

Date of Issue/re-issue: 21/12/2018

Expiry: 01/01/2024

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP Limited**
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Product	Calcium Carbide				Code	1744
CAS#	HSNO#	UN #	DG Class/es	Packing group #	Tracking?	Handlers Certificate?
75-20-7	HSR001053	1402	4.3	I	4.3 A	4.3 A

Recommended use: Laboratory Investigations

2. Hazards 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: C₂Ca

Molecular Weight: 64.10 g/mol

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

Cough, shortness of breath, headache, nausea, vomiting.

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 vapours, 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

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. Do not flush with water. 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. 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. Reacts violently with water. Handle and store under inert gas.

7.3 Specific end use(s)

No data available

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits Table

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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Body Protection

Complete suit protecting against chemicals. Flame retardant protective clothing. 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: Pieces

b) Odour

No data available

c) Odour Threshold

No data available

d) pH

12.48 at 20 g/l

e) Melting point/freezing point

Melting point/range: 2,300 °C

f) Initial boiling point and boiling range

No data available

g) Flash point

No data available

h) Evaporation rate

No data available

i) Flammability (solid, gas)

The product is not flammable. - Flammability (solids)

j) Upper/lower flammability or explosive limits

No data available
k) Vapour pressure
No data available
l) Vapour density
No data available
m) Relative density
2.22 g/cm³ at 25 °C
n) Water solubility
No data available
o) Partition coefficient: n-octanol/water
No data available
p) Auto-ignition temperature
390 °C
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
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
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 sensitisation
Maximisation Test - guinea pig - Does not cause skin sensitisation. - OECD Test Guideline 406
Germ cell mutagenicity
No data available
Carcinogenicity IARC: No component 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

Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

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

Eyes

Causes eye burns.

Signs and Symptoms of Exposure

Cough, shortness of breath, headache, nausea, vomiting.

Additional Information

RTECS: Not available

12. Ecological information

12.1 Toxicity

Toxicity to fish static test

LC50 - *Oncorhynchus mykiss* (rainbow trout) - > 50 mg/l - 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates static test

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

Method: OECD Test Guideline 202

Toxicity to algae static test

EC50 - *Desmodesmus subspicatus* (*Scenedesmus subspicatus*) - 46 mg/l - 72 h

Method: 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

No data available

12.6 Other adverse effects

Toxic to aquatic life.

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 certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1402	1402	1402
14.2	UN Proper Shipping name	CALCIUM CARBIDE	CALCIUM CARBIDE	Calcium carbide
14.3	Transport Hazard Class	4.3	4.3	4.3
14.4	Packaging group	I	I	I
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	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: HSR001053

HSNO Group Standard Approval: Outside of Group Standard

Tracking Required: 4.3A

Approved Handler Cert.: 4.3A

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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