

Material Safety Data Sheet



Calcium Carbide, Lump

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Carolina Biological Supply Company

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CAROLINA
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Section 1 - Product Description

Product Name: Calcium Carbide Lump

Product Code(s): 85-1700

Size: 500 g

Chemical Name: Calcium Carbide

CAS Number: 75-20-7

Formula: CaC₂/CaO

Synonyms: Acetylenogen, Carbide

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: Flammable. Reacts violently with water, liberating extremely flammable gases. Harmful if swallowed. Irritating to eyes and skin.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation to skin.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Calcium Carbide, Lump (CAS# 75-20-7) 65-85%; Calci

TLV units: ACGIH-TLV 2 mg/m³ (TWA)

PEL units: OSHA-PEL 5 mg/m³ (TWA)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Ingestion - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. If swallowed, rinse mouth with water (only if the person is conscious).

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): Flash Point of generated acetylene gas is 0 °C

NFPA Rating:

Health: 3

Fire: 3

Reactivity: 2

Extinguisher Media: Use dry chemical or cover with dry sand or lime.

Flammable Limits in Air % by Volume: Acetylene gas LEL: 2.5% UEL: 100%

Autoignition Temperature: Temperature of generated Acetylene Gas is 305 °C

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Reacts violently with water, liberating extremely flammable gases.

Never add water to this product.

Above flashpoint, explosive vapor-air mixtures may be formed.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Risk of explosion by shock, friction, fire or other sources of ignition.

Do not use copper ground strap or cable.

Keep away from combustible material.

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Keep away from ... (incompatible materials to be indicated by the manufacturer).

Keep container dry.

Keep away from sources of ignition - No smoking.

Never add water to this product. Keep container tightly closed in a cool, well-ventilated place.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes (Explosion Proof)

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: 64.1

Boiling Point: N/A

Vapor Density(Air=1): N/A

Percent Volatile by Volume: N/A

Solubility in Water: Soluble

odor of acetylene (garlic-like) always present.

Melting Point: 2300 °C

Vapor Pressure: N/A

Specific Gravity (H₂O=1): 2.22 at 20 °C

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: Gray-bluish black, rock-like appearance;

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Water; Product is water reactive.

Incompatibility (Materials to Avoid): Metals, Water,

Hazardous Decomposition Products: Hydrocarbons, CaOH₂

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: N/A

Effects of Overexposure:

Acute: See Section 2

Chronic: N/A

Conditions Aggravated by Overexposure: Respiratory disorders, Skin disorders, Eye disorders,

Target Organs: Respiratory system, Skin, Eyes,

Primary Route(s) of Entry: N/A

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: UN1402, Calcium Carbide, 4.3, II

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:

No

Chemical Category:

No

CERCLA Section 103 RQ(lb.): 10

RCRA Section 261.33: No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million

RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act