



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|--|--|
| 1.1 Product identifiers | |
| i | Product Name : Iodine Monochloride |
| ii | Chemical Formula : ICl |
| iii | CAS No. : 7790-99-0 |
| iv | EC No. : 232-236-7 |
| v | HSN Code : 28129000 |
| vi | Hazardous : Yes |
| vii | Content : Minimum 99.0% |
| viii | Appearance : Red brown heavy liquid |
| 1.2 Relevant identified uses of the substance | |
| i | Identified uses : Laboratory chemicals |
| 1.3 Details of Manufacturer | |
| i | Company : Samrat Pharmachem Limited |
| ii | Address : Plot No. A2/3444-3445, GIDC, Phase 4, Ankleshwar – 393002, Gujarat, India. |
| iii | Phone : +91-7045456789 / 7046456789 |
| iv | Email : contact@samratpharmachem.in |
| v | Webpage : www.samratpharmachem.com |
| 1.4 Emergency Number | |
| | Emergency Phone : +91-7045456789 / 7046456789 |




2. HAZARD IDENTIFICATION

| | |
|---|--|
| 2.1 Classification of substance | |
| <i>Classification according to Regulation (EC) No 1272/2008</i> | |
| i | H314 Skin corrosion : Causes severe skin burns and eye damage. (category 1A) |
| ii | H318 Serious eye damage : Causes serious eye damage (Category 1) |
| iii | H315 Skin Corrosion / Irritation : Causes skin irritation (Category 1A) |
| iv | H335 Specific Target Organ Toxicity (Respiratory) : May cause respiratory irritation; Single Exposure (Category 3) |
| v | H351 Carcinogenicity : Suspected of causing cancer. (Category 2) |





| 2.2 GHS Label elements, including precautionary statements | |
|--|--|
| i | Pictogram :  |
| ii | Signal word : Danger |
| iii | Hazard Statement(s) |
| | H314 : Causes severe skin burns and eye damage. |
| | H315 : Causes skin irritation |
| | H318 : Causes serious eye damage. |
| | H335 : May cause respiratory irritation; Single Exposure |
| | H351 : Suspected of causing cancer. |
| iv | Precautionary Statement(s) |
| | P261 : Avoid breathing dust / fumes / gas / mist / vapours / spray |
| | P271 : Use outdoors or in a well-ventilated area |
| | P280 : Wear protective clothing, gloves, eye & face equipment |
| | P301 + P330 + P331 : IF SWALLOWED: rinse mouth. DO NOT induce vomiting |
| | P303 + P361 + P353 : IF ON SKIN (or hair): Remove all contaminated clothing. Rise skin with water/shower |
| | P305 + P351 + P338 : IF IN EYES: Rise cautiously with water for several minutes. Remove contact lenses in present. |
| | P311 : Call poison center/ doctor |



2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Data not available

3. COMPOSITION / INFORMATION ON INGREDIENTS

| 3.1 Substances | |
|----------------|---------------------------------|
| | Molecular Weight : 162.36 g/mol |
| | Constituent Elements : ICI |



4. FIRST AID MEASURES

| | |
|--|--|
| 4.1 Symptoms | |
| i | Most important symptoms and effects, both acute and delayed |
| | Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. |
| ii | Indication of any immediate medical attention & special treatment needed |
| | If seeking medical attention, provide SDS document to physician. |
| 4.2 Description of first aid measures | |
| i | Inhalation : If inhaled, move victim to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. |
| ii | Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth out with water. If you still feel unwell, immediately make victim drink a slurry of activated charcoal in water (two glasses at most). Consult a doctor. |
| iii | Skin contact : Take off immediately all contaminated clothing. Wash skin with plenty of water. Cover the irritated skin with an emollient. If skin irritation occurs: Get medical advice/attention. |
| iv | Eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention. |



5. FIRE FIGHTING MEASURES

| | |
|--------------------------------|---|
| 5.1 Extinguishing media | |
| i | Suitable extinguishing agents : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| | Unsuitable extinguishing media : Do not use a heavy water stream. |
| ii | Special hazards arising from the substance or mixture : Hydrogen chloride gas, Hydrogen iodide, Not combustible. Fire may cause evolution of: iodine, Hydrogen chloride gas. Ambient fire may liberate hazardous vapours. |
| iii | Special remarks on Explosion Hazard : No data found |
| iv | Advice for firefighters : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. |
| v | Additional information : Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. |





6. ACCIDENTAL RELEASE MEASURES

| | |
|--|--|
| 6.1 Personal precautions, protective equipment & emergency procedures | |
| | Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. |
| 6.2 Environmental precautions | |
| | 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; dyke 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 SDS and with local authorities. |
| 6.3 Methods and material for containment and cleaning up | |
| | Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions. Take up with liquid-absorbent material. Dispose of properly. Clean up affected area. |
| 6.4 Reference to other sections | |
| | For disposal see section 13 |



7. HANDLING AND STORAGE

| | |
|---|---|
| 7.1 Precautions for safe handling | |
| | Use only under a chemical fume hood. Wear personal protective equipment/face protection. Avoid dust formation. Do not breathe (dust, vapor, mist, gas). Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Do not allow contact with water. |
| 7.2 Conditions for safe storage, including any incompatibilities | |
| | Keep refrigerated. Store under an inert atmosphere. Keep away from water or moist air. Protect from light. Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place. |
| 7.3 Specific end use(s) | |
| | Apart from the uses mentioned in section 1.2 the product has applications such as antimicrobial agent, chlorinating agent. |





8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|-------------------------------|--|
| 8.1 Control Parameters | No data found |
| 8.2 Exposure Controls | |
| i | <i>Appropriate engineering controls</i> |
| | Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. |
| ii | <i>Personal protective equipment</i> |
| (a) | <i>Eye / face protection</i> |
| | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses |
| (b) | <i>Skin Protection</i> |
| | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. |
| (c) | <i>Body Protection</i> |
| | Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |
| (d) | <i>Respiratory protection</i> |
| | Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. |
| (e) | <i>Control of environmental exposure</i> |
| | Do not let product enter drains. |



9. PHYSICAL & CHEMICAL PROPERTIES

| | | | |
|-------------------------------|--|--|----------------|
| Appearance | Form: low melting solid Colour: Red Brown | Specific gravity | 3.200 |
| Odour | Odourless | Vapour pressure | Not available |
| Odour threshold | Not determined | Relative vapour density at 20°C | Not available |
| pH-value | Not available | Relative density | Not available |
| Melting/Freezing point | 26 °C / 78.8 °F | Solubilities | Not available |
| Boiling point | 97 °C / 206.6 °F | Partition coefficient (n-octanol/water) | Not determined |
| Flash Point | 40 °C | Auto/Self-ignition temperature | Not available |





| | | | |
|-------------------------|------------------------|----------------------------------|----------------|
| Evaporation rate | Not determined | Decomposition temperature | Not available |
| Flammability | Not determined | Viscosity | Not determined |
| Density | 1.05 g/cm ³ | Poison Class | Not determined |

10. STABILITY & REACTIVITY

| | | |
|-----|----------------------------------|--|
| (a) | Reactivity | : Non-reactive under normal conditions. |
| (b) | Chemical stability | : If kept under long exposure to air the material shall evaporate releasing violet fumes. No decomposition if used and stored according to specifications. |
| (c) | Possible hazardous reactions | : None under normal processing. Can react violently on contact with incompatibles |
| (d) | Conditions to avoid | : Avoid dust formation. Incompatible products. Excess heat. Exposure to light. Exposure to air. Exposure to moist air or water. |
| (e) | Incompatible material | : Strong oxidizing agents, Organic materials, Strong bases, Metals |
| (f) | Hazardous decomposition products | : Hydrogen iodide, Chlorine, Hydrogen chloride gas |



11. TOXICOLOGICAL INFORMATION

| | | | |
|--|---|----------|--|
| 11.1 Information on toxicological effects | | | |
| | Oral | LD50 Rat | 50 mg/kg |
| 11.2 Corrosion Irritation | | | |
| | Serious eye damage / irritation | | Causes serious eye irritation |
| | Respiratory or skin irritation | | Causes severe burn , may cause respiratory irritation. |
| | Germ cell mutagenicity | | No data available |
| | Carcinogenicity | | No data available |
| | Reproductive Toxicity | | No data available |
| 11.3 Additional information | | | |
| i | No information available | | |
| ii | Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea(Iodine monochloride) | | |





12. ECOLOGICAL INFORMATION

| | | |
|--|---|-------------------|
| 12.1 Toxicity | | |
| No data available | | |
| 12.2 Persistence and degradability | | |
| (a) | Persistence and degradability | Biodegradability |
| (b) | Biodegradation | No data available |
| 12.3 Bio accumulative potential | | |
| (a) | BCF – Other aquatic organisms | No data available |
| (b) | Partition coefficient n-octanol/water (Log Kow) | No data available |
| (c) | Bioaccumulative potential | No data available |
| 12.4 Mobility in Soil | | |
| (a) | Partition coefficient n-octanol/water (Log Koc) | No data available |
| 12.5 Results of PBT and vPvB assessment | | |
| No data available | | |
| 12.6 Other adverse effects | | |
| Not known | | |



13. DISPOSAL CONSIDERATIONS

| | |
|---|---|
| 13.1 Waste disposal recommendation's | |
| i | General instructions |
| | Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification. |
| ii | Product / Packaging disposal recommendations |
| | Avoid release to the environment |





14. TRANSPORT INFORMATION

| 14.1 | In accordance with ADR / IMDG / IATA / ADN / RID | | | | |
|------|--|---------------------|---------------------|---------------------|---------------------|
| | ADR | IMDG | IATA | ADN | RID |
| i | UN Number | | | | |
| | UN 1792 | UN 1792 | UN 1792 | UN 1792 | UN 1792 |
| ii | UN proper shipping name | | | | |
| | Iodine Monochloride | Iodine Monochloride | Iodine Monochloride | Iodine Monochloride | Iodine Monochloride |
| iii | Transport hazard class | | | | |
| | 8 | 8 | 8 | 8 | 8 |
| iv | Hazardous class symbols | | | | |
| | | | | | |
| v | Packing group | | | | |
| | II | II | II | II | II |
| vi | Environment hazards: Dangerous for the environment | | | | |
| | Yes | Yes | Yes | Yes | Yes |
| vii | Marine Pollutant | | | | |
| | Not applicable | Yes | Not applicable | Not applicable | Not applicable |



15. REGULATORY INFORMATION

| 15.1 | Regulations |
|------|--|
| i | U.S. Department of Homeland Security : This product does not contain any DHS chemicals. |
| ii | California Proposition 65 : This product does not contain any Proposition 65 chemicals. |



16. OTHER INFORMATION

| | | | | | | | | | | |
|---------------------------------|---|--|---------------|----------|-------------|----------|-------------------|----------|----------------------------|----------|
| 16.1 NFPA Rating | | | | | | | | | | |
| i | Health hazard | : 3 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. | | | | | | | | |
| ii | Fire hazard | : 0 - Materials that will not burn under typical dire conditions, including intrinsically non-combustible materials such as concrete, stone, and sand. | | | | | | | | |
| iii | Reactivity | : 0 - Normally stable, even under fire exposure conditions, and is not reactive with water. | | | | | | | | |
| 16.2 HMIS Rating | | <table border="1"> <tr> <td>Health</td> <td align="center">3</td> </tr> <tr> <td>Fire</td> <td align="center">0</td> </tr> <tr> <td>Reactivity</td> <td align="center">0</td> </tr> <tr> <td>Personal protection</td> <td align="center">J</td> </tr> </table> | Health | 3 | Fire | 0 | Reactivity | 0 | Personal protection | J |
| Health | 3 | | | | | | | | | |
| Fire | 0 | | | | | | | | | |
| Reactivity | 0 | | | | | | | | | |
| Personal protection | J | | | | | | | | | |
| i | Health | : 3 - Moderate Hazard - Temporary or minor injury may occur | | | | | | | | |
| ii | Flammability | : 0 - Minimal Hazard - Materials that will not burn | | | | | | | | |
| iii | Physical | : 0 - Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives. | | | | | | | | |
| vi | Personal Protection | : J - Gloves. Synthetic apron. Vapour and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles. | | | | | | | | |
| 16.3 Further Information | | | | | | | | | | |
| | The above information is derived from the available literature & believed to be correct but may not be complete & conclusive. The company shall not be responsible for any damage resulting from handling or usage of the product. The information shall be used only as a guide. | | | | | | | | | |

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