



## Safety Data Sheet

Date of Issue: 1.12.2020

Date of Expiry: 1.12.2025

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name: : **ECP Limited**  
Address: : PO Box 34125, Birkenhead, Auckland 0746  
Telephone: : +64 9 480 4386  
Facsimile: : +64 9 480 4385  
Emergency phone number: : 0800 243 622 (24 hours)

|                |                   |             |                    |                        |      |
|----------------|-------------------|-------------|--------------------|------------------------|------|
| <b>Product</b> | TRICHLOROETHYLENE |             |                    | <b>Code</b>            | 5320 |
| <b>CAS#</b>    | <b>HSNO#</b>      | <b>UN #</b> | <b>DG Class/es</b> | <b>Packing group #</b> |      |
| 79-01-6        | -                 | -           | -                  | -                      |      |

**Recommended use** : Laboratory Investigations

### 2: Hazards identification

#### 2.1 GHS Classification

Acute toxicity, Oral (Category E), H303  
Skin irritation (Category A), H315  
Eye irritation (Category A), H319  
Germ cell mutagenicity (Category B), H341  
Carcinogenicity (Category A), H350  
Specific Target Organ Toxicity (Category B), H371  
Aquatic toxicity (Acute or Chronic) (Category C), H412

#### 2.2 GHS Label elements, including precautionary statements



**Pictogram**

Signal word Danger

#### **Hazard statement(s)**

H303 May be harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H341 Suspected of causing genetic defects.  
H350 May cause cancer.  
H371 May cause damage to organs.  
H412 Harmful 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.  
 P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
 P264 Wash skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves.

**Response**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 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.  
 P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician.  
 P321 Specific treatment (see supplemental first aid instructions on this label).  
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.  
 P362 Take off contaminated clothing and wash before reuse.

**Storage**

P405 Store locked up.

**Disposal**

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

**2.3 Other hazards - none**

**Environmental Protection Authority (New Zealand)**

HSNO Classification- Health Hazards  
 Classification 6.1D (I) Acutely toxic  
 Classification 6.3A Irritating to the skin  
 Classification 6.4A Irritating to the eye  
 Classification 6.6B Suspected human mutagens  
 Classification 6.7A Known or presumed human carcinogens  
 Classification 6.9B (All) Harmful to human target organs or systems  
 Classification 9.1B (All) Very ecotoxic in the aquatic environment  
 Classification 9.1B (All) Very ecotoxic in the aquatic environment  
 Classification 9.3C Harmful to terrestrial vertebrates

**3: Composition/information on ingredients**

**3.1 Substances**

Synonyms : TCE  
 Trichloroethene  
 Formula : C<sub>2</sub>HCl<sub>3</sub>  
 Molecular weight : 131.39 g/mol  
 CAS-No. : 79-01-6  
 EC-No. : 201-167-4  
 Index-No. : 602-027-00-9

| Component         | Classification                  | Concentration |
|-------------------|---------------------------------|---------------|
| Trichloroethylene | 6.1 E; 6.3 A; 6.4 A; 6.6 B; 6.7 | <= 100 %      |

|  |   |  |
|--|---|--|
|  | A; 6.9 B; 9.1 C; H303, H315, H319, H341, H350, H371, H412 Concentration limits: >= 20 %: STOT SE 3, H336; |  |
|--|---|--|

#### 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

The most important known symptoms and effects are described in the

##### 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 breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

##### 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

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

##### 6.4 Reference to other sections

For disposal see section 13.

#### 7: Handling and storage

##### 7.1 Precautions for safe handling

Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes.

Avoid inhalation of vapour or mist.

For precautions see section 2.2.

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

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Light sensitive. Handle and store under inert gas.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits Table

| Component         | CAS No. | Value   | Control parameters | Basis  |
|-------------------|---------|---|--------------------|--|
| Trichloroethylene | 79-01-6 | WES-TWA   | 10 ppm 55 mg/m3    | New Zealand. Workplace Exposure Standards for Atmospheric Contaminants |
|                   | Remarks | Carcinogen - known or presumed human carcinogen Adopted in 2017 |                    |  |
|                   |         | WES-STEL  | 25 ppm 135 mg/m3   | New Zealand. Workplace Exposure Standards for Atmospheric Contaminants |
|                   |         | Carcinogen - known or presumed human carcinogen Adopted in 2017 |                    |  |

### Biological occupational exposure limits

| Component         | CAS No. | Parameters  | Value           | Biological specimen | Basis  |
|-------------------|---------|---|-----------------|---------------------|--|
| Trichloroethylene | 79-01-6 | WES-TWA   | 10 ppm 55 mg/m3 | Urine               | New Zealand. Workplace Exposure Standards for Atmospheric Contaminants |
|                   |         |   |                 |                     | Exposure Indices   |
|                   | Remarks | Carcinogen - known or presumed human carcinogen Adopted in 2017 |                 |                     |  |
|                   | Remarks | At the end of the work week                                     |                 |                     |  |

### 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**

Face shield and safety glasses. 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 type 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:                             | liquid, clear  |
| Colour:   | colourless   |
| b) Odour characteristic                         |  |
| c) Odour Threshold                              | No data available  |
| d) pH   | No data available  |
| e) Melting point/freezing point                 |  |
| Melting point/range:                            | -84.8 °C - lit.  |
| f) Initial boiling point and boiling range      | 86.7 °C - lit.   |
| g) Flash point - closed cup                     | does not flash   |
| h) Evaporation rate                             | No data available  |
| i) Flammability (solid, gas)                    | No data available  |
| j) Upper/lower flammability or explosive limits |  |
| Upper explosion limit:                          | > 99 %(V) - (Saturation - at high volume fractions, explosion turns into a decomposition reaction) |
| Lower explosion limit:                          | 7.9 %(V)   |
| k) Vapour pressure                              | 81.3 hPa at 20.0 °C  |
| l) Vapour density                               | No data available  |
| m) Relative density                             | 1.463 g/mL at 25 °C  |
| n) Water solubility                             | No data available  |
| o) Partition coefficient:<br>n-octanol/water    | No data available  |
| p) Auto-ignition temperature                    | 410.0 °C   |
| q) Decomposition temperature                    | > 110 °C -   |
| r) Viscosity                                    | No data available  |
| s) Explosive properties                         | No data available  |
| t) Oxidizing properties                         | No data available  |
| <b>9.2 Other safety information</b>             | No data available  |

## **10: Stability and reactivity**

**10.1 Reactivity**

No data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

No data available

**10.5 Incompatible materials**

Oxidizing agents, Strong bases, Magnesium

**10.6 Hazardous decomposition products**

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

**11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

No data available

LC50 Inhalation - Mouse - 4 h - 8450 ppm

LD50 Dermal - Rabbit - > 20,000 mg/kg

**Skin corrosion/irritation**

Drying-out effect resulting in rough and chapped skin.

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Eye irritation - 24 h

**Respiratory or skin sensitisation**

Local lymph node assay (LLNA) - Mouse

May cause allergic skin reaction.

(OECD Test Guideline 429)

**Germ cell mutagenicity**

Laboratory experiments have shown mutagenic effects.

In vitro tests showed mutagenic effects

**Carcinogenicity**

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

IARC: 1 - Group 1: Carcinogenic to humans (Trichloroethylene)

**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

**Additional Information**

RTECS: KX4550000

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Exposure to and/or consumption of alcohol may increase toxic effects.,

Gastrointestinal disturbance, Kidney injury may occur., narcosis

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12: Ecological information

### 12.1 Toxicity

Toxicity to algae ErC50 - Chlamydomonas reinhardtii (green algae) - 36.5 mg/l - 72 h

Remarks: (ECHA)(Trichloroethylene)

Toxicity to bacteria

### 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 19 % - Readily biodegradable.

(OECD Test Guideline 301D)

### 12.3 Bioaccumulative potential

Bioaccumulation Lepomis macrochirus - 14 d

(Trichloroethylene)

Bioconcentration factor (BCF): 17

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

Harmful to aquatic life with long lasting effects.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14: Transport Information Table

|      |                                    | ADR/RID –<br>European<br>packaging<br>certification | IMDG<br>International<br>Maritime<br>Dangerous Goods<br>Code | IATA – DGR<br>International Air<br>Travel Association<br>– Dangerous<br>Goods<br>Regulations |
|------|------------------------------------|---|--|--|
| 14.1 | UN Number                          | -   | -  | -  |
| 14.2 | UN Proper<br>Shipping name         | -   | -  | -  |
| 14.3 | Transport<br>Hazard Class          | -   | -  | -  |
| 14.4 | Packaging group                    | -   | -  | -  |
| 14.5 | Environmental<br>Hazards           | -   | -  | -  |
| 14.6 | Special<br>precautions for<br>user | -   |  |  |

## 15: Regulatory information

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

#### National regulatory information

HSNO Approval Code: HSR001555

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

Tracking Required: not required

Approved Handler Cert.: not required

#### Notification status

AICS: On the inventory, or in compliance with the inventory

DSL: All components of this product are on the Canadian DSL

ENCS: On the inventory, or in compliance with the inventory

ISHL: On the inventory, or in compliance with the inventory

KECI: On the inventory, or in compliance with the inventory

NZIoC: On the inventory, or in compliance with the inventory

PICCS: On the inventory, or in compliance with the inventory

## 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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