

# **Kit #442 Modeling Stream Erosion and Deposition**



## 1. IDENTIFICATION

### 1.1 Product Identifiers

Product Name: Sand Mixture  
Alternative names: Majority Silicon dioxide, Quartz, Crystalline silica.  
Product Number: F80101, 442-B01E, 442-B02E, 442-B03E, EDCE-B002, IAES-P028xx, IAES-P030xx.

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

Identified uses: For laboratory and educational use only

### 1.3 Details of the supplier of the safety data sheet

Company: LAB-AIDS®, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA  
Telephone: +1 800 381 8003.  
Fax: +1 631 820 8268.

1.4 Emergency telephone number: Emergency number: CHEMTREC 1 800 424-9300

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### GHS classification

Carcinogenicity, Lungs (Category 1A), H350  
Specific Target Organ Toxicity, Repeated Exposure, Lungs (Category 1), H372



### 2.2 Label elements, including precautionary statements

Signal word: Danger  
Hazards statements: H350 - May cause cancer, H372 - Causes damage to organs, (lungs) through prolonged or repeated exposure.  
Precautionary statements: P264 - Wash exposed skin thoroughly after handling, P280 - Wear protective gloves, eye protection.

Pictogram:

2.3 Hazards not otherwise classified: May cause eye irritation.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Not applicable

### 3.2 Mixture

Chemical Name	Product identifier	%	GHS-US classification
Quartz ( Silicon dioxide)	CAS# 14808-60-7	95-99.9%	Carcinogenicity 1A, Lungs H350; STOT RE 1, H372

3.3 Chemicals where a trade secret is claimed: Any concentration shown as a range is to protect confidentiality, or is it due to batch variation.

## 4. FIRST AID MEASURE

### 4.1 Description of the first aid measure:

**INGESTION:** Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get medical attention if necessary.

**INHALATION:** Remove to fresh air. Get medical attention if necessary.

**EYE CONTACT:** Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medical attention if necessary.

**SKIN CONTACT:** Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if necessary.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media:

Suitable extinguishing media: Use TriClass, dry chemical extinguisher for surrounding fires.

5.2 Special hazard arising from the substance or mixture: Not applicable.

5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.

6.2 Emergency procedures: Restrict unprotected personnel from the area.

6.3 Methods and material used for containment and cleanup procedure: Recover for use if not contaminated. Sweep up or vacuum and place in a suitable container for a proper disposal. Wash spill area with soap and water.

## 7. HANDLING AND STORAGE

7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Avoid breathing dust. Use with an adequate ventilation. Wash hands thoroughly after handling.

7.2 Storage: Store in closed container in a dry area. Avoid moisture.

7.3 incompatibility: Refer to section 10.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control parameters:** ACGIH: TWA: 0.025 mg/m<sup>3</sup> (respirable dust)

**8.2 Exposure controls:** Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

**Respiratory protection:** Non should be needed if normal laboratory handling at room temperature.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Solid.

**Appearance:** Red-pink, tan , black crystals or granules.

**Odor:** No odor

**pH:** Neutral

**Vapor Pressure ( mm Hg):** Not available

**Vapor Density:** Not available

**Evaporation Rate:** Not available

**Viscosity:** N/A

**Flash point:** N/A

**Autoignition:** N/A

**Boiling point:** 2230°C (4046°F)

**Melting point:** 1710°C (3110°F)

**Freezing point:** Not available

**Decomposition temp:** Not available

**Solubility:** Not available

**Specific gravity (H<sub>2</sub>O = 1):** ≈ 2.65g/cc

**Percent volatile (%):** N/A

**Molecular formula:** SiO<sub>2</sub>

**Molecular weight:** 60.09

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable

**Conditions to Avoid:** Incompatible materials.

**Incompatibilities:** Contact with powerful oxidizing agents such as fluorine, chlorine trifluoride and oxygen difluoride may cause fires.

**Hazardous decomposition:** Silica will dissolve in hydrofluoric acid and produce the corrosive gas silicon tetrafluoride.

**Hazardous polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute effects:** Eyes: May cause eye irritation. Skin: Not expected to cause irritation. Inhalation: Prolonged inhalation of the dust may cause coughing, sneezing and shortness of breath. Pre existing respiratory conditions may be affected by dust. Ingestion: Not expected to cause acute reaction.

Crystalline silica is a basic component of soil, sand, granite, and many other minerals. Quartz is the most common form of crystalline silica. Cristobalite and tridymite are two other forms of crystalline silica. All three forms may become respirable size particles when workers chip, cut, drill, or grind objects that contain crystalline silica. Crystalline silica is a cancer suspect in humans from occupational sources and in manufacturing environments under prolonged exposure.

### Toxicological data

Acute oral toxicity ORAL LD<sub>50</sub>: Not available

Acute vapor toxicity IHL-LC<sub>50</sub>: Not available

DERMAL LD<sub>50</sub>: Not available

**Carcinogenicity:** California prop 65: Silica, crystalline (airborne particles of respirable size).

## 12. ECOLOGICAL INFORMATION

Not available.

## 13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

## 14. TRANSPORT INFORMATION

**UN number:** N/A

**Shipping name:** N/A

**Hazard Class:** N/A

**Packing group:** N/A

**Exceptions:** Ltd Qty. N/A

## 15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (238-878-4).

## 16. OTHER INFORMATION

### Disclaimer:

The Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. LAB-AIDS® makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration , investigation and verification. The data should not be confused with local, state, federal regulations, or insurance mandates, and CONSTITUTE NO WARRANTY. Any use of these data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling , storage, use and disposal of the product(s) described are beyond LAB-AIDS, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).