

Revision: 1.1

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Section 1. Identification

1.1 Product Identifier 0140

Product Name CALCIUM CARBIDE tech.

CAS Number 75-20-7

REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

Molecular Formula CaC_2 =64.10

1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd



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Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Contact with water > flam gas, category 1

Skin corrosion/irritation, category 2

Serious eye damage/irritation, category 1

Spec target organ tox - single, category 3

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

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



Hazard Statements In contact with water releases flammable gases which may ignite spontaneously. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation.

Precautionary Statements Keep away from any possible contact with water, because of violent reaction and possible flash fire. Handle under inert gas. Protect from moisture. Wear protective gloves / protective clothing / eye protection / face protection. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. In case of fire: Evacuate area. Do not breathe dust / fume / gas / mist / vapours / spray.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Calcium carbide	75-20-7	200-848-3		>80%	Water-react. 1, Skin Irrit. 2, Eye Dam. 1, STOT SE 3 (I)
Calcium oxide	1305-78-8	215-138-9		13%	Skin Irrit. 2, Eye Dam. 1, STOT SE 3 (I)
Silicon dioxide	68855-54-9	231-545-4	01-2119379499-16-XXXX	2%	STOT RE 1

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION URGENTLY.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure. Keep warm and at rest. If conscious place in a sitting position. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION.
Ingestion	If conscious give plenty of water to drink. Do not induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

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

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Dry chemical powder.
Unsuitable Media	Do not allow water to come into direct contact with material.

5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire.
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5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.
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Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection Use approved personal protective equipment. Ensure no contact with water, acids or other aqueous solutions is possible. Evacuate area immediately. Do not allow other people to enter area.

6.2 Environmental precautions

Environmental Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

6.3 Methods and material for containment and cleaning up

Major Spillage Shovel/sweep up into container for removal
Minor Spillage Shovel/sweep up into container for removal

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with water, acids or other aqueous solutions.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry place protected against moisture and water. Keep well protected from ingress of water and well separated from acids

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits		
			Long Term (8hr TWA)	Short Term 15min period	
Calcium carbide	75-20-7	>80%	-	-	-
Calcium oxide	1305-78-8	13%	-	-	2.0 ppm
Silicon dioxide	68855-54-9	2%	-	-	-

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection Presents no significant inhalation health hazard.
Hand Protection Wear gloves.
Eye Protection Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection Avoid contact with skin.
Special Hazards No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance Sharp irregular, light grey to near black, rock-like solid.
Odour Characteristic-garlic type odour.
pH 12.48 @20°C (1% Solution)
Boiling Point Not available
Melting Point 2300 °C
Flash Point Not applicable
Upper Flammable Limit Not applicable
Lower Flammable Limit Not applicable

Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	2.2200
Water Solubility	Reacts violently with water evolving a flammable gas which may explode or catch fire.

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1 Reactivity	No data available.
10.2 Chemical Stability	Stable under normal conditions but decomposes violently in contact with water.
10.3 Possibility of hazardous reactions	No data available.
10.4 Conditions to Avoid	Avoid contact with water or water vapour.
10.5 Incompatible Materials	Contact with water or aqueous solutions evolves highly flammable acetylene gas.
10.6 Hazardous Decomposition Products	Decomposes to form flammable acetylene and very toxic and highly flammable phosphine gas.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Can cause severe burns or blindness on contact with the eyes and fumes from burning material are highly irritating.
Skin	Direct contact with moisture on the skin causes severe thermal and caustic burns.
LD50 Skin	Not available
Ingestion	Ingestion will cause severe mouth burns, and if swallowed extensive damage to the oesophagus.
LD50 Oral	Not available
Inhalation	Fumes from burning material are highly irritating to the upper respiratory tract.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	No information is available.
Mutagenicity	No information is available.
Reproductive Effects	No information is available.

Section 12. Ecological

12.1 Toxicity	Small amounts present no specific environmental hazard.
LC50 Algal	Not available
LC50 Crustacea	Not available
LC50 Fish	Not available
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 & vPvB assessment	Assessment not required.
12.6 Other adverse effects	None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Small amounts may be carefully decomposed in a large excess of water.
Contaminated Packaging	Very carefully wash out containers with water. Use a licensed waste disposer.

Section 14. Transport Information

14.1 UN Number	1402
14.2 Proper Shipping Name	Calcium carbide
14.3 Transport classes	
UN classification	4.3
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	423
Tunnel Restriction Code	D/E
14.4 Packing Group	II
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Contact with water > flam gas, category 1; Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 1; Spec target organ tox - single, category 3

Signal word Danger

Hazard Pictograms



Hazard Statements H260, H315, H318, H335
In contact with water releases flammable gases which may ignite spontaneously. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation.

Precautionary Statements P223, P231+P232, P280, P335+P334, P370+P380, P260
Keep away from any possible contact with water, because of violent reaction and possible flash fire. Handle under inert gas. Protect from moisture. Wear protective gloves / protective clothing / eye protection / face protection. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. In case of fire: Evacuate area. Do not breathe dust / fume / gas / mist / vapours / spray.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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