

## Safety Data Sheet (SDS)

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Calcium Carbide

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261  
Chemtrec Emergency Phone Number: (800) 424-9559

**Signal Word**  
**DANGER**

Pictograms

### SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Substances and mixtures which, in contact with water, emit flammable gases (Category 2). In contact with water releases flammable gas (H261). Handle under inert gas. Protect from moisture (P231+P232).



Hazard class: Skin corrosion (Category 1). Causes severe skin burns and eye damage (H314). Do not breathe dust or fumes (P260).



### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Calcium carbide	75-20-7	CaC <sub>2</sub>	64.1	
Synonyms: Calcium acetylide				

### SECTION 4 — FIRST AID MEASURES

Immediately call a POISON CENTER or physician (P310).

**If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340).

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338).

**If on skin or hair:** Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353).

**If swallowed:** Rinse mouth. Do NOT induce vomiting (P301+P330+P331).

### SECTION 5 — FIRE FIGHTING MEASURES

Flammable solid. Exposure to water or moisture evolves flammable acetylene. 500 g of calcium carbide will yield approximately 150L of flammable acetylene.

In case of fire: Use a tri-class dry chemical fire extinguisher (P370+P378).

**NFPA Code**  
H-3  
F-3  
R-2  
No Water

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**SECTION 6 — ACCIDENTAL RELEASE MEASURES**

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Remove all ignition sources and water. Do NOT use water, sweep up the spill, place in a 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 only in a hood or in a well ventilated area.

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**SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION**

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Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Use only in a hood or in a well ventilated area.

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Rocklike, grayish-black. Odor of acetylene always present. Specific gravity: 2.22  
Garlic like odor.  
Soluble: Reacts and decomposes with water.  
Forms calcium hydroxide and acetylene with much heat.

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**SECTION 10 — STABILITY AND REACTIVITY**

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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.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Corrosive.	ORL-RAT LD <sub>50</sub> : N.A.
Chronic effects: N.A.	IHL-RAT LC <sub>50</sub> : N.A.
Target organs: N.A.	SKN-RBT LD <sub>50</sub> : N.A.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please review all federal, state and local regulations that may apply before proceeding.  
Flinn Suggested Disposal Method #25 is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Calcium Carbide. Hazard class: 4.3, Dangerous when wet. UN number: UN1402.

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**SECTION 15 — REGULATORY INFORMATION**

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

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**SECTION 16 — OTHER INFORMATION**

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OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

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

N/A = Not applicable

**Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.**

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