



# Shape Products

1127 - 57<sup>th</sup> Ave., Oakland, CA 94621-4427  
 (510) 534-1186 Fax (510) 534-1862  
[www.shapeproduct.com](http://www.shapeproduct.com)  
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## MATERIAL SAFETY DATA SHEET

**IODINE SOLUTION, 0.0200 N**

**MSDS# 2559**

### SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: IODINE SOLUTION, 0.0200 N  
 CHEMICAL FORMULA:  $I_2 + K I + H_2O$   
 SYNONYMS: TRI IODIDE ION SOLUTION ( $I_3^{-1}$ )

### SECTION 2. COMPOSITION INFORMATION ON INGREDIENTS

CHEMICAL NAMES	%	OSHA PEL	ACGIH TLV	CAS #
IODINE	<1.3	1mg/m <sup>3</sup> (0.1 ppm)	1mg/m <sup>3</sup> (0.1 ppm)	7553-56-2
POTASSIUM IODIDE	<3.5	N/A	N/A	7681-11-0
WATER	BALANCE	N/A	N/A	7732-18-5

### SECTION 3. HAZARDS IDENTIFICATION

#### PRECAUTIONARY RATINGS

0 = LEAST	HEALTH: 2
1 = SLIGHT	FIRE: 0
2 = MODERATE	REACTIVITY: 0
3 = HIGH	SPECIFIC HAZARD: N/A
4 = EXTREME	EMERGENCY CONTACT: CHEMTREC (800) 424-9300

#### EMERGENCY OVERVIEW

**CAUTION!** May cause irritation to skin and eyes. May cause irritation to respiratory and digestive tracts. May discolor skin on contact. Extreme exposure may result in thyroid disease.  
**CARCINOGENICITY:** None of the ingredients listed by IARC, NTP, OSHA.

### SECTION 4. FIRST AID MEASURES

**Eyes:** Flush opened eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention.  
**Skin:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation persists.  
**Ingestion:** Induce vomiting. If victim is conscious and alert, give large quantities of milk or water. Never give anything by mouth to an unconscious person. Get medical attention.  
**Inhalation:** Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

### SECTION 5. FIRE FIGHTING MEASURES

**Flash Point:** Not Available. **Method Used:** Not Available.  
**LFL:** Not Available. **UFL:** Not Available.  
**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide or chemical foam.  
**Fire and Explosion Hazards:** Emits toxic fumes of I-.  
**Fire Fighting Instructions:** Use normal procedures/instructions.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Evacuate the area of all unnecessary personnel. Ventilate area of leak or spill. Neutralize with sodium thiosulfate then with soda ash or sodium carbonate. Dispose down the drain with excess water if federal, state, and local regulations allowed. Else, containerize for proper disposal in compliance.

### SECTION 7. HANDLING AND STORAGE

**Handling:** wash hands thoroughly after handling. Avoid contact with eyes and skin.  
**Storage Requirements:** keep storage containers tightly closed in a cool dry place. No special handling, storage necessary.

### SECTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

**Engineering Controls:** Use adequate ventilation to keep exposure concentrations low.  
**Respiratory Protection:** Normal room ventilation is adequate. Check with supplier or regulatory agency for appropriate NIOSH approved respirators.  
**Skin Protection:** Chemical resistant gloves.  
**Eye Protection:** Safety glasses or goggles with side shields.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: CA. 100C	VAPOR PRESSURE (mmHg): N/A	pH: N/A
MELTING POINT: CA. 0C	VAPOR DENSITY (air=1): N/A	
SPECIFIC GRAVITY: 1.00 - 1.03	EVAPORATION RATE: >1	
SOLUBILITY (H <sub>2</sub> O): VERY SOLUBLE	APPEARANCE & ODOR: CLEAR BROWN LIQUID, WITH HALOGENS ODOR.	

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**SECTION 10. STABILITY AND REACTIVITY**

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**STABILITY:** STABLE UNDER NORMAL CONDITIONS.

**INCOMPATIBILITY:** STRONG REDUCING AGENTS SUCH AS SULFUR DIOXIDE. HIGHLY CORROSIVE IN PRESENCE OF ALUMINUM, ZINC and COPPER. MODERATE FIRE HAZARD BY SPONTANEOUS REACTION WITH ORGANIC COMPOUNDS. ACETYLENE AND ACETALDEHYDE CAUSES EXPLOSIVE REACTIONS WITH IODINE.

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR.

**HAZARDOUS DECOMPOSITION PRODUCTS:** HYDROGEN IODIDE, IODINE, IODIDE IONS (I<sup>-</sup>).

**CONDITIONS TO AVOID:** INCOMPATIBLES.

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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**RTECS#:**

**CAS# 7732-18-5:** ZC0110000

**CAS# 7681-11-0:** TT2975000

**CAS# 7553-56-2:** NN1575000

**LD50/LC50:**

**CAS# 7553-56-2:**

Oral, mouse: LD50 = 22 gm/kg;

Oral, rabbit: LD50 = 10 gm/kg;

Oral, rat: LD50 = 14 gm/kg

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**SECTION 12. ECOLOGICAL INFORMATION**

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**Environmental Fate:** Iodine is highly persistent in water, with a half-life of between 20 and 200 days. **Environmental Toxicity:** No information found.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**PREPARING WASTES FOR DISPOSAL:** Neutralize with sodium thiosulfate then with soda ash or sodium carbonate. Dispose down the drain with excess water if federal, state, and local regulations allowed. Else, containerize for proper disposal in compliance.

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**SECTION 14. TRANSPORT INFORMATION**

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NOT REGULATED BY D.O.T.

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**SECTION 15. REGULATORY INFORMATION**

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**TSCA Inventory List**

All of the ingredients (or their hydrate forms) are listed.

**CERCLA Reportable Quantity:** None.

**Sara Title Codes:** None.

**OSHA:**

This product is not considered to be highly hazardous by OSHA Hazard Communication Standard.

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**SECTION 16. OTHER INFORMATION**

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ALL INFORMATION RECOMMENDATIONS AND SUGGESTIONS APPEARING HEREIN CONCERNING OUR PRODUCT ARE BASED UPON TESTS AND DATA BELIEVED TO BE RELIABLE, HOWEVER IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE SAFETY, TOXICITY AND SUITABILITY FOR HIS/HER OWN USE OF THE PRODUCT DESCRIBED HEREIN. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED, THAT THE INFORMATION IS CURRENT, APPLICABLE & SUITABLE TO THEIR CONDITIONS. SINCE THE ACTUAL USE BY OTHERS IS BEYOND OUR CONTROL, NO GUARANTEE, EXPRESSED OR IMPLIED IS MADE BY SHAPE PRODUCTS AS TO THE EFFECTS OF SUCH USE, SHAPE PRODUCTS DOES NOT ASSUME ANY LIABILITY ARISING OUT OF USE, BY OTHERS OF THE PRODUCTS REFERRED TO HEREIN. NOR IS THE INFORMATION HEREIN TO BE CONSTRUED AS ABSOLUTELY COMPLETE SINCE ADDITIONAL INFORMATION MAY BE NECESSARY OR DESIRABLE WHEN PARTICULAR OR EXCEPTIONAL CONDITIONS OR CIRCUMSTANCES EXIST OF BECAUSE OF APPLICABLE LAWS OR GOVERNMENT REGULATIONS.