

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

Company Name **ECP Limited**  
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<b>Product</b>	1,4-Dichlorobenzene				<b>Code</b>	2115
<b>CAS#</b>	<b>HSNO#</b>	<b>UN #</b>	<b>DG Class/es</b>	<b>Packing group #</b>	<b>Tracking?</b>	<b>Handlers Certificate?</b>
106-46-7	HSR002955	3077	9	III	No	No

**Recommended use:** Laboratory Investigations

**2. Hazards identification**

2.1 GHS Classification

- Acute toxicity, Oral (Category D)
- Acute toxicity, Dermal (Category E)
- Eye irritation (Category A)
- Carcinogenicity (Category B)
- Aquatic toxicity (Acute or Chronic) (Category A)

2.2 GHS Label elements, including precautionary statements



Pictogram Signal word **Warning**

Hazard statement(s)

- H302 Harmful if swallowed.
- H313 May be harmful in contact with skin.
- H319 Causes serious eye irritation.
- H351 Suspected of causing cancer.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P281 Use personal protective equipment as required.

Response

- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313 IF exposed or concerned: Get medical advice/attention.
- P330 Rinse mouth. P337 + P313 If eye irritation persists: Get medical advice/attention.
- P391 Collect spillage.

Storage

- P405 Store locked up.

Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

### 2.3 Other hazards

None

## 3. Composition/information on ingredients

### 3.1 Substances

Formula: C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub>

Molecular Weight: 147.00 g/mol

Component	Concentration
1,4-Dichlorobenzene	
CAS No.	106-46-7
	-

## 4. First aid measures

### 4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Produces methaemoglobin, nausea, vomiting, increased pulse rate, headache, impairment of vision

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

No data available

## 5. Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Carbon oxides, hydrogen chloride gas.

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

No data available

## 6. Accidental release measures

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end uses

No data available

## 8. Exposure controls/personal protection

### 8.1 Control parameters

Occupational Exposure Limits Table

Component	CAS No	Value	Control parameters	Basis
1,4-Dichlorobenzene	106-46-7	WES-TWA	25 ppm 153 mg/m <sup>3</sup>	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
	Remarks	Confirmed Animal Carcinogen with Unknown Relevance to Humans		
	106-46-7	WES-STEL	50 ppm 306 mg/m <sup>3</sup>	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
	Remarks	Confirmed Animal Carcinogen with Unknown Relevance to Humans		

### 8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection 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.

Body Protection

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.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### a) Appearance

Form: sheets

Colour: colourless

#### b) Odour

no data available

#### c) Odour Threshold

no data available

- d) pH  
no data available
- e) Melting point/freezing point  
Melting point/range: 52 - 54 °C - lit.
- f) Initial boiling point and boiling range  
173 °C - lit.
- g) Flash point  
66.0 °C - closed cup
- h) Evaporation rate  
no data available
- i) Flammability (solid, gas)  
no data available
- j) Upper/lower flammability or explosive limits  
no data available
- k) Vapour pressure  
8.8 hPa at 50.0 °C 0.5 hPa at 25.0 °C
- l) Vapour density  
no data available
- m) Relative density  
1.241 g/mL at 25 °C
- n) Water solubility  
no data available
- o) Partition coefficient: n-octanol/water  
log Pow: 3.40
- p) Autoignition temperature  
no data available
- q) Decomposition temperature  
no data available
- r) Viscosity  
no data available

## **10. Stability and reactivity**

- 10.1 Reactivity  
no data available
- 10.2 Chemical stability  
no data available
- 10.3 Possibility of hazardous reactions  
no data available
- 10.4 Conditions to avoid  
no data available
- 10.5 Incompatible materials  
Oxidizing agents
- 10.6 Hazardous decomposition products  
no data available

## **11. Toxicological information**

- 11.1 Information on toxicological effects  
Acute toxicity  
LD50 Oral - rat - 500.0 mg/kg  
LD50 Dermal - rabbit - > 2,000 mg/kg  
Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification. Limited evidence of carcinogenicity in animal studies

IARC: 2B - Group 2B: Possibly carcinogenic to humans

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion

Harmful if swallowed.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

Causes serious eye irritation.

Signs and Symptoms of Exposure

Produces methaemoglobin, nausea, vomiting, increased pulse rate, headache, impairment of vision.

Additional Information

RTECS: CZ4550000

## **12. Ecological information**

### **12.1 Toxicity**

Toxicity to fish

LC50 - Danio rerio (zebra fish) - 2.1 mg/l - 96.0 h

LC50 - Pimephales promelas (fathead minnow) - 4.2 mg/l - 96.0 h

LOEC - other fish - 0.263 mg/l - 10.0 d

NOEC - Cyprinodon variegatus (sheepshead minnow) - 5.6 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 - Daphnia magna (Water flea) - 0.70 mg/l - 48 h

Toxicity to algae

EC50 - Desmodesmus subspicatus (green algae) - 28.00 mg/l - 48 h

### **12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 20 d

Result: 20 % - Not readily biodegradable.

### **12.3 Bioaccumulative potential**

Bioaccumulation

Oncorhynchus mykiss (rainbow trout) - 7 d - 0.003 mg/l

Bioconcentration factor (BCF): 112

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

### 13. Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

### 14. Transport Information Table

		<b>ADR/RID – European packaging certification</b>	<b>IMDG International Maritime Dangerous Goods Code</b>	<b>IATA – DGR International Air Travel Association – Dangerous Goods Regulations</b>
<b>14.1</b>	<b>UN Number</b>	3077	3077	3077
<b>14.2</b>	<b>UN Proper Shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,4- Dichlorobenzene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,4- Dichlorobenzene)	Environmentally hazardous substance, solid, n.o.s. (1,4- Dichlorobenzene)
<b>14.3</b>	<b>Transport Hazard Class</b>	9	9	9
<b>14.4</b>	<b>Packaging group</b>	III	III	III
<b>14.5</b>	<b>Environmental Hazards</b>	Yes	yes	Yes
<b>14.6</b>	<b>Special precautions for user</b>	No data available		

### 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

HSNO Approval Code: HSR002955

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group  
Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

### 16. 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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