exposure limits.

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: butyl rubber, Viton®.

Respiratory Protection

For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an organic vapour cartridge, wear a full facepiece NIOSH approved air-purifying respirator with an acid gas cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Amber liquid.
Odour	Vinegar
Odour Threshold	Not available
pH	< 1
Melting Point/Freezing Point	17 - 18 ºC (63 - 64 ºF) (melting); 17 - 18 ºC (63 - 64 ºF) (freezing)
Initial Boiling Point/Range	118 ºC (244 ºF)
Flash Point	39 - 41 ºC (102 - 106 ºF)
Evaporation Rate	> 1 (diethyl ether = 1)
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	19.9% (upper); 4.0% (lower)
Vapour Pressure	11 mm Hg (1 kPa)
Vapour Density (air = 1)	2.10
Relative Density (water = 1)	1.06
Solubility	Soluble in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)

Other Information

Physical State	Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to Avoid

Incompatible materials. Open flames, sparks, static discharge, heat and other ignition sources.

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), metals (e.g. aluminum), alcohols (e.g. ethanol), amines (e.g. triethylamine), ammonia, oxidizing agents (e.g. peroxides), strong bases (e.g. sodium hydroxide), strong acids (e.g.

hydrochloric acid).

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide. poisonous gases and fumes.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Acetic acid	4653 ppm (rat) (4-hour exposure)	3530 mg/kg (rat)	1060 mg/kg (rabbit)
Iodine Monochloride	Not available	Not available	Not available

Skin Corrosion/Irritation

Causes severe skin burns.

Serious Eye Damage/Irritation

Causes serious eye damage based on skin corrosion information.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause severe nose and throat irritation.

Ingestion

May cause severe irritation or burns to the mouth, throat and stomach.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Acetic acid	Not evaluated	Not designated	Not Listed	Not Listed
Iodine Monochloride	Not Listed	Not designated	Not Listed	Not Listed

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	UN2920	Corrosive liquid, flammable, n.o.s. (Iodine Monochloride Solution)	8 (3)	II
Canadian TDG	UN2920	Corrosive liquid, flammable, n.o.s. (Iodine Monochloride Solution)	8 (3)	II

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By	Alphachem Limited
Phone No.	(905)-821-2995
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Date of Last Revision	April 10, 2018
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). GESTIS Substance Database (included by CCOHS).
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