

Safety Data Sheet

Infosafe No™ ACE8L Issue Date : January 2022 ISSUED by ACECHEM

Product Name **CALCIUM CARBIDE**

Classified as hazardous

1. Identification

GHS Product Identifier	CALCIUM CARBIDE				
Product Code	C451570				
Company Name	ACE CHEMICAL COMPANY (ABN 35619819300)				
Address	119A Mooringe Avenue Camden Park SA 5038 AUSTRALIA				
Telephone/Fax Number	Tel: 08-8376 0844 Fax: 08-8295 8563				
Emergency phone number	0438760844				
E-mail Address	acechem@bigpond.com				
Recommended use of the chemical and restrictions on use	Generation of acetylene gas for welding, chloroethylenes, vinyl acetate monomer, acetylene chemicals, reducing agent and laboratory reagent.				
Other Names	<table><thead><tr><th><u>Name</u></th><th><u>Product Code</u></th></tr></thead><tbody><tr><td>Acetylenogen</td><td></td></tr></tbody></table>	<u>Name</u>	<u>Product Code</u>	Acetylenogen	
<u>Name</u>	<u>Product Code</u>				
Acetylenogen					
Other Information	Ace Chemical Company has taken care in compiling this information. No liability is accepted wether direct or indirect from its application since the conditions of final use are outside Ace Chemical Companies control.				

2. Hazard Identification

GHS classification of the substance/mixture	Eye Damage/Irritation: Category 1 Flammable Solids: Category 1 Hazardous to the Aquatic Environment - Acute Hazard: Category 2 Skin Corrosion/Irritation: Category 2 STOT Single Exposure: Category 3 (respiratory tract irritation)
Signal Word (s)	DANGER
Hazard Statement (s)	H228 Flammable solid. H315 Causes skin irritation. H318 Causes serious eye damage. H335 May cause respiratory irritation. H401 Toxic to aquatic life.
Pictogram (s)	Flame, Corrosion, Exclamation mark
Precautionary statement – Prevention	P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting//equipment. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement – Response	P302+P352 IF ON SKIN: Wash with plenty of soap and water. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P332+P313 If skin irritation occurs: Get medical advice/attention. P362 Take off contaminated clothing and wash before reuse.

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Precautionary statement – Storage P370+P378 In case of fire: Use for extinction.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Precautionary statement – Disposal P501 Dispose of contents/container to .

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Calcium Carbide	75-20-7	100 %

4. First-aid measures

Inhalation Remove victim to fresh air. If breathing has stopped, apply artificial respiration. If breathing is difficult, give oxygen. Allow victim to rest in a well ventilated area. Seek urgent medical assistance.

Ingestion If swallowed, do NOT induce vomiting. Seek immediate medical assistance.

Skin Quickly but gently, wipe material off skin. Remove contaminated clothing and wash affected skin with soap and water. Seek immediate medical advice.

Eye contact Remove contact lenses. Do NOT flush with water. Carefully remove particles with cotton applicator. Seek immediate medical assistance.

Other Information For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Specific Methods DO NOT USE WATER OR FOAM.
Small fire: Use dry chemical, soda ash, lime or sand.
If safe to do so, move undamaged containers from fire area.
Large fire: Use DRY sand, dry chemical, soda ash or lime or withdraw and let fire burn.
Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers.

Specific hazards arising from the chemical Produce flammable substances on contact with water. May ignite on contact with water or moist air. May react vigorously or explosively on contact with water. May be ignited by heat, sparks or flame. May re-ignite after fire is extinguished. Some are kept in or under flammable liquids. Fire will produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Runoff may create multiple fire or explosion hazard.

Hazchem Code 4YE

Precautions in connection with Fire Wear SCBA and chemical splash suit. Structural firefighter's uniform may provide limited protection.

6. Accidental release measures

Spills & Disposal ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25m. Do not touch or walk through spilled material. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Water spray may be used to knock down vapours or divert vapour clouds. DO NOT GET WATER inside containers or in contact with substance.
Small spill
Cover with DRY earth, sand or other non-combustible material followed by plastic sheet to minimize spreading or contact with rain.
Large Spill
SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

7. Handling and storage

Precautions for Safe Handling Avoid substance contact and generation and inhalation of dust.

Conditions for safe storage, including any incompatibilities Keep dry - reacts with water; may lead to drum rupture. Store away from sources of heat or ignition. Keep containers closed at all times. Store away from flammable materials.

8. Exposure controls/personal protection

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Other Exposure Information	A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by NOHSC Australia for this product. There is a blanket limit of 10 mg/m ³ for dusts when limits have not otherwise been established.
Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.
Body Protection	Flame retardant protective clothing. Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Appearance	Grayish-black, irregular lumps or granules.
Odour	Garlic-like, foul odour.
Melting Point	1700 - 2300 °C (approx.)
Solubility in Water	Decomposes in water with formation of acetylene and calcium hydroxide and evolution of heat.
Specific Gravity	2.20 @ 20 °C
Flammability	Flammable on contact with water.
Flammable Limits - Lower	Acetylene gas: 2.5 %
Flammable Limits - Upper	Acetylene gas: 82 %
Explosion Properties	Produces highly explosive acetylene gas on contact with water or moisture.
Molecular Weight	64.10

10. Stability and reactivity

Chemical Stability	Stable if kept dry.
Conditions to Avoid	Wet conditions.
Incompatible Materials	Water, acids, unalloyed copper, silver and mercury.
Hazardous Decomposition Products	Highly flammable and explosive acetylene gas and corrosive calcium hydroxide are formed on contact with water. Hydrated lime, acetylene and heat are generated during the reaction with water.
Possibility of hazardous reactions	In contact with water, rapidly evolves acetylene, ignited by the heat of the reaction. Acetylene forms highly explosive compounds with salts of some heavy metals. Reacts vigorously with acids.

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11. Toxicological Information

Ingestion	Harmful if swallowed. May cause internal irritation and flatulence.
Inhalation	Causes irritation and/or burns to the respiratory system.
Skin	Causes irritation and/or burns to the skin.
Eye	May cause irritation, burns and serious damage to the eye.
Carcinogenicity	Not listed in the IARC Monographs.

12. Ecological information

Ecological Information	No ecological problems are to be expected when the product is handled and used with due care and attention. Calcium carbide reacts with water to form calcium hydroxide.
Persistence and degradability	Methods for the determination of biodegradability are not applicable to inorganic substances.
Environmental Fate	Behaviour in environmental compartments: Concentration in organisms is not to be expected.
Other Adverse Effects	Calcium hydroxide forms corrosive mixtures with water even if diluted. Neutralization possible in waste water treatment plants.
Information on Ecological Effects	Harmful effect due to pH shift.
Acute Toxicity - Fish	The following applies to calcium hydroxide: Gambusia affinis LC50: 160 mg/l/96 h.

13. Disposal considerations

Waste Disposal	Dispose of according to relevant local, state and federal government regulations.
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14. Transport information

Transport Information	Dangerous goods of Class 4.3 (Dangerous When Wet) are incompatible in a placard load with any of the following: Class 1, Class 2.1, Class 5, Class 7, Class 8.
U.N. Number	1402
UN proper shipping name	CALCIUM CARBIDE
Transport hazard class(es)	4.3
Hazchem Code	4YE
Packing Group	II
EPG Number	4E3
IERG Number	26

15. Regulatory information

Poisons Schedule	Not Scheduled
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16. Other Information

Literature References	Commonwealth Department of Health and Aged Care, 'Standard for the Uniform Scheduling of Drugs and Poisons No. 22', Commonwealth of Australia, Canberra 2007. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007. South Australia Government, 'Approved Code of Practice for the Labelling of Workplace Substances', 1995. Standards Australia 'AS 1940-2004 The Storage and Handling of Flammable and
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Combustible Liquids.
Standards Australia, 'SAA/SNZ HB 76:2004 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, August 2004.
Worksafe Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)]', AusInfo, Canberra 2004.
Worksafe Australia, 'Hazardous Substances Information System, 2005'.
Worksafe Australia, 'National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]', AGPS, Canberra 1994.
Worksafe Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]', AusInfo, Canberra 1995.

Contact Person/Point

Ace Chemical Company
119A Mooringe Avenue
Camden Park S.A. 5038
Tel: 08-8376 0844 Fax: 08-8295 8563
or Poisons Information Centre
Tel: 13 11 26

Disclaimer:

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**Empirical Formula
& Structural
Formula**

CaC2

...End Of MSDS...

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