



LABORATORY CHEMICALS AND CONSUMABLES

# MATERIAL SAFETY DATA SHEET

## IODINE SOLUTION 0.1 N

### 1. Chemical Product and Company information.

**Product name:** Iodine Solution, 0.1N

**Contact Information:**

Radchem cc  
PO Box 166982  
Brackendowns  
Alberton 1454  
Telephone : **011 867 3726 / 2864**

### 2. Hazard Identification

Hazardous in case of skin contact (corrosive, irritant, sensitizer, permeator), of eye contact (irritant), of ingestion, of inhalation. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation.

### 3. Composition / information on ingredients

**CAS #:** Mixture

**Synonym:**

**Chemical Name:** Not applicable

**Chemical Formula:** Not applicable

### 4. First Aid Measures

**Eye Contact:** Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

**Skin Contact:** If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical got on the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.



**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:** Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

**Ingestion:** Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:** Not available.

## **5. Fire-fighting measures**

**Flammability of the Product:** Non-flammable

**Fire Hazards in Presence of Various Substances:** Not applicable

**Explosion Hazards in Presence of Various Substances:** Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:** Not applicable

**Special Remarks on Fire Hazards:** Not applicable

**Special Remarks on Explosion Hazards:** Not applicable

## **6. Accidental release measures**

**Small Spill:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large Spill:** Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

## **7. Handling and storage**

**Precautions:** Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material Do not ingest. Do not breathe gas/fumes/ vapour/spray. Never add water to this product In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes Keep away from incompatibles such as oxidizing agents, acids.

**Storage:** Oxidizing materials should be stored in a separate safety storage cabinet or room.

## **8. Exposure controls/personal protection**

**Engineering Controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:** Splash goggles. Lab coat. Vapour respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Vapour respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.



## **9. Physical and chemical properties**

**Physical state and appearance:** Liquid

**Odour:** Not available

**Taste:** Not available

**Colour:** Clear Brown (Dark)

**Boiling Point:** The lowest known value is 100°C (Water).

**Melting Point:** Not available

**Critical Temperature:** Not available

**Specific Gravity:** Weighted average: 1.04 (Water = 1)

**Vapour Density:** The highest known value is 0.62 (Air = 1) (Water)

**Volatility:** Not available

**Odour Threshold:** Not available

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water, methanol, diethyl ether, acetone

**Solubility:** Easily soluble in cold water, hot water. Soluble in methanol, diethyl ether. Partially soluble in acetone.

## **10. Stability and reactivity**

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available

**Incompatibility with various substances:** Reactive with acids. Slightly reactive to reactive with combustible materials, organic materials, metals.

**Corrosivity:** Slightly corrosive to corrosive in presence of steel, of aluminium, of zinc, of copper. Non-corrosive in presence of glass

**Special Remarks on Reactivity:** Reacts violently with water especially when water is added to the product. (Hydrogen chloride)

**Special Remarks on Corrosivity:** Not available

**Polymerization:** Will not occur.

## **11. Toxicological information**

**Routes of Entry:** Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion

**Toxicity to Animals:** Acute oral toxicity (LD50): 14000 mg/kg [Rat]. (Iodine).

**Chronic Effects on Humans:** DEVELOPMENTAL TOXICITY: PROVEN [Potassium Iodide] The substance is toxic to lungs, the nervous system, the reproductive system, mucous membranes, gastrointestinal tract, and upper respiratory tract.

**Other Toxic Effects on Humans:** Hazardous in case of skin contact (corrosive, irritant, sensitizer, permeator), of ingestion, of inhalation.



**Special Remarks on Toxicity to Animals:** Not available

**Special Remarks on Chronic Effects on Humans:** Not available

**Special Remarks on other Toxic Effects on Humans:** Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. (Hydrogen chloride)

## **12. Ecological information**

**Ecotoxicity:** Not available

**BOD5 and COD:** Not available

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** Not available

**Special Remarks on the Products of Biodegradation:** Not available

## **13. Disposal considerations**

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## **14. Transport information**

**DOT Classification:**

**Identification: :**

**Special Provisions for Transport:** Not available

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