

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Calcium Carbide

CAS number 75-20-7

Synonyms Calcium Acetylide, Phenyl Glyceryl Ether Diacetate

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Ripening agent, deoxidizing agent, PVC manufacturing, steel industry

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
12501 Pauls Valley Road
Austin, Texas 78737
U.S.A.

Telephone 512-668-9918
Fax 512-886-4008

1.4 Emergency telephone

Emergency Phone # US & Canada: 1-800-535-5053
International 1-352-323-3500

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable gases: Category 1
Skin irritation: Category 2
Specific target organ toxicity following single exposure: Category 3
Serious eye damage: Category 1
Aquatic acute toxicity: Category 2

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	In contact with water releases flammable gases which ignite spontaneously. Cause skin irritation. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Toxic to aquatic life.
Precautionary statements	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Keep away from any possible contact with water, because of violent reaction and possible flash fire. Handle under inery gas. Protect from moisture. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Specific treatment (see supplemental first aid instructions on this label). If skin irritation occurs: Get medical advice/attention. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. Take off contaminated clothing and wash before reuse. In case of fire: Use agents recommended in section 5 for extinction. Store in a dry place. Store in a closed container. Store in a well ventilated place. Keep container tightly closed. Store locked up. Dispose of contents and container as instructed in Section 13.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS



SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Calcium carbide	Calcium acetylide	75-20-7	>90%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Seek medical attention. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Loosen clothing and place exposed in a comfortable position.
In case of skin contact	Wash hands and exposed skin with soap and plenty of water. Seek medical attention if irritation persists or if concerned.

In case of eye contact	Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Seek medical attention if irritation persists or concerned.
If swallowed	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Dilute with water or milk. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Irritation. Shortness of breath. Headache. Nausea. Dizziness. Inhalation - May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Dry powder

Unsuitable extinguishing media No information available

5.2 Specific hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. Reacts violently with water. Contact with moisture to form flammable acetylene gas. Contact with acid or acid fumes evolves heat and flammable vapors.

5.3 Special protective equipment and precautions for firefighters

Wear protective eyewear, gloves, and clothing. Refer to Section 8.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available.

Lower No data available.

Sensitivity to Mechanical Impact

No information available.

Sensitivity to Static Discharge

No information available.

NFPA

Health	Flammability	Instability	Physical hazards
2	3	1	1

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Ensure that air-handling systems are operational.

6.2 Environmental precautions

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

6.3 Methods and materials for containment and cleaning up

Wear protective eyewear, gloves, and clothing. Refer to Section 8. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe area. Containerise for disposal. Refer to Section 13. Keep in suitable closed containers for disposal.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.

Hygiene measures

No information available.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible.

Incompatibilities

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

No information available.

US. ACGIH Threshold Limit Values

No information available.

US. NIOSH: Pocket Guide to Chemical Hazards

No information available.

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits - OELs) indicated above

Personal protective equipment

Eye/face protection

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU). Face shield and safety glasses are appropriate eye protection.

Skin protection

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper gloves removal technique without touching outer surface. Avoid skin contact with use gloves. Wear protective clothing.

Respiratory protection

Not required under normal conditions of use. Where risk assessment shows airpurifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Control of environmental exposure

No additional information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Fragments
Appearance	Black-gray solid
Odor	Garlic-like
Odor Threshold	No information available
pH	12.48 at 20 g/l
Melting Point/Range	2,300 °C
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Density	2.22 g/cm ³ at 25 °C
Solubility	No information available
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	390 °C
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	No information available
Molecular Weight	No information available
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reacts vigorously with water or form highly flammable acetylene gas, which may ignite spontaneously.

10.2 Chemical stability

Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

Lime may also be formed raising the pH of the solution and causing a white precipitate. Reacts violently with water

10.4 Conditions to avoid

Exposure to moisture. Incompatible materials.

10.5 Incompatible materials

Strong oxidizing agents. Reacts violently with water.

10.6 Hazardous decomposition products

Calcium oxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

No information available

Skin corrosion/irritation

No information available

Serious eye damage/eye irritation

No information available

Respiratory or skin sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Calcium Carbide	75-20-7	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory.

Specific target organ toxicity - repeated exposure

No additional information.

Reproductive toxicity

No additional information.

Chronic effects

No additional information.

11.2 Additional Information

No additional information.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Calcium Carbide	75-20-7	Oncorhynchus mykiss (rainbow trout)	LC50 - >50 mg/l - 96 h
	75-20-7	Daphnia magna (Water flea)	EC50 - 4.62 mg/l - 48 h
	75-20-7	Desmodesmus subspicatus	EC50 - 46 mg/l - 72 h

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra in igniting

SECTION 14: Transport information

DOT (US)

UN Number	UN1402
Proper Shipping name	CALCUM CARBIDE
Hazard Class	4.3
Packaging Group	I

IMDG

UN Number UN1402
Proper Shipping name CALCIUM CARBIDE
Hazard Class 4.3
Packaging Group I

IATA

UN Number UN1402
Proper Shipping name CALCIUM CARBIDE
Hazard Class 4.3
Packaging Group I

SECTION 15: Regulatory information

US federal This product is a "Hazardous Chemical" as defined by the OSHA Hazard

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Listed (Calcium Carbide)

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed (Calcium Carbide) (10 lbs)

SARA 304 Emergency release notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not regulated.

SARA 311/312 Hazardous

Listed. Reactive, Acute.

SARA 313 (TRI reporting)

Not regulated

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated

Safe Drinking Water Act

Not regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Not listed

US. New Jersey Worker and Community Right-to-Know Act

Not listed

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed

California Proposition 65

Not listed

SECTION 16: Other information

Date of Issue: 9/3/2025

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.