

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: ACTCHEM 45G
Recommended Use: Refractory Material
Supplier: Artech Technologies, Inc.
Manufacturer: Xertech Specialties LLC
Manufacturer Address: 1422 Hoelzer Ct., Dailey Industrial Park, Pacific, MO 63069
General Phone: (636) 271-0586 **Fax:** (636) 271-0587
Emergency Phone: (636) 271-0586 7:00-15:00 CST Monday-Friday

SECTION 2 - HAZARDS IDENTIFICATION
GHS/US CLASSIFICATION


GHS-07



GHS-08

Signal Word: Danger

Hazard Statements:

H315 Causes skin irritation
 H320 Causes eye irritation
 H350 May cause cancer (Inhalation)
 H372 Causes damage to lungs through prolonged or repeated inhalation

Precautionary Statements:

P260 Do not breathe dust
 P264 Wash hands thoroughly after handling
 P270 Do not eat, drink, or smoke when using this product
 P280 Wear eye protection, dust respirator, protective gloves

SECTION 3 – COMPOSITION/INFORMATION ON MIXTURE INGREDIENTS

| COMPONENT | CAS No. | % | GHS-US Classification |
|--------------------------|------------|-------|--|
| Calcium Aluminate Cement | 65997-16-2 | 7-13 | Skin Irrit. 2, H315 Eye Irrit. 2B, H320 |
| Cristobalite | 14464-46-1 | 0.1-1 | Carcinogen 1A, H350 STOT RE 1, H372 |
| Silica, Amorphous | 69012-64-2 | 5-10 | Skin Irrit. 2, H315 Eye Irrit. 2B, H320 |

SECTION 4 – FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

- Inhalation:** Move person to fresh air. Call a physician if symptoms develop or persist.
- Skin Contact:** Wash off with soap and water. Seek medical attention if irritation develops and persists.
- Eye Contact:** Rinse eyes with water for several minutes. Seek medical attention if irritation develops.
- Ingestion:** Rinse mouth. Do not induce vomiting. Seek medical attention.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Inhalation:** May cause cancer by inhalation. Danger of serious damage to health by prolonged exposure through inhalation.
- Skin Contact:** Causes skin irritation.
- Eye Contact:** Causes eye irritation.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically

SECTION 5 – FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Suitable Extinguishing Media: Water spray, dry powder, foam

Unsuitable Extinguishing Media: None known

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous Combustion Products: Not combustible. Hydraulic setting.

ADVICE FOR FIREFIGHTERS

Fire Fighting Instructions: Fire-fighters should use standard protective equipment in enclosed spaces, self-contained breathing apparatus (SCBA).

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

For Non-Emergency Personnel: Ensure area is as well ventilated as possible before tackling spillage. Avoid contact with skin and eyes. Do not breathe dust.

For Emergency Responders: Do not attempt to take action without suitable protective equipment, including respiratory protection. For further information, refer to Section 8.

ENVIRONMENTAL PRECAUTIONS

General: Avoid release to the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

For Cleaning Up: Sweep or shovel into suitable containers. Minimize generation of dust.

REFERENCE TO OTHER SECTIONS

General: See sections 8 and 13.

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Do not breathe dust or vapors. Provide good ventilation at all times. Keep out of the reach of children. Wash contaminated clothing before reuse. Always wash hands after handling the product.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store this product in original packaging in a dry location where it can be protected from the elements.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONTROL PARAMETERS

| COMPONENT | ACGIH TLV | OSHA PEL (TWA) |
|--|---|---|
| Calcium Aluminate Cement (65997-16-2) | 3 mg/m ³ resp. 10 mg/m ³ inhalable | 10 mg/m ³ total 5 mg/m ³ resp. |
| Cristobalite (14464-46-1) | 0.025 mg/m ³ resp. | 0.05 mg/m ³ resp. |
| Silica, Amorphous (69012-64-2) | Withdrawn | 80 mg/m ³ SiO ₂ |

Notes: TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

EXPOSURE CONTROLS

Appropriate Engineering Controls: Ensure adequate ventilation.

Individual Protection Measures, Such As Personal Protective Equipment: Wear appropriate dust mask. Wear protective gloves. Avoid contact with eyes. Wear goggles, suitable protective clothing, and closed footwear. Wash hands before eating, drinking, and/or smoking.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|----------------------------|-------------------|--------------------------|-------------------|
| Physical State: | Solid | Vapor Pressure: | Not applicable |
| Appearance: | Granular mixture | Vapor Density (Air = 1): | Not applicable |
| Color: | Light grey | Relative Density: | 2.2 |
| Odor: | Earthy odor | Solubility: | Water: Slight |
| pH: | No data available | Partition Coefficient: | No data available |
| Melting Point: | >2300 °F | Auto-ignition Temp: | No data available |
| Freezing Point: | Not applicable | Decomposition Temp: | No data available |
| Boiling Point: | Not applicable | Viscosity: | Not applicable |
| Flash Point: | Not applicable | Explosive Properties: | No data available |
| Evaporation Rate: | Not applicable | Oxidizing Properties: | No data available |
| Flammability (solid, gas): | Not applicable | | |

SECTION 10 – STABILITY AND REACTIVITY

REACTIVITY: Product is non-reactive under normal conditions of use, storage, and transport.

CHEMICAL STABILITY: Product is stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: No dangerous reactions known during recommended use.

CONDITIONS TO AVOID: Avoid dust formation. Avoid heating in fire.

INCOMPATIBLE MATERIALS: None detailed.

HAZARDOUS DECOMPOSITION PRODUCTS: No additional information available.

SECTION 11 – TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Carcinogenicity:

Cristobalite: IARC Group 1 – Carcinogenic to humans

Amorphous Silica: IARC Group 3 – not classifiable as to its carcinogenicity to humans (ACGIH).

Acute Toxicity:

Cristobalite: Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.

Amorphous Silica: ORAL acute (LD50): 3,160 mg/kg (rat). INTRAVENOUS acute (LD50): 15 mg/kg (Rat). (RTECS) (2009). Registry of Toxic Effects of Chemical Substances, NIOSH, CDC

Toxicity:

Cristobalite: Silicosis can occur with the inhalation and retention of respirable crystalline silica dust. Chronic silicosis can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Silicosis is characterized by lung lesions shown as radiographic opacities. The symptoms, if present, are shortness of breath, wheezing, cough and sputum production. Silicosis or PMF may lead to death. Advanced complicated silicosis or PMF can result in heart disease secondary to the lung disease.

Amorphous Silica: Tuberculosis

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY: This product is not considered harmful to aquatic organisms or to cause long-term adverse effect in the environment.

PERSISTENCE AND DEGRADABILITY: No additional information available

BIOACCUMULATIVE POTENTIAL: No data available

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: No adverse effects are expected

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

Waste Disposal Recommendations: Dispose in a safe manner in accordance with local regulations.

Ecology – Waste Materials: Avoid release to the environment.

SECTION 14 – TRANSPORT INFORMATION

In accordance with DOT, not regulated for transport

This product is not regulated for transport according to ADR/RID/ADN, IMDG, ICAO-TI/IATA-DGR

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15 – REGULATORY INFORMATION

US STATE REGULATIONS

U.S. California – Proposition 65: This product contains crystalline silica, a chemical known to the state of California to cause cancer.

INTERNATIONAL REGULATIONS

Cristobalite (14464-46-1): IARC Group 1 (International Agency for Research on Cancer)

Canadian WHMIS Classification: D2A

SECTION 16 – OTHER INFORMATION

ABBREVIATIONS

ACGIH: American Conference of Governmental Industrial Hygienists

DOT: Department of Transportation

IARC: International Agency for Research on Cancer

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

STOT RE 1: Specific Target Organ Toxicity, Repeated Exposure

WHMIS: Workplace Hazardous Materials Information System (Canada)

DISCLAIMER: Reasonable care has been taken in the preparations of the information provided, and it is believed to be accurate as of the preparation date. However, Artech Technologies LLC and/or Xertech Specialties LLC make no representation or warranties, and assumes no responsibility as to the completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purpose prior to use. Artech Technologies LLC and/or Xertech Specialties LLC assume no liability to any user thereof, nor shall this establish a legally valid contractual relationship to the product.