



SDS #: 194

Revision Date: July 8, 2015

Calcium Carbide Safety Data Sheet (SDS)

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Calcium Carbide

Signal Word
DANGER

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

Chemtrec Emergency Phone Number: (800) 424-9559

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 ₂	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

SECTION 6 — ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 — HANDLING AND STORAGE

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.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

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.

SECTION 10 — STABILITY AND REACTIVITY

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.

ORL-RAT LD₅₀: N.A.

Chronic effects: N.A.

IHL-RAT LC₅₀: N.A.

Target organs: N.A.

SKN-RBT LD₅₀: N.A.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.

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.

SECTION 15 — REGULATORY INFORMATION

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

SECTION 16 — OTHER INFORMATION

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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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