

# Material Safety Data Sheet

acc. to OSHA and ANSI

## 1 Identification of substance:

- **Product details:**
- **Trade name:** Silicon oxide
- **Stock number:** 4850MR
- **Manufacturer/Supplier:**  
Nanostructured & Amorphous Materials, Inc.  
820 Kristi Lane  
Los Alamos, NM 87544  
Emergency Tel: (505) 661-8671

## 2 Composition/Data on components:

- **Chemical characterization:**  
Description: (CAS#)  
Silicon oxide (CAS# 7631-86-9), 99.5%
- **Identification number(s):**
- **EINECS Number:** 231-545-4

## 3 Hazards identification

- **Hazard description:** Xn Harmful
- **Information pertaining to particular dangers for man and environment**  
R 20 Harmful by inhalation.  
R 37 Irritating to respiratory system.

## 6 Accidental release measures

- **Person-related safety precautions:**  
Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- **Measures for environmental protection:**  
Do not allow material to be released to the environment without proper governmental permits.
- **Measures for cleaning/collecting:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Additional information:**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Other information (about experimental toxicology):**  
**Tumorigenic effects have been observed on tests with laboratory animals.**  
**Reproductive effects have been observed on tests with laboratory animals.**  
**Carcinogenic effects have been observed on tests with laboratory animals.**
- **Subacute to chronic toxicity:**  
**Prolonged inhalation of silica may cause silicosis, the formation of adhesions in the lungs progressing to the formation of a continuous mass of fibrous tissue. If the disease continues, death may occur. Tuberculosis is often found in people with silicosis. Some forms of silica are more fibrogenic than others. Some forms of crystalline silica have shown carcinogenic, tumorigenic and**

neoplastic effects in laboratory animals. Amorphous silica is less harmful by inhalation than crystalline forms. Amorphous silica may, however, contain small amounts of crystalline silica.

- **Additional toxicological information:**

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.

IARC-1: Carcinogenic to humans: sufficient evidence of carcinogenicity.

NTP-2: Reasonably anticipated to be a carcinogen: limited evidence from studies in humans or sufficient evidence from studies in experimental animals.

**12 Ecological information:**

- **General notes:**

Do not allow material to be released to the environment without proper governmental permits.

**16 Other information:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.