

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier:** ACTCHEM 85  
**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
Aluminum Oxide, Non-Fibrous	1344-28-1	60-100	Not classified
Calcium Aluminate Cement	65997-16-2	5-10	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)
<b>Aluminum Oxide, Non-Fibrous (1344-28-1)</b>	1 mg/m <sup>3</sup> resp. dust	15 mg/m <sup>3</sup> total 5 mg/m <sup>3</sup> resp.
<b>Calcium Aluminate Cement (65997-16-2)</b>	3 mg/m <sup>3</sup> resp. 10 mg/m <sup>3</sup> inhalable	10 mg/m <sup>3</sup> total 5 mg/m <sup>3</sup> resp.
<b>Cristobalite (14464-46-1)</b>	0.025 mg/m <sup>3</sup> resp.	0.05 mg/m <sup>3</sup> resp.
<b>Silica, Amorphous (69012-64-2)</b>	Withdrawn	80 mg/m <sup>3</sup> SiO <sub>2</sub>

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:	2.5
Odor:	Earthy odor	Solubility:	Water: Slight
pH:	No data available	Partition Coefficient:	No data available
Melting Point:	>3000 °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:**

Aluminum Oxide: ORAL (LD50): >10,000 mg/kg (rat)

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)

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