

# FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

## Material Safety Data Sheet (MSDS)

MSDS #: 194.00

Revision Date: June 18, 2001

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### Section 1 — Chemical Product and Company Identification

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#### Calcium Carbide

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

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### Section 2 — Composition, Information on Ingredients

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Calcium Carbide

Synonym: Calcium Acetylide

CAS#: 75-20-7

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### Section 3 — Hazards Identification

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Rock-like, grayish-black solid; odor of acetylene always present. Garlic like odor.

Corrosive. Avoid all body tissue contact.

Exposure to water or moisture evolves flammable acetylene.

#### FLINN AT-A-GLANCE

Health-1

Flammability-3

Reactivity-3

Exposure-1

Storage-2

0 is low hazard, 3 is high hazard

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### Section 4 — First Aid Measures

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Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Give no more than 1-2 cups of water for dilution. Do not induce vomiting. Call a physician or poison control at once.

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### Section 5 — Fire Fighting Measures

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Flammable solid. Exposure to water or moisture evolves flammable acetylene. 500 g of calcium carbide will yield approx. 150L of flammable acetylene. **Fire Fighting Instructions:**

Use Class D, Met-L-X, or dry sand as a fire extinguisher. Do not use CO<sub>2</sub>, halogenated extinguishing agent, or water: violent reaction with water. Firefighters should wear PPE and SCBA with full facepiece operating in positive mode.

#### NFPA CODE

H-3

F-3

R-2

No Water

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### Section 6 — Accidental Release Measures

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Restrict unprotected personnel from area. Remove all ignition sources and water. Sweep up, place in sealed bag or container and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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### Section 7 — Handling and Storage

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Flinn Suggested Chemical Storage Pattern: Inorganic #5. Store with sulfides, phosphides, carbides and nitrides.

Store in a cool dry place. Store in a Flinn Chem-Saf bag and then inside a Flinn Saf-Stor can. Use and dispense in a hood.

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### Section 8 — Exposure Controls, Personal Protection

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Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron.

Use exhaust ventilation to keep airborne concentrations low.

### Section 9 — Physical and Chemical Properties

Rock-like, grayish-black; odor of acetylene always present.  
Garlic-like odor.  
Solubility: Reacts with water-decomposes in water.  
Forms calcium hydroxide and acetylene with much heat.  
Formula: CaC<sub>2</sub>  
Formula Weight: 64.10

Specific Gravity: 2.22

### Section 10 — Stability and Reactivity

Exposure to moisture; decomposes in water to form acetylene and calcium hydroxide. Store in a metal can or a flammables cabinet.  
Avoid contact with water, acids, halogens, silver nitrate, copper compounds and heavy metals.  
Shelf life: Good if stored under dry conditions.

### Section 11 — Toxicological Information

Acute effects: Corrosive  
Chronic effects: N.A.  
Target organs: N.A.

ORL-RAT LD50: N.A.  
IHL-RAT LC50: N.A.  
SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

### Section 12 — Ecological Information

Data not yet available.

### Section 13 — Disposal Considerations

Please consult with state and local regulations.  
Flinn Suggested Disposal Method #25 is one option.

### Section 14 — Transport Information

Shipping Name: Calcium Carbide  
Hazard Class: 4.3, Dangerous when wet  
UN Number: UN1402

N/A = Not applicable

### Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (200-848-3), RCRA code D001, D003.

### Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

**FLINN SCIENTIFIC INC.**

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*Flinn Chemical Packaging Prevents Accidents*

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