Infosafe No™ 1CHA0	Issue Date :January 2021	RE-ISSUED by CHEMSUPP

Product Name **CALCIUM CARBIDE**

Classified as hazardous

1. Identification

GHS Product Identifier	CALCIUM CARBIDE
Company Name	CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia
Telephone/Fax Number	Tel: (08) 8440-2000
Emergency phone number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)
E-mail Address	www.chemsupply.com.au
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

Name	Product Code
CALCIUM CARBIDE Lump TG	CT166
Acetylenogen	

Other Information

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture	Substances and Mixtures which, in contact with water, emit flammable gases: Category 1 Skin corrosion/irritation: Category 2 Serious eye damage/eye irritation: Category Specific target organ toxicity - single exposure: Category 3
Signal Word (s)	DANGER
Hazard Statement (s)	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.
Pictogram (s)	Flame,Corrosion,Exclamation mark

Precautionary statement – 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. P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. P264 Wash…thoroughly after handling. P271Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response	P335+P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P332 + P313 If skin irritation occurs: Get medical advice/attention. P362 Take off contaminated clothing and wash before reuse. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/ physician if you feel unwell. 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. P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Precautionary statement – Storage	P402+P404 Store in a dry place. Store in a closed container. P403 + P233 Store in a wellventilated place. Keep container tightly closed. P405 Store locked up.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

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

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately, avoid becoming a casualty. Make patient comfortable, keep warm and at rest until fully recovered. If breathing is difficult (or develops a bluish skin discolouration), supply oxygen by a qualified person. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Seek medical attention if effects persist.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
Skin	Quickly but gently, wipe material off skin. Remove contaminated clothing and wash affected skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact	Remove contact lenses. Do NOT flush with water. Carefully remove particles with cotton applicator. Seek immediate medical assistance.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
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

Hazards from Combustion Products	May liberate toxic fumes in fire such as calcium oxide.
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	Produces flammable substances (acetylene gas) on contact with water. May ignite on contact with water or moist air. Can react vigorously or explosively on contact with water. May be ignited by heat, sparks or flame. May re-ignite after fire is extinguished.
Hazchem Code	4W

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. 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.
Personal Precautions	Evacuate the area of all non-essential personnel. Remove ignition sources Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)

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.
Storage Regulations	Refer Australian Standard AS/NZS 5026-2012 'The storage and handling of Class 4 dangerous goods'. Refer Australian Standard AS/NZS 2243.10:2004 'Safety in laboratories - Storage of chemicals'.

8. Exposure controls/personal protection

Other Exposure Information	No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise specified is 10 mg/m3. All atmospheric contamination should be kept to as low a level as is workable. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
Appropriate engineering controls	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	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.

Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
Body Protection	Flame retardant antistatic 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

Form	Solid
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
pH	12.48 at 20g/l.
Flammability	Flammable on contact with water.
Auto-Ignition Temperature	390°C
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	Exposure to moisture, heat, flames and sparks.
Incompatible Materials	Water, acids, oxidising agents, 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.

11. Toxicological Information

Toxicology Information	No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. If mishandled or overexposed to this product the following symptoms or effects may occur.
Ingestion	May cause internal irritation.
Inhalation	Causes irritation to the respiratory system.
Skin	Causes irritation to the skin.
Eye	May cause irritation, burns and serious damage to the eye.
Respiratory sensitisation	Not classified based on available information.

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Skin Sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Not classified based on available information.
Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Not classified based on available information.
Serious eye damage/irritation	H318 Causes serious eye damage.
Mutagenicity	No evidence of mutagenic properties.

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.
Information on Ecological Effects	Harmful effect due to pH shift.

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

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	4W
Packing Group	II
EPG Number	4E3
IERG Number	26

15. Regulatory information

Regulatory Information	All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	Not Scheduled

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'.

	Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.
Empirical Formula & Structural Formula	CaC2

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