

MSDS      2770 Iodine

Date of Issue/re-issue:- **2018.08.01** Date of Expiry:-2023.08.01

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Company Name



**ECP LTD** *ecp*

Address:

39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel:

NZ: 0800 154 666 (24 h)

**Telephone:**

09 480 4386

**Fax**

09 480 4385

**Product**

**Iodine 2770**

Synonyms

Tracked Substance?:

No

**Regulatory Classification numbers**

**CAS Number:**

7553-56-2

**UN Number:**

1759

**HSNO Approval Number:**

HSR002491

**DG Class :**

8

**Secondary DG Class (if any):**

**Packing group:**

II

**Recommended use:**      Laboratory testing and investigations

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2. Hazards Identification

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2. HAZARDS IDENTIFICATION 2.1 GHS Classification Acute toxicity, Inhalation (Category D) Acute toxicity, Dermal (Category D) Skin corrosion (Category C) Skin sensitisation (Category B) Aquatic toxicity (Acute or Chronic) (Category A) 2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word:- Danger

Hazard statements:-

H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause

an allergic skin reaction. H332 Harmful if inhaled. H400 Very toxic to aquatic life.

Precautionary statement(s) Prevention P260 Do not breathe dust or mist. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor. P322 Specific measures (see supplemental first aid instructions on this label). P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P363 Wash contaminated clothing before reuse. P391 Collect spillage. Storage P405 Store locked up. Disposal P501 Dispose of contents/ container to an approved waste disposal plant.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Ingredients	Name	CAS	Proportion
	Iodine	7553-56-2	100 %

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### 4. FIRST AID MEASURES

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<b>Inhalation</b>	Remove affected person from contaminated area and if irritation persists, seek medical advice. If not breathing apply artificial respiration and seek urgent medical attention.
<b>Ingestion</b>	If swallowed, do not induce vomiting. Immediately wash out mouth and lips thoroughly with water. Seek immediate medical attention.
<b>Skin</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Wash contaminated clothing before re-use. If irritation occurs seek medical advice.
<b>Eye</b>	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.
<b>First Aid Facilities</b>	Eye wash station, safety shower and normal washroom facilities.
<b>Advice to Doctor</b>	Treat symptomatically.
<b>Other Information</b>	For advice in an emergency, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 POISON / 0800 764 766) or a doctor at once.

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### 5. FIRE FIGHTING MEASURES

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<b>Suitable Extinguishing Media</b>	Extinguish fire with foam, chemical powder, carbon dioxide, water spray or water fog.
<b>Hazards from Combustion Products</b>	Under fire conditions this product may emit toxic and/or irritating fumes including iodine & various iodine compounds.

<b>Specific Hazards</b>	Non-combustible product, however it will sublime and decompose under fire conditions.
<b>Hazchem Code</b>	2X
<b>Precautions in connection with Fire</b>	Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode. Use water spray to keep fire-exposed containers cool.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Emergency Procedures</b>	Increase ventilation. Evacuate all unprotected personnel. Wear respiratory protection and full protective clothing to prevent inhalation, skin and eye exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, and then transfer material to a suitable container. Use absorbent paper dampened with water to pick up remaining material. Wash surfaces well, with soap and water. Seal all wastes in vapour tight labelled plastic containers for eventual disposal. If contamination of sewers or waterways occurs inform the local water authorities and EPA in accordance with local regulations. Dispose of waste according to applicable local and national regulations.
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## 7. HANDLING AND STORAGE

<b>Precautions for Safe Handling</b>	Corrosive substance. Attacks skin and eyes. May produce severe burns. Wear suitable protective clothing, gloves and eye/face protection when mixing and using. Use in designated areas with adequate ventilation. Avoid breathing in dust. Do not get in eyes, on skin, or on clothing. Keep containers closed when not in use. Do not allow water to get into the container because of violent reaction. Minimize dust generation and accumulation. Discard contaminated shoes or clothing. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands after handling, and before eating, drinking, smoking or using the toilet facilities.
<b>Conditions for Safe Storage</b>	Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in labelled, corrosion-resistant containers. Store away from incompatible materials. Have appropriate fire extinguishers available in and near the storage area. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Provide a catch-tank in a bunded area. Store in original packages as approved by manufacturer. For information on the design of the storeroom, reference should be made to Australian Standard AS 3780-2008. The storage and handling of corrosive substances. Reference should also be made to all State and Federal regulations.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>National Exposure Standards</b>	No exposure value assigned for this specific material by the National Occupational Health and Safety Commission (NOHSC), Australia or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour. However, the available exposure limits for ingredients are listed below:
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National Occupational Health And Safety Commission (NOHSC), Australia Exposure Standards:

Substance TWA STEL NOTICES  
 ppm mg/m<sup>3</sup> ppm mg/m<sup>3</sup>  
 Iodine 0.1 1 (Peak limitation) -

New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards:

Substance TWA STEL NOTICES  
 ppm mg/m<sup>3</sup> ppm mg/m<sup>3</sup>  
 Iodine 0.1 1 (Ceiling) -

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.  
 STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.  
 Peak Limitation: A ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes.  
 Ceiling: A concentration that should not be exceeded during any part of the working day.

<b>Biological Limit Values</b>	No biological limit allocated.
<b>Engineering Controls</b>	Good ventilation adequate to maintain the concentration below exposure standards is required. The use of a local exhaust ventilation system (drawing dusts away from workers breathing zone) is recommended. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn.
<b>Respiratory Protection</b>	If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.
<b>Eye Protection</b>	Safety glasses with side shields, goggles or face shield as appropriate should be worn as described in Australian Standard AS/ANZ 1337 - Eye Protectors for Industrial Applications.
<b>Hand Protection</b>	Wear laminated film, nitrile or other suitable, impervious gloves. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
<b>Body Protection</b>	Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Rhombic, violet/black crystals, metallic lustre.
<b>Odour</b>	Not available
<b>Melting Point</b>	113.5°C
<b>Boiling Point</b>	184°C (sublimes)
<b>Solubility in Water</b>	Soluble
<b>Specific Gravity</b>	4.93
<b>pH Value</b>	Not available.
<b>Vapour Pressure</b>	1 mmHg at 38.7°C
<b>Vapour Density (Air=1)</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not combustible
<b>Auto-Ignition Temperature</b>	Not available
<b>Flammable Limits - Lower</b>	Not available
<b>Flammable Limits - Upper</b>	Not available

## Upper

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### 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable under normal conditions of handling and storage.
<b>Conditions to Avoid</b>	Exposure to sunlight and moisture.
<b>Incompatible Materials</b>	Strong oxidising agents, liquid chlorine, ammonia.
<b>Hazardous Decomposition Products</b>	When heated to decomposition it emits highly toxic fumes of iodine & various iodine compounds.
<b>Hazardous Reactions</b>	It will react with strong oxidising agents, liquid chlorine and ammonia.
<b>Hazardous Polymerization</b>	Will not occur.

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### 11. TOXICOLOGICAL INFORMATION

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<b>Toxicology Information</b>	Not available
<b>Inhalation</b>	Harmful by inhalation. Inhalation of iodine vapours is very irritating to the mucous membranes. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. Causes chemical burns to the respiratory tract.
<b>Ingestion</b>	Corrosive. Can cause severe burns of the mouth, throat and stomach. Causes abdominal pain, diarrhea, fever, vomiting, stupor and shock.
<b>Skin</b>	Causes burns. Harmful in contact with skin. Skin contact will cause redness, itching, irritation, severe pain and chemical burns with resultant tissue destruction. Can be absorbed through skin, and may cause seizure and renal failure.
<b>Eye</b>	Causes burns. Eye contact will cause stinging, blurring, tearing, severe pain and possible permanent corneal damage.
<b>Chronic Effects</b>	There are no known chronic health effects associated with this material.

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### 12. ECOLOGICAL INFORMATION

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<b>Ecotoxicity</b>	Very toxic to aquatic organisms.
<b>Persistence / Degradability</b>	Not available
<b>Mobility</b>	Not available
<b>Bioaccumulative Potential</b>	Not available
<b>Environment Protection</b>	Prevent this material entering waterways, drains and sewers.

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### 13. DISPOSAL CONSIDERATIONS

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<b>Disposal Considerations</b>	The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.
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### 14. TRANSPORT INFORMATION

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<b>Transport</b>	Road Transport:
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**Information**

New Zealand:

This material is classified as a Class 8 - Corrosive Substance according to NZS 5433:2007 Transport of Dangerous Goods on Land.

Must not be loaded in the same freight container or on the same vehicle with:

- (Class 1) Explosives
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides
- (Class 7) Radioactive materials unless specifically exempted

And are incompatible with food and food packaging in any quantity.

Note 1; Cyanides (Class 6.1) must not be loaded in the same freight container or on the same vehicle with acids (Class 8).

Note 2; Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis. Packing Group I and II acids and alkalis should be considered as strong.

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- (Class 4.3) Dangerous when wet substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- (Class 4.3) Dangerous when wet substances
- (Class 5.1) Oxidising substances
- (Class 5.2) Organic peroxides

And are incompatible with food and food packaging in any quantity.

Air transport:

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 3495

Proper Shipping Name: IODINE

Class: 8

Subrisk: 6.1

Packing Group: III

Labelling No: 8

Packing Instruction: 860 (For passenger and cargo aircraft)

Packing Instruction: 864 (For cargo aircraft only)

Limited quantity: Packaging Instructions: Y845, Net quantity: 5 kg (For passenger and cargo aircraft)

Net quantity: 25 kg (For passenger and cargo aircraft)

Net quantity: 100 kg (For cargo aircraft)

**U.N. Number** 1759

**Proper Shipping Name** CORROSIVE SOLID, N.O.S. - (IODINE)

**DG Class** 8

**Hazchem Code** 2X

**Packaging Method** 3.8.8

**Packing Group** II

**EPG Number** 8A1

**IERG Number** 37

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## 15. REGULATORY INFORMATION

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**Regulatory Information**

Australia:

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

<b>Poisons Schedule</b>	S6
<b>National and or International Regulatory Information</b>	New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Group Standard: Additives, Process Chemicals and Raw Materials (Corrosive) Group Standard 2006 HSNO Approval Number: HSR002491. All components of this product are listed on the New Zealand Inventory of Chemicals (NZIC).
<b>Hazard Category</b>	Harmful,Corrosive,Dangerous for the environment
<b>AICS (Australia)</b>	All constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

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## 16. Disclaimer

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The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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