



## Safety Data Sheet

Date of Issue: 27.08.2021

Date of Expiry: 27.08.2026

### 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 Name</b>	Calcium Carbide
<b>Product Code</b>	1744
<b>CAS No.</b>	75-20-7

**Recommended use** : Laboratory Investigations

### 2: Hazard's identification

#### 2.1 GHS Classification

Substances and mixtures, which in contact with water, emit flammable gases (Category A)

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



Pictogram Signal word **Danger**

#### Hazard statement(s)

H260 In contact with water releases flammable gases which may ignite spontaneously.

#### Precautionary statement(s)

##### Prevention

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231 + P232 Handle under inert gas. Protect from moisture.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

##### Response

P335 + P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

P370 + P378 In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.

##### Storage

P402 + P404 Store in a dry place. Store in a closed container.

P422 Store contents under inert gas.

##### 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:  $C_2Ca$

Molecular weight: 64.10 g/mol

CAS-No.: 75-20-7

### 4: First aid measures

#### 4.1 Description of first-aid measures

##### General advice

Consult a physician. Show this material 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 labelling

#### 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

Dry powder

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

Calcium oxide

#### 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. For personal protection see section 8.

### **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**

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. 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 contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Store under inert gas. Moisture sensitive. Reacts violently with water. 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**

Ingredients with workplace control parameters  
We are not aware of any national exposure limit.

### **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

a) Appearance	
Form	: crystalline
b) Odor	: No data available
c) Odor Threshold	: No data available
d) Ph	: 12.48 at 20 g/l
e) Melting point/freezing point	: Melting point: 2,300 °C
f) Initial boiling point and boiling range	: 21 °C at 1,013 hPa
g) Flash point	: No data available
h) Evaporation rate	: No data available
i) Flammability (solid, gas) Flammability (solids)	: The product is not flammable. -
j) Upper/lower flammability or explosive limits Upper explosion limit Lower explosion limit	: No data available
k) Vapor pressure	: No data available
l) Vapor density	: No data available
m) Relative density	: 2.22 g/mL at 25 °C
n) Water solubility	: No data available
o) Partition coefficient n-octanol/water log Pow	: No data available
p) Autoignition temperature	: 390 °C
q) Decomposition temperature	: No data available
r) Viscosity	: No data available
s) Explosive properties	: Not explosive
t) Oxidizing properties	: No data available

### 9.2 Other safety information

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**

Reacts violently with water.

### **10.4 Conditions to avoid**

Exposure to moisture.

### **10.5 Incompatible materials**

Strong oxidizing agents, Reacts violently with water.

### **10.6 Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Calcium oxide

Other decomposition products - No data available

## **11: Toxicological information**

### **11.1 Information on toxicological effects**

#### **Acute toxicity**

No data available

#### **Skin corrosion/irritation**

No data available

#### **Serious eye damage/eye irritation**

No data available

#### **Respiratory or skin sensitization**

Maximization Test - Guinea pig

#### **Result: Does not cause skin sensitization.**

(OECD Test Guideline 406)

#### **Germ cell mutagenicity**

No data available

#### **Carcinogenicity**

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

#### **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: Not available

Cough, Shortness of breath, Headache, Nausea, Vomiting

## 12: Ecological information

### 12.1 Toxicity

#### *Toxicity to fish*

static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 50 mg/l

- 96 h

(OECD Test Guideline 203)

#### *Toxicity to daphnia and other aquatic invertebrates*

static test EC50 - Daphnia magna (Water flea) - 4.62 mg/l - 48 h

(OECD Test Guideline 202)

#### *Toxicity to algae*

static test EC50 - Desmodesmus subspicatus (green algae) - 46 mg/l

- 72 h

(OECD Test Guideline 201)

### 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 and vPvB assessment

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

### 12.6 Other adverse effects

Toxic to aquatic life.

No data available

## 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

## 14: Transport Information Table

	ADR/RID – European packaging	IMDG International Maritime	IATA – DGR International Air Travel
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		<b>certification</b>	<b>Dangerous Goods Code</b>	<b>Association – Dangerous Goods Regulations</b>
<b>14.1</b>	<b>UN Number</b>	1402	1402	1402
<b>14.2</b>	<b>UN Proper Shipping name</b>	CALCIUM CARBIDE	CALCIUM CARBIDE	Calcium carbide
<b>14.3</b>	<b>Transport Hazard Class</b>	4.3	4.3	4.3
<b>14.4</b>	<b>Packaging group</b>	I	I	I
<b>14.5</b>	<b>Environmental Hazards</b>	no	no	no
<b>14.6</b>	<b>Special precautions for user</b>	None		
<b>14.7</b>	<b>Incompatible materials</b>	Strong oxidizing agents, Reacts violently with water.		

### Other regulations

Hazchem Code: 4W

## 15: Regulatory information

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

National regulatory information

HSNO Approval Code: HSR001053

HSNO Group Standard Approval: Outside of Group Standard

Tracking Required: 4.3A

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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