IngredientDepot

Material Safety Data Sheet

Iodine Prilled 99.8% USP/ACS/EP

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Iodine
Synonyms: Iodine crystals; Iodine sublimed.
Country of Origin: Chile
Chemical Family: None Known.
Application: Industrial.

Distributed By:
Ingredient Depot

Prepared By: Ingredient Depot Compliance & Regulatory Affairs Dept.
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Concentration	LD50s and LC50s Route & Species:
Iodine CAS #: 7553-56-2	100%	Not available.

Note: No additional remark.

3. HAZARDS IDENTIFICATION

Potential Acute Health Effects: Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive), of eye contact (corrosive). Slightly hazardous in case of skin contact (permeator). The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to thyroid. The substance may be toxic to blood, kidneys, liver, skin, eyes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage.

4. FIRST AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention immediately.
Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get 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. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
Notes to Physician: Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE FIGHTING MEASURES

Flammability of the Product: Non-flammable
Auto-Ignition Temperature: Not applicable.
Flash Points: Not applicable.
Flammable Limits: Not applicable.
Products of Combustion: Not available.
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:
Ignition on contact with bromine, ... chlorine trifluoride, ...metals (powdered) + water, aluminum-titanium alloys + heat, metal acetylides, ... nonmetals, ... sodium phosphinate. Incandescent reaction with cesium oxide (above 150 deg C), bromine trifluoride, metal acetylides or carbides [e.g. barium acetylide (above 122 deg C), calcium acetylide (above 305 deg C), strontium acetylide (above 182 deg C), zirconium acetylide (above 400 degC)]. Magnesium burns vigorously when heated with iodine vapor. Iodine unites with fluorine at ordinary temperature with a luminous flame
Special Remarks on Explosion Hazards:
Explosive reactions with iodine and: hafnium powder + heat; tetraamine copper (II) sulfate + ethanol; trioxygen difluoride; polyacetylene (at 113 deg. C); potassium; sodium; butadiene+ ethanol +mercuric oxide.
NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 0, INSTABILITY 3
HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 0, REACTIVITY 3

6. ACCIDENTAL RELEASE MEASURES

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill: Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. 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.
Environmental Precautionary Measures: Prevent entry into sewers or streams, dike if needed. Consult local authorities.
Procedure for Clean Up: Ventilate area. Isolate hazard area and restrict access. Pick up solids and put in an appropriate sealed container for later disposal. Cover the spill area with an excess of reducing agent (sodium thiosulfate, bisulfate, or ferrous salts in 3M sulfuric acid) and then neutralize with soda ash. Collect slurry into approved containers.

7. HANDLING AND STORAGE

Handling: Keep container dry. Do not ingest. Do not breathe dust. 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, reducing agents, metals.
Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. **Gloves:** Appropriate chemical resistant gloves should be worn.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Vapor and dust 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.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

Exposure Limits:

STEL: 1 (mg/m3) from ACGIH (TLV) [United States] STEL: 0.1 (ppm) from ACGIH (TLV) [United States] TWA: 1 CEIL: 1 (mg/m3) from OSHA (PEL) [United States] TWA: 0.1 CEIL: 0.1 (ppm) from OSHA (PEL) [United States] STEL: 0.1 (ppm) [United Kingdom (UK)] STEL: 1.1 (mg/m3) [United Kingdom (UK)]Consult local authorities for acceptable exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid Prills with metallic lustre.
Colour: Violet-black Prills.
Odour: Pungent.
pH: 5.4
Specific Gravity: 4.98
Boiling Point: 184 °C / 363 °F
Freezing/Melting Point: 113.6 °C / 238 °F
Vapour Pressure: 0.3 mmHg at 20 °C.
Vapour Density: 8.8
Coefficient of Water/Oil: 0.00324
Solubility: Slightly soluble in water.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: Heat. Direct sunlight. Poor ventilation.
Materials to Avoid: Incompatible with ammonia, powdered metals, metals and strong reducing agents. Reaction can be violent or explosive with ammonium hydroxide, acetaldehyde, acetylene.
Hazardous Decomposition Products: Hydrogen iodide, Iodine.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Skin Contact/Absrorbtion: Harmful if absorbed through the skin. Causes skin burns. Rare instances of allergic reactions to topical iodine solutions have caused fever, skin eruptions and death.
Eye Contact: Causes severe eye irritation. May cause eye burns. Vapor or mist may cause irritation and severe burns.

Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. May cause epiphora, which is an excessive flow of tears.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause burns to the digestive tract. May be harmful if swallowed.

Acute/Chronic Exposure Effects: Chronic overexposure can lead to iodism, a mild toxic syndrome, with symptoms of salivation, nasal discharge, sneezing, conjunctivitis, fever, laryngitis, bronchitis, stomatitis, and various skin rashes. Long-term high level exposure will cause a reversible reduction in thyroid function.

Ceiling Limit	0,1 ppm- ONever surpass this limit	**Short Term Exposure Limit**	Not available
Carcinogenicity	Not available	**Sensitization to Product**	Not available
Teratogenicity	Possible	**Mutagenicity**	Not available
Synergistic Products	Not available	**Reproductive Toxicity**	Possible

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: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.
Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

TDG (Canada):
TDG Proper Shipping Name: Not Regulated.
Hazard Class: Not Applicable.
UN Number: Not Applicable.
Packing Group: Not Applicable.
Note: No additional remark.
Marine Pollutant: No.

DOT Classification:
Not regulated as Dangerous Goods.

IATA:
UN Number: UN3495
Proper Shipping Name: Iodine
Hazard Class: 8
Subsidiary Hazard Class: 6.1
Packing Group: III

IATA

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IMDG

15. REGULATORY INFORMATION

WHMIS Hazardous Class: D2A VERY TOXIC
MATERIALS CLASS E: CORROSIVE MATERIAL

U.S. (United-States):
Federal and State Regulations:
Illinois toxic substances disclosure to employee act: Iodine Rhode Island RTK hazardous substances: Iodine Pennsylvania RTK: Iodine Minnesota: Iodine Massachusetts RTK: Iodine Massachusetts spill list: Iodine New Jersey: Iodine California Director's List of Hazardous Substances: Iodine TSCA 8(b) inventory: Iodine

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

DSCL (EEC):
R38- Irritating to skin. R41- Risk of serious damage to eyes. S2- Keep out of the reach of children. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S39- Wear eye/face protection. S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):

Health Hazard: 3
Fire Hazard: 0
Reactivity: 0
Personal Protection: j

National Fire Protection Association (U.S.A.):

Health: 3
Flammability: 0
Reactivity: 0
Specific hazard:

Protective Equipment:
Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

16. OTHER INFORMATION

Additional Information:

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Disclaimer:

NOTICE TO READER:
Ingredient Depot, expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Ingredient Depot Sales Office.

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*****END OF MSDS*****