

Revision: 2.0  
(Replaces revision 1.1 of 16 April 2021)Revision date: 31 January 2022  
Date printed: 03 February 2023**Section 1. Identification****1.1 Product Identifier** 0376

Product Name IODINE RESUBLIMED

CAS Number 7553-56-2

REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

Molecular Formula  $I_2$  =253.81

**1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

**1.3 Supplier** Vickers Laboratories Ltd

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**1.4 Emergency Telephone** (08:00-16:30) +44(0) 113 2362811  
(24hr) 112  
(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

|  |   |
|--|---|
| Acute toxicity, category 4 (dermal)        | H312: Harmful in contact with skin.                                   |
| Acute toxicity, category 4 (inhalation)    | H332: Harmful if inhaled.   |
| Spec target organ tox - single, category 3 | H335: May cause respiratory irritation.                               |
| Spec target organ tox - repeat, category 1 | H372: Causes damage to organs through prolonged or repeated exposure. |
| Hazard to aquatic environment, category 1  | H400: Very toxic to aquatic life.                                     |

**2.2 Label elements****Labelling according to regulation 1272/2008/EC**

Signal word Danger

Hazard Pictograms



**Hazard Statements** Harmful if inhaled. Harmful in contact with skin. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life.

**Precautionary Statements** Wear protective gloves / protective clothing / eye protection / face protection. Avoid breathing dust / fume / gas / mist / vapours / spray. Use only outdoors or in a well-ventilated area. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of soap and water. Avoid release to the environment.

## Section 3. Composition

### 3.1 Substances

| Component | CAS No.   | EEC No.   | REACH No. | Conc w/w | CLP Classification (1272/2008/CE)   |
|-----------|-----------|-----------|-----------|----------|---|
| Iodine    | 7553-56-2 | 231-442-4 |           | >99%     | Acute Tox. 4 (D), Acute Tox. 4 (I), STOT SE 3 (I), STOT RE 1, Aquatic Acute 1 |

## Section 4. First Aid

### 4.1 Description of first aid measures

|                                      |   |
|--------------------------------------|---|
| Eyes                                 | Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION URGENTLY.  |
| Skin                                 | Wash contaminated area with sodium thiosulphate solution. Remove contaminated clothing immediately and wash before re-use. If discomfort persists OBTAIN MEDICAL ATTENTION.   |
| Inhalation                           | Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION URGENTLY. |
| Ingestion                            | If conscious give several glasses of a 5% sodium thiosulphate solution to drink then administer a salt containing purgative to induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.  |
| Personal protection for first aiders | Wear protective gloves / eye protection.  |

### 4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

|                     |  |
|---------------------|--|
| Extinguishing Media | Consider what other flammable materials are present and act accordingly. |
| Unsuitable Media    | Nothing specified.   |

### 5.2 Special hazards arising from the substance or mixture

|         |   |
|---------|---|
| Hazards | May evolve toxic fumes if involved in a fire. |
|---------|---|

### 5.3 Advice for firefighters

|                         |  |
|-------------------------|--|
| Advice for firefighters | Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. |
|-------------------------|--|

## Section 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection Avoid breathing vapour. Only re-enter area with full protective clothing and breathing apparatus. Do not allow other people to enter area. Do not allow general use of area until it is safe to do so.

## 6.2 Environmental precautions

Environmental Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

## 6.3 Methods and material for containment and cleaning up

Major Spillage Shovel/sweep up into container for removal Wash area down with sodium thiosulphate solution and copious amounts of water.

Minor Spillage Shovel/sweep up into container for removal Wash area down with sodium thiosulphate solution and copious amounts of water.

## 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

# Section 7. Storage & Handling

## 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.

## 7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Keep well separated from food and food containers.

## 7.3 Specific end use(s)

See section 1.2.

# Section 8. Workplace Exposure & Personal Protection

## 8.1 Control parameters

| Component | CAS No    | Concentration | Workplace Exposure Limits |                         |         |            |
|-----------|-----------|---------------|---------------------------|-------------------------|---------|------------|
|           |           |               | Long Term (8hr TWA)       | Short Term 15min period |         |            |
| Iodine    | 7553-56-2 | >99%          | -                         | -                       | 0.1 ppm | 1.0 mg/m-3 |

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

## 8.2 Exposure controls

Respiratory Protection Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.

Hand Protection Wear gloves.

Eye Protection Use tightly fitting chemical splash proof glasses or goggles.

Skin Protection Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

Special Hazards No special precautions required.

# Section 9. Physical & Chemical Properties

## 9.1 Information on basic physical and chemical properties

|                       |   |
|-----------------------|---|
| Appearance            | Bluish-black prills which evolve a violet corrosive vapour. |
| Odour                 | Pungent and intensely irritating.                           |
| pH                    | Not applicable  |
| Boiling Point         | 184.3°C   |
| Melting Point         | 113°C   |
| Flash Point           | Not applicable  |
| Upper Flammable Limit | Not applicable  |
| Lower Flammable Limit | Not applicable  |
| Auto Ignition         | Not applicable  |

|                      |                             |
|----------------------|-----------------------------|
| Explosive Properties | No.                         |
| Oxidising Properties | No.                         |
| Vapour Pressure      | Not applicable              |
| Relative Density     | 4.9300                      |
| Water Solubility     | Sparingly soluble in water. |

## 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

|      |                                    |  |
|------|------------------------------------|--|
| 10.1 | Reactivity                         | No data available.   |
| 10.2 | Chemical Stability                 | Stable under normal conditions   |
| 10.3 | Possibility of hazardous reactions | No data available.   |
| 10.4 | Conditions to Avoid                | Prolonged heat.  |
| 10.5 | Incompatible Materials             | Forms highly explosive compounds with ammonia which are shock sensitive. Reacts violently with reducing materials, sulphur, iron, alkali metals and phosphorous. Moisture ignites mixtures with aluminium, magnesium and zinc powders. |
| 10.6 | Hazardous Decomposition Products   | Decomposes to evolve toxic and corrosive iodine vapour.  |

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

|                      |  |
|----------------------|--|
| Eyes                 | The vapour is irritating to the eyes.  |
| Skin                 | Stains skin. Intensely irritating to the skin causing redness, pain and burns. Skin absorption may be an important exposure route producing toxic effects similar to inhalation.                                     |
| LD50 Skin            | 1425mg/kg Rat  |
| Ingestion            | Ingestion of large amounts will cause abdominal pain, nausea, vomiting and diarrhoea. Purging, excessive thirst and circulatory failure may develop in severe cases.   |
| LD50 Oral            | 14000mg/kg Rat   |
| Inhalation           | Exposure to vapour concentrations above the occupational exposure limits will produce severe irritation of the eyes, nose, throat and respiratory tract. Symptoms include sore throat, cough and laboured breathing. |
| LD50 Inhalation      | >4.588mg/l Rat (4 hours)   |
| TCLo                 | Not available  |
| Carcinogenicity      | Not considered to be a carcinogen.   |
| Mutagenicity         | Not considered to be a mutagen.  |
| Reproductive Effects | None identified.   |

## Section 12. Ecological

|      |                                  |                                  |
|------|----------------------------------|----------------------------------|
| 12.1 | Toxicity                         | Very toxic to aquatic organisms. |
|      | LC50 Algal                       | 0.13mg/l Green algae             |
|      | LC50 Crustacea                   | 0.2mg/l Daphnia magna (48 hours) |
|      | LC50 Fish                        | 1.7mg/l Rainbow trout (96 hours) |
| 12.2 | Persistence and degradability    | No data available.               |
| 12.3 | Bioaccumulative potential        | No data available.               |
| 12.4 | Mobility in soil                 | No data available.               |
| 12.5 | Results of PBT & vPvB assessment | Assessment not required.         |
| 12.6 | Other adverse effects            | None known at present.           |

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

|                        |   |
|------------------------|---|
| Disposal Methods       | Dissolve in an excess of water and treat with sodium thiosulphate solution until the purple colour disappears. Wash to drain with copious amounts of water. |
| Contaminated Packaging | Wash out containers with water. Use a licensed waste disposer.  |

## Section 14. Transport Information

|                                   |                                  |
|-----------------------------------|----------------------------------|
| 14.1 UN Number                    | 3495                             |
| 14.2 Proper Shipping Name         | Iodine                           |
| 14.3 Transport classes            |                                  |
| UN classification                 | 8                                |
| Subsidiary hazard(s)              | 6.1                              |
| Transport category                | 3                                |
| ADR Hazard ID                     | 86                               |
| Tunnel Restriction Code           | E                                |
| 14.4 Packing Group                | III                              |
| 14.5 Environment hazards          | See section 12.                  |
| 14.6 Special precautions for user | No special precautions required. |
| 14.7 Transport in bulk            | Not transported in bulk.         |



## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Acute toxicity, category 4 (dermal); Acute toxicity, category 4 (inhalation); Spec target organ tox - single, category 3; Spec target organ tox - repeat, category 1; Hazard to aquatic environment, category 1

Signal word Danger

Hazard Pictograms



Hazard Statements H332, H312, H335, H372, H400  
Harmful if inhaled. Harmful in contact with skin. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life.

Precautionary Statements P280, P261, P271, P363, P302+P352, P273  
Wear protective gloves / protective clothing / eye protection / face protection. Avoid breathing dust / fume / gas / mist / vapours / spray. Use only outdoors or in a well-ventilated area. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of soap and water. Avoid release to the environment.

### 15.2 Chemical safety assessment

Assessment not required.

## Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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