

SAFETY DATA SHEET

Version 4.1
Revision Date: 11-5-15

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: OSU-6 Mesoporous silica MCM-41 type
Brand: OSU-6
General Use : Adsorbent, catalyst support, nanoscale template

Manufacturer: XploSafe, LLC
3514 N Park Drive
Stillwater, Oklahoma 74075
Office: 405-334-5720
support@xplosafe.com

SECTION 2 — HAZARDS IDENTIFICATION



Pictogram

Signal word Danger

Inhalation: May be irritating to mucous membrane.
Eye Contact: May cause eye irritation.
Skin Exposure: May cause skin irritation.
Ingestion: Harmful if swallowed.
Potential Chronic Effects: Contains a component that is not classifiable to carcinogenicity based on IARC, ACGIH, NTP or EPA classification.
Carcinogenic Effects: No known effects.
Mutagenic Effects: No known effects.
Teratogenic Effects: No known effects.

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

Composition	Content (wt.%)	CAS Number
Silicon Oxide	100%	7631-86-9

SECTION 4 — FIRST AID MEASURES

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. If irritation persists, seek medical attention.

Inhalation:

Allow the victim to rest in a well-ventilated area; if possible transfer him or her to fresh air. If breathing becomes difficult, seek immediate medical attention.

Ingestion:

Do not induce vomiting. Wash mouth with water provided the person is conscious. Seek immediate medical attention.

SECTION 5 — FIRE FIGHTING MEASURES

Flammability of the Product: Non-Applicable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances: Not available

Explosion Hazards in Presence of Mechanical Impact: Not applicable.

Explosion Hazards in Presence of Static Discharge: Not available.

Fire Fighting: Protective Equipment; Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes; Emits toxin fumes under fire.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

Spill and clean up: Sweep up the spilled material and place in bag and hold for waste disposal. Avoid raising the dust. Ventilate area and wash spill site after the material is picked up. Use necessary precautions to minimize contact with skin and eyes and prevent inhalation of the dust. When cleaning spills, use appropriate protective equipment.

SECTION 7 — HANDLING AND STORAGE

Handling: Wear protective gloves when handling the product. Avoid contact with skin, eyes and clothing. Avoid direct inhalation. Avoid prolonged or repeated exposure

Storage: Store in a cool, dry, ventilated area away from sources of heat, moisture and open flame. Keep the product tightly closed.

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls: Eye-washing machines and safety showers are recommended. Mechanical exhaust required.

Hygiene measures: Avoid contact with material. Wash hands thoroughly after handling. Do not reuse clothing if contaminated until thoroughly decontaminated.

Respiratory protection: Use respirators and components tested and approved under NIOSH (US) and CEN (EU). Respiratory protection not required. Where protection from nuisance levels of dust are needed, use type N95 (US) or type P1 (EN 143) dust masks

Eye protection: Wear chemical safety goggles or protective eyeglasses to avoid possible eye contact.

Hand protection: Wear chemically protective gloves during training session.

Exposure Limits, RTECS: TWA: 10 mg/m³ from ACGIH (TLV). TWA: 6 mg/m³ from OSHA (PEL). Consult local authorities for acceptable exposure limits.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: White powder.

Odor: Not available.

Taste: Not available.

Molecular Weight: 60.08 AMU.

pH: Not applicable.

Boiling Point: Not available.

Melting Point: 1610°C (2930°F).

Critical Temperature: Not available.

Vapor Density: Not available.

Odor Threshold: Not determined.

Solubility: Insoluble in cold water, hot water. Very slightly soluble in alkali. Soluble in hot KOH and NaOH solutions. Insoluble in ethanol. Insoluble in acids except hydrofluoric acid.

SECTION 10 — STABILITY AND REACTIVITY

Stability: The product is stable.

Instability Temperature: Not available.

Incompatibility with various substances: Strong oxidizing agents, HF, Strong bases.

Decomposition Products: Silicon oxide, Silicon dioxide.

Polymerization: Hazardous polymerization cannot occur.

SECTION 11 — TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 3,160 mg/kg

Inhalation: No data available

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Rat

Unscheduled DNA synthesis

Carcinogenicity

Carcinogenicity - Rat - Inhalation

Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors.

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Silicon dioxide)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

SECTION 12 — ECOLOGICAL INFORMATION

Eco toxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Not available.

Toxicity of the Products of Biodegradation: Not available.

Special Remarks on the Products of Biodegradation: Not available.

SECTION 13 — DISPOSAL CONSIDERATIONS

This product should be managed with an appropriate and approved waste disposal facility/service. Dissolve or mix the powder with combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. State and local disposal regulations may differ from federal disposal regulations. Dispose of the product in accordance with federal, state and local requirements.

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

SECTION 14 — TRANSPORT INFORMATION

NFPA Ratings: Health 1, Flammability 0, Reactivity 0

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

SECTION 15 — REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Chronic Health Hazard

Massachusetts Right To Know Components

Silicon dioxide

CAS-No.

Revision Date

7631-86-9

1993-04-24

Pennsylvania Right To Know Components

Silicon dioxide

CAS-No.

7631-86-9

Revision Date

1993-04-24

New Jersey Right To Know Components

Silicon dioxide

CAS-No.

7631-86-9

Revision Date

1993-04-24

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16 — OTHER INFORMATION

Precautions: Do not use if the plastic bag/container is broken. Avoid contact with skin and eyes. Do not intentionally breathe the vapors.

Disclaimer: For R&D purposes only. Do not use as a drug, household or other item.

Warranty: The above information is believed to be correct, but does not purport to be all-inclusive and shall only be used as a guide. XploSafe shall not be held liable for any damage resulting from handling or from contact with the above product.