

Common Name: **CALCIUM SILICIDE**

Synonyms: Calcium Disilicide; Calcium Silicon

CAS No: 12013-56-8

Molecular Formula: CaSi_2

RTK Substance No: 0332

Description: Gray to black or brown, powder or chip with a repulsive odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
1 - Health 3 - Fire 2-W - Reactivity DOT#: UN 1405 ERG Guide #: 138 Hazard Class: 4.3 (Water Reactive)	FLAMMABLE AND REACTIVE WATER REACTIVE Use sand, soda ash, lime or dry chemicals appropriate for extinguishing metal fires. DO NOT USE WATER or FOAM. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Silicon Oxides</i> and <i>Hydrogen</i> . CONTAINERS MAY EXPLODE IN FIRE. DO NOT get water into containers.	Calcium Silicide reacts violently and/or explosively with WATER, STEAM, MOIST AIR, and FLUORINE. Calcium Silicide reacts with STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC) to form self-igniting and toxic <i>Silane gas</i> . Calcium Silicide is not compatible with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); BORON; and IODINE.

SPILL/LEAKS

Isolation Distance:
Spill: 25 meters (75 feet)

Fire: 800 meters (1/2 mile)

Cover with dry lime, sand or soda ash and place into sealed containers for disposal.

DO NOT USE WATER OR WET METHOD.

Keep **Calcium Silicide** out of confined spaces, such as sewers, because of the possibility of an explosion.

PHYSICAL PROPERTIES

Odor Threshold:	Repulsive odor
Flash Point:	Flammable
Auto Ignition Temp:	1,472°F (800°C)
Specific Gravity:	2.5 (water = 1)
Water Solubility:	Decomposes in hot water
Melting Point:	1,292° to 1,715°F (700° to 935°C)
Molecular Weight:	96.25

EXPOSURE LIMITS

No occupational exposure limits have been established for **Calcium Silicide**.

PROTECTIVE EQUIPMENT

Gloves:	Nitrile and Polyvinyl Chloride
Coveralls:	Tyvek®
Respirator:	SCBA

HEALTH EFFECTS

Eyes:	Irritation
Skin:	Irritation
Inhalation:	Nose, throat and lung irritation

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.

Remove contaminated clothing and wash contaminated skin with soap and water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer promptly to a medical facility.