

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Name:** Calcium Copper Titanate

**CAS #:** 12336-91-3

**Relevant identified uses of the substance:** Scientific research and development

**Supplier details:**

Stanford Advanced Materials

E-mail: [sales@samaterials.com](mailto:sales@samaterials.com)

Tel: (949) 407-8904

Address: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A.

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## SECTION 2. HAZARDS IDENTIFICATION

Signal Word: None

Hazard Statements: None

Precautionary Statements: None

HMIS

Health Ratings (0-4):

Health: 1

Flammability: 0

Physical: 0

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family: Ceramic

Additional Names: Calcium copper titanium oxide

Calcium copper titanate (CaCu<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub>):

Percentage: 100 wt%

CAS#: NIL

EC #: NIL

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## **SECTION 4. FIRST AID MEASURES**

General Treatment: Seek medical attention if symptoms persist.

Special Treatment: None

Important Symptoms: None

Inhalation: Remove victim to fresh air. Supply oxygen if breathing is difficult.

Ingestion: Seek Medical Attention:

Skin: Wash affected area with mild soap and water. Remove any contaminated clothing.

Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

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## **SECTION 5. FIREFIGHTING MEASURES**

Flammability: Non-flammable

Extinguishing Media:

No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.

Spec. Fire Fighting Procedure: Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

If Material Is Released/Spilled:

Wear appropriate respiratory and protective equipment specified in special protection information.

Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.

Environmental Precautions: Isolate runoff to prevent environmental pollution.

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## **SECTION 7. HANDLING AND STORAGE**

Handling Conditions: Wash thoroughly after handling.

Storage Conditions:

Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.

Work/Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating

and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation:

Provide sufficient ventilation to maintain concentration at or below threshold limit.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Permissible Exposure Limits: 0.1mg/m<sup>3</sup> as Cu, long-term value

Threshold Limit Value: 0.2mg/m<sup>3</sup> as Cu, long-term value

Special Equipment: None

Respiratory Protection: Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if purifying respirators are

appropriate. Only use equipment tested and approved under appropriate government standards. Protective Gloves: Rubber gloves

Eye Protection: Safety glasses or goggles

Body Protection: Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Color: Brown

Form: Powder, Granules, Pellets,, Custom parts

Odor: Odorless

Water Solubility: Insoluble

Boiling Point: N/A

Melting Point: N/A

Flash Point: N/A

Auto-ignition Temperature: N/A

Density: N/A

Molecular weight: 614.18g/mol

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## SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions

Reacts With: Oxidizing agents

Incompatible Conditions: None

Hazardous Decomposition Products: Copper oxides, Calcium oxide

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## SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: May cause irritation

Skin: May cause irritation

Ingestion: May cause irritation

Inhalation: May cause irritation

Chronic: N/A

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: >5000mg/kg for rat by mouth

Carcinogen: EPA-D: Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no data are available.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Aquatic Toxicity: Low

Persistent Bioaccumulation Toxicity: No

Very Persistent, Very Bioaccumulative: No

Notes: N/A

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local, state, national, and international regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

Hazardous: Not hazardous for transportation.

Hazard Class: N/A

Packing Group: N/A

UN Number: N/A

Proper Shipping Name: N/A

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## **SECTION 15. REGULATORY INFORMATION**

Sec 302 Extremely Hazardous: No

Sec 304 Reportable Quantities: N/A

Sec 313 Toxic Chemicals: Yes

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## **SECTION 16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.