

# CALCIUM CARBIDE

CCB

CAUTIONARY RESPONSE INFORMATION			
Common Synonyms Acetylenogen Carbide	Solid granules	Grey to bluish black	Garlic odor
Sinks in water, and bubbles appear on surface as flammable gas is produced.			
Evacuate. Shut off ignition sources and call fire department. Keep people away. Avoid contact with solid and gas. Stay upwind. Notify local health and pollution control agencies. Protect water intakes.			
Fire	Not flammable. FLAMMABLE, EXPLOSIVE GAS IS PRODUCED ON CONTACT WITH WATER. Let fire burn. DO NOT USE WATER OR FOAM ON ADJACENT FIRES.		
Exposure	CALL FOR MEDICAL AID.  SOLID Irritating to skin and eyes. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water.		
Water Pollution	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. Notify local health and wildlife officials.		

1. CORRECTIVE RESPONSE ACTIONS	2. CHEMICAL DESIGNATIONS
Dilute and disperse Stop discharge	2.1 CG Compatibility Group: Not listed. 2.2 Formula: CaC <sub>2</sub> 2.3 IMO/UN Designation: 4.3/1402 2.4 DOT ID No.: 1402 2.5 CAS Registry No.: 75-20-7 2.6 NAERG Guide No.: 138 2.7 Standard Industrial Trade Classification: 52493
3. HEALTH HAZARDS	
3.1 Personal Protective Equipment: Chemical safety goggles and (for those exposed to unusually dusty operations) a respirator such as those approved by the U.S. Bureau of Mines for "nuisance dusts."	
3.2 Symptoms Following Exposure: Eye and skin irritation	
3.3 Treatment of Exposure: INHALATION OF DUST: remove from further exposure and call a doctor. SKIN: wash with plenty of water. EYES: flush with clean running water at an eye wash fountain for at least 15 min. and get medical attention.	
3.4 TLV-TWA: Not listed. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed.	
3.7 Toxicity by Ingestion: Not pertinent 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: None	
3.10 Vapor (Gas) Irritant Characteristics: None 3.11 Liquid or Solid Characteristics: Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of the skin.	
3.12 Odor Threshold: Currently not available 3.13 IDLH Value: Not listed. 3.14 OSHA PEL-TWA: Not listed. 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA AEGL: Not listed	

4. FIRE HAZARDS	7. SHIPPING INFORMATION
4.1 Flash Point: Not flammable	7.1 Grades of Purity: Currently not available
4.2 Flammable Limits in Air: Not flammable	7.2 Storage Temperature: Currently not available
4.3 Fire Extinguishing Agents: Dry powder: preferably allow fire to burn	7.3 Inert Atmosphere: Currently not available
4.4 Fire Extinguishing Agents Not to Be Used: Water, vaporizing liquid or foam, carbon dioxide	7.4 Venting: Currently not available
4.5 Special Hazards of Combustion Products: Not pertinent	7.5 IMO Pollution Category: Currently not available
4.6 Behavior in Fire: If wet by water, highly flammable acetylene gas is formed.	7.6 Ship Type: Currently not available
4.7 Auto Ignition Temperature: Not flammable	7.7 Barge Hull Type: Currently not available
4.8 Electrical Hazards: Not pertinent	8. HAZARD CLASSIFICATIONS
4.9 Burning Rate: Not flammable	8.1 49 CFR Category: Dangerous When Wet
4.10 Adiabatic Flame Temperature: Currently not available	8.2 49 CFR Class: 4.3
4.11 Stoichiometric Air to Fuel Ratio: Not Pertinent	8.3 49 CFR Package Group: I
4.12 Flame Temperature: Currently not available	8.4 Marine Pollutant: No
4.13 Combustion Molar Ratio (Reactant to Product): Not Pertinent	8.5 NFPA Hazard Classification:
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed	Category Classification Health Hazard (Blue)..... 1 Flammability (Red)..... 4 Instability (Yellow)..... 2 Special (White)..... W
5. CHEMICAL REACTIVITY	8.6 EPA Reportable Quantity: 10 pounds
5.1 Reactivity with Water: Reacts vigorously with water to form the highly flammable acetylene gas, which may ignite spontaneously.	8.7 EPA Pollution Category: A
5.2 Reactivity with Common Materials: Reacts with copper and brass to form explosive compound.	8.8 RCRA Waste Number: Not listed
5.3 Stability During Transport: Stable in absence of moisture	8.9 EPA FWPCA List: Yes
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent	9. PHYSICAL & CHEMICAL PROPERTIES
5.5 Polymerization: Not pertinent	9.1 Physical State at 15° C and 1 atm: Solid
5.6 Inhibitor of Polymerization: Not pertinent	9.2 Molecular Weight: 64.10
6. WATER POLLUTION	9.3 Boiling Point at 1 atm: Not pertinent
6.1 Aquatic Toxicity: Not pertinent	9.4 Freezing Point: Not pertinent
6.2 Waterfowl Toxicity: Not pertinent	9.5 Critical Temperature: Not pertinent
6.3 Biological Oxygen Demand (BOD): Not pertinent	9.6 Critical Pressure: Not pertinent
6.4 Food Chain Concentration Potential: None	9.7 Specific Gravity: 2.22 at 18°C(solid)
6.5 GESAMP Hazard Profile: Not listed	9.8 Liquid Surface Tension: Not pertinent
9.9 Liquid Water Interfacial Tension: Not pertinent	
9.10 Vapor (Gas) Specific Gravity: Not pertinent	
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent	
9.12 Latent Heat of Vaporization: Not pertinent	
9.13 Heat of Combustion: Not pertinent	
9.14 Heat of Decomposition: Not pertinent	
9.15 Heat of Solution: Not pertinent	
9.16 Heat of Polymerization: Not pertinent	
9.17 Heat of Fusion: Currently not available	
9.18 Limiting Value: Currently not available	
9.19 Reid Vapor Pressure: Currently not available	

## NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
NOT PERTINENT			NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
REACTS			NOT PERTINENT		NOT PERTINENT		NOT PERTINENT