



OCI Company Ltd.

Material Safety Data Sheet

MSDS

0.01N - Iodine

Section 1 - Chemical Product and Company Identification

TRADE NAMES : Iodine (Iodine-Iodide), Volumetric Solution

Recommended use : Not available

Restriction of use : Not available

Company Identification

Company : OCI Company Ltd.

Address : 94, Sogong-ro, Jung-gu, Seoul, KOREA

Tel No. : 82 - 2 - 727 - 9494

Section 2 - Hazards Identification

- | | |
|-------------------------------------|---------------|
| 1) Hazard Classification | Not available |
| 2) Warning signal | |
| Symbol | Not available |
| Signal word | Not available |
| Hazard statement | Not available |
| Prevention precautionary statements | Not available |
| 3) NFPA | |
| Health Rating | 0 |
| Flammability Rating | 0 |
| Reactivity Rating | 0 |

Section 3 - Composition, Information on Ingredients

COMPONENT:	Iodine	Potassium Iodide	Water
CAS No.:	7553-56-2	7681-11-0	7732-18-5
PERCENTAGE:	0.1~0.2	0.3~0.4	> 99.4

Section 4 - First Aid Measures

General information: Ensure that emergency personnel are aware of the material involved, and take precautions to protect themselves.

Ingestion: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

Inhalation: Move to fresh air. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact: Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation persists after washing. In case of irritation from airborne exposure, move to fresh air. Most important symptoms/effects, acute and delayed

Symptoms: Irritating to eyes, respiratory system and skin. Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically. Symptoms may be delayed.

Section 5 - Fire Fighting Measures

General fire hazards: Noncombustible, but will support combustion.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: This product is not flammable. Contact with combustible material may cause fire.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the MSDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures: Stop the flow of material, if this is without risk. Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

Section 7 - Handling and Storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Avoid inhalation of dust. Do not taste or swallow. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities: Keep away from food, drink and animal feeding stuffs. Store in tightly closed original container in a dry, cool and well-ventilated place.

Section 8 - Exposure Controls, Personal Protection

Control parameters

Occupational exposure limits

POTASSIUM IODIDE - Inhalable fraction and vapor.	TWA	0.01 ppm	
POTASSIUM IODIDE - Particulate.	ST ESL	50 µg/m3	
	AN ESL	5 µg/m3	
IODINE - Inhalable fraction and vapor.	TWA	0.01 ppm	
IODINE - Vapor and aerosol.	STEL	0.1 ppm	
IODINE	Ceil_Time	0.1 ppm	1 mg/m3
	Ceiling	0.1 ppm	1 mg/m3
	ST ESL	10 µg/m3	
	AN ESL	1 µg/m3	
	ST ESL	1 ppb	
	AN ESL	0.1 ppb	

Appropriate engineering controls No data available.

Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection: Wear protective gloves.

Other: Wear suitable protective clothing.

Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hygiene measures: Provide eyewash station and safety shower. Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash contaminated clothing before reuse.

Section 9 - Physical and Chemical Properties

Appearance

Physical state: Liquid

Form: Liquid

Color: Red brown

Odor: Characteristic

Odor threshold: No data available.

pH: No data available.

Melting point/freezing point: No data available

Initial boiling point and boiling range: No data available

Flash Point: No data available.

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): No data available.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): No carcinogenic components identified

Germ cell mutagenicity

In vitro: No mutagenic components identified

In vivo: No mutagenic components identified

Reproductive toxicity: May damage fertility or the unborn child.

Specific target organ toxicity - single exposure: Respiratory tract irritation.

Specific target organ toxicity - repeated exposure: Oral: Thyroid - May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Not classified

Other effects: None known.

Section 12 - Ecological Information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish: No data available.

Specified substance(s): POTASSIUM IODIDE

LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 896 mg/l Mortality

IODINE

LC 50 (Guppy (Poecilia reticulata), 24 h): 3 mg/l Mortality

LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 0.48 - 0.58 mg/l Mortality

Aquatic invertebrates: No data available.

Specified substance(s): POTASSIUM IODIDE

LC 50 (Zebra mussel (Dreissena polymorpha), 24 h): 220 - 313 mg/l Mortality

IODINE

LC 50 (Water flea (Daphnia magna), 96 h): 0.51 - 0.68 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish: No data available.

Aquatic invertebrates: No data available.

Toxicity to Aquatic Plants: No data available.

Persistence and degradability

Biodegradation: There are no data on the degradability of this product.

BOD/COD ratio: No data available.

Bioaccumulative potential

Bioconcentration factor (BCF): No data available on bioaccumulation.

Partition coefficient n-octanol / water (log Kow): No data available.

Specified substance(s): IODINE Log Kow: 2.49

Mobility in soil: The product is water soluble and may spread in water systems.

Other adverse effects: Toxic to aquatic organisms.

Section 13 - Disposal Considerations

Disposal instructions:

Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated packaging:

Since emptied containers retain product residue, follow label warnings even after container is emptied.

Section 14 - Transport Information

UN number : No data available

Proper shipping name : No data available

Transport Hazard class(es)

Class(es) : No data available

Label(s) : No data available

EmS No. : No data available

Packing group : No data available

Marine Pollutant : No data available

Section 15 - Regulatory Information**US federal regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)****US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund amendments and reauthorization act of 1986 (SARA)

Hazard categories

X Acute (Immediate)

X Chronic (Delayed)

X Fire

Reactive

Pressure Generating

SARA 302 Extremely hazardous substance None present or none present in regulated quantities.

SARA 304 Emergency release notification None present or none present in regulated quantities.

SARA 311/312 Hazardous chemical 500 lbs

SARA 313 (TRI reporting) None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US state regulations

US. California Proposition 65 No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act IODINE Listed

US. Massachusetts RTK - Substance List IODINE Listed

US. Pennsylvania RTK - Hazardous Substances IODINE Listed

US. Rhode Island RTK IODINE Listed

Inventory Status:

Australia AICS: On or in compliance with the inventory

Canada DSL Inventory List: On or in compliance with the inventory

EU EINECS List:	On or in compliance with the inventory
EU ELINCS List:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
EU No Longer Polymers List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

Section 16 - Other Information

Sources : KOSHA, National Emergency Management Agency

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