



## Safety Data Sheet

Date of Issue: 18.06.2020

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### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name: **ECP Limited**  
Address: 39 Woodside Ave, Northcote, Auckland, New Zealand 0627

Emergency Tel: 0800 243 622 or .....0800 CHE M CA LL		Tel +64 9 480 4386	FAX +64 9 480 4385	
Product	Potassium Iodide		Code	43001, PA001, PL001, 26846.292, 26850.365
CAS#	HSNO#	UN #	DG Class/es	Packing group #
7681-11-0	HSR003718	NA	NA	NA

Recommended use : Laboratory Investigations

### 2. Hazards identification

#### GHS Classification and statement

HSNO	HSNO	GHS	Signal Word	GHS Hazard Statement
6.5B	Contact sensitizer	Category 1	Warning	H317 May cause an allergic skin reaction
6.9A	Harmful to human target organs or systems	Category 1	Danger	H370 , H372 Causes damage to organs
9.1B	Aquatic toxicity	Category 2	Warning	H411 Toxic to aquatic life

#### Hazard Pictogram



#### Prevention Statements:

P102: Keep out of reach of children.  
P103: Read label before use.  
P260: Do not breathe mist/vapours/spray  
P261: Avoid breathing dust  
P264: Wash hands thoroughly after use.  
P270: Do not eat, drink, or smoke when handling this product.  
P272: Contaminated work clothing should not be allowed out of the workplace.  
P273: Avoid release to the environment.  
P280: Wear protective gloves / clothing and eye / face protection.

### 3. Composition/information on ingredients

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Formula: IK

Molecular weight: 166.00 g/mol

Component	Concentration
Potassium iodide	
CAS No.	7681-11-0 <= 100%

### 4. First aid measures

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**Description of necessary first Aid measures:**

**Swallowed:** Rinse mouth, then drink plenty of water. Get medical advice/attention if you feel unwell.

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

**Skin:** Immediately flush skin with plenty of water for at least 15 minutes. Do not rub the affected area. Remove contaminated clothing and shoes. Wash clothing before re-use. Thoroughly clean shoes before re-use. Get medical attention if irritation develops.

**Eye:** Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.

**Inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Apply resuscitation if victim is not breathing; Administer oxygen if breathing is difficult.

**Workplace Facilities:** Ensure an eye bath and washroom facilities are available.

**Notes for Medical Personnel:** Treat symptomatically based on judgement of doctor and individual reactions of patient.

**Aggravated medical conditions caused by exposure:** Chronic ingestion of iodides may produce iodism which may be characterised by skin rash, running nose, headaches, and irritation of mucus membranes. Weakness, anaemia, loss of weight, and general depression may also occur.

### 5. Firefighting measures

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**Type of Hazard:** Non-combustible.

**Fire Hazard Properties:** Fire or heat may produce irritating, toxic and/or corrosive fumes, including potassium oxides, hydrogen iodide.

**Extinguishing Media & Methods:** If material is involved in a fire, use dry chemical, Carbon dioxide (CO<sub>2</sub>), foam or water spray for extinction - Do not use water jets. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Recommended Protective Clothing:** Wear self-contained breathing apparatus (SCBA) and chemical

splash suit. SCBA and structural firefighter's uniform may provide limited protection. Contain runoff from fire control or dilution water - Runoff may pollute waterways.

## 6. Accidental release measures

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**Procedures to be covered:** Ensure adequate ventilation. Avoid generating dust. Do not breathe dust and avoid contact with eyes, skin and clothing. Use personal protective equipment as required (see SECTION 8). Prevent entry into waterways, drains or confined areas.

**Methods and Materials for Containment and Clean Up:** Collect material (sweep or vacuum up) and place into a suitable container for later disposal (see SECTION 13). Avoid dispersal of dust in the air (i.e. clearing dust surfaces with compressed air).

## 7. Handling and storage

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**Handling:** Ensure an eye bath and wash room facilities are available and ready for use. Ensure adequate ventilation. Minimise dust generation and accumulation. Do not breathe dusts or mists and avoid contact with eyes, skin and clothing. Do not ingest.

**Storage:** Keep in tightly closed container, stored in a cool, dry, well ventilated area. Prolonged storage is not recommended because of possible degradation problems, including yellowing of the potassium iodide product. Always inspect the potassium iodides colour and overall quality before use. Containers of this material may be hazardous when empty since they retain product residues (dust, solids).

Isolate from incompatible substances: diazonium salts, diisopropyl peroxydicarbonate, oxidants, bromine and chlorine trifluorides, fluorine perchlorate, calomel (mercurous chloride), potassium chlorate, metallic salts, tartaric and other acids.

## 8. Exposure controls/personal protection

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**Workplace Exposure Standards:** No specific exposure standards are available for this product. For Iodine (CAS No. 7553-56-2):

TWA = 0.1 ppm (1 mg/m<sup>3</sup>) Peak limitation. (Safe Work Australia Exposure Standard)

TWA = 0.1 ppm (1 mg/m<sup>3</sup>) Ceiling. (New Zealand WES)

**Engineering Controls:** A system of local and / or general exhaust is recommended to keep employee exposures below the airborne exposure's limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into general work area.

**Personal Protective Equipment (PPE):**

RESPIRATORY: Dust mask/particulate (P2) filter respirator (refer to AS/NZS 1715 & 1716).

EYE/FACE: Safety glasses; Chemical goggles; Face-shield.

SKIN/BODY: Protective gloves, e.g. nitrile rubber and coveralls.

## 9. Physical and chemical properties

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### 9.1 Information on basic physical and chemical properties

a) Appearance:	Form: crystalline
Colour:	white
b) pH:	6.0 - 9 at 166 g/l at 25 °C
c) Melting point/freezing point	Melting point/range: 681 °C
d) Initial boiling point and boiling range:	1,330 °C
e) Vapour pressure:	1 hPa at 745 °C
f) Relative density:	3.130 g/cm <sup>3</sup>
g) Solubility in Water:	Very soluble (140gm/100gm in water).
h) Specific Gravity:	3.1 (water = 1)

## 10. Stability and reactivity

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**Stability of the Substance:** Stable under ordinary conditions of use and storage.

**Conditions to avoid:** Avoid moisture, air light and incompatibles. Exothermic reaction with oxidising agents. Risk of ignition or formation of inflammable gases or vapours with fluorine.

**Material to avoid:** Keep away from incompatibles such as diazonium salts, diisopropyl peroxydicarbonate, oxidants, bromine and chlorine trifluorides. fluorine perchlorate, calomel (mercurous chloride), potassium chlorate, metallic salts, tartaric and other acids.

**Hazardous decomposition Products:** On long exposure to air becomes yellow due to the release of iodine. Hazardous decomposition products include oxides of the contained metal and halogen, possibly also free or ionic halogen.

**Hazardous polymerization:** Will not occur.

## 11. Toxicological information

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### Acute Effects:

LD50 = 2779 mg/kg ( Rat )

**Swallowed:** Provokes abdominal pain, nausea, and vomiting. After absorption of very large quantities,

may cause drop in blood pressure, paralysis symptoms, agitation.

**Skin:** Harmful in contact with skin. May cause an allergic skin reaction.

**Eye:** May cause irritation, redness and pain.

Inhaled: May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

### Chronic Effects:

**Chronic Toxicity:** Causes damage to organs (thyroid) through prolonged or repeated oral exposure.

**Irritation/Corrosion:** Skin irritation

**Carcinogenic Effects:** Not listed as carcinogenic

**Mutagenic Effects:** Not suspected of causing genetic defects  
Reproductive or developmental effects: Causes damage through prolonged or repeated exposure

## 12. Ecological information

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**Potential Environmental Considerations:** Toxic to aquatic life with long-lasting effects.

**Ecotoxicity in water:**

LC50, Crustacea (Daphnia magna): 2.7 mg/L (48 h).

**Persistence and Degradability:** Potassium iodide will completely dissociate in water giving potassium

ion (K+) and iodide anion (I-). Biodegradation is not applicable for inorganic substances.

**Mobility:** Expected to have a low potential for adsorption (completely ionized in water phase). Negligible distribution to air due to high water solubility and low vapour pressure.

**Bioaccumulation:** Not likely.

**BOD and COD:** No Data

**Products of Biodegradation:** No Data

## 13. Disposal considerations

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**Disposal Information:** Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. Dispose of container in accordance with local government regulations.

## 14. Transport Information Table

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		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	-	-	-
14.2	UN Proper Shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	Transport Hazard Class	-	-	-
14.4	Packaging group	-	-	-
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	None		

## 15. Regulatory information

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**HSNO Approval Number:** HSR003718

**HSNO Classifications:**

6.5B (Contact Sensitiser)

6.9A (Harmful to human target organs or systems)

9.1B (Aquatic toxicity)

**Regulatory status:** EPA New Zealand Approval Number HSR003718

## 16. Other information

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### Interpretation and Abbreviations

Controls applying to a substance:

- denotes that changes have been made to these controls, further information on these changes is located in the transfer notice for that substance,
- (R ) abbreviation for the term Regulation of the Hazardous Substances regulations

AICS – Australian Inventory of Chemical Substances

AOX – Absorbable organic halogens.

APF – Assigned Protection Factor.

BOD – Biochemical Oxygen Demand China

COD – Chemical Oxygen Demand

DSL – Canadian Domestic Substances List.

EC50 – Half maximal effective concentration. The concentration of a toxicant which induces a response halfway between the baseline and maximum after a specified exposure time.

EINECS – European Inventory of Existing Commercial Chemical Substances.

ENCS – Japanese Existing and New Chemical substances.

IARC – International Agency for Research on Cancer.

IDLH – Immediately Dangerous to Life or Health Concentrations.

ISHL – Japanese Industrial Safety and Health Law List of Chemicals.

LOEL – Lowest Observed Effect Level.

LD50 – Lethal Dose sufficient to kill 50 percent of the test population within a certain time

LDLO – Lethal Dose Low (the lowest dosage per unit of bodyweight of a substance known to have resulted in fatality in a particular animal species).

MAK – Maximum workplace concentration in the workplace air that generally does not have known adverse effects on the health of the employee nor cause unreasonable annoyance when a person is repeatedly exposed during long periods, usually 8 hours daily, 40hour working week).

NOAA – National Oceanic and Atmospheric Administration.

NOEC – No Observed Effect Concentration.

NTP – National Toxicology Program.

NZIoC – New Zealand Inventory of Chemicals.

OECD HPV – The Organisation for Economic Co-operation and Development High Product Volume Chemicals.

PEL – Permissible exposure limit.

PPE – Personal Protective Equipment.

Prop 65 – California Proposition 65 List of Chemicals.

RTECS – Registry of Toxic Effects of Chemical substances

STEL – Short term exposure limit.

TOC – Total Organic Carbon.

TSCA – US Toxic Substances Control Act Existing Chemicals.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.

VOC – Volatile Organic Compounds.

### **DISCLAIMER**

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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