

MATERIAL SAFETY DATA SHEET

Zinc & Aluminum Oxide Powder

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Zinc & aluminum oxide powder

Manufacturer/Supplier:

Nanostructured & Amorphous Materials, Inc.
16840 Clay Road, Suite #113
Houston, TX 77084, USA

MSDS Date: July 16, 2013

SECTION 2 INFORMATION ON INGREDIENTS

Product name: : Zinc & aluminum oxide powder

Ingredient	Concentration	CAS No.
Zinc oxide	98%	1314-13-2
Aluminum oxide	2%	1344-28-1

SECTION 3 HAZARDS IDENTIFICATION

Hazards Identification: This substance is considered to be non-hazardous for transport.

Emergency Overview: May causes irritation to eye, skin and respiratory system.

SECTION 4 FIRST-AID MEASURES

Skin Exposure: In case of contact, immediately wash skin with soap and copious amounts of water. If irritation persists call a physician.

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, give oxygen.

Oral Exposure: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media:

Suitable: Water spray, Dry chemical powder, Carbon dioxide or appropriate foam.

Firefighting:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazards: Emit toxic fumes under fire conditions.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Procedures of Personal Precautions:

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation.

Methods for cleaning up:

Sweep up with spade and transfer to a dry, clean, lidded container for disposal. Avoid inhalation.

Sweep, ventilate, watering the area and assure the material pickup is complete.

SECTION 7 HANDLING AND STORAGE

Handling:

Wear appropriate protective clothing and chemical safety gloves. Avoid inhalation. Avoid contact with eyes, skin. Mechanical exhaust required. Keep away from ignition sources, heat and flame. Incompatibilities: strong acids, strong bases, strong oxidizing agents and foods. No smoking at working site.

Storage:

Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Store in a tightly closed container. Incompatibilities: strong acids, strong bases, strong oxidizing agents and foods.

SECTION 8 EXPOSURE CONTROL/PPE

Engineering Controls: Mechanical exhaust required. Safety shower and eye bath.

Personal Protective Equipment:

Respiratory: Government approved respirator.

Eye: Wear chemical safety goggles.

Clothing: Wear appropriate protective clothing.

Hand: Wear compatible protective gloves.

Other protects: No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

Appearance and odor: White powder, no odor

Flashing point: > 100°C

Solubility: Miscible in water

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable under normal temperature and pressures.

Materials to Avoid: Strong acids, strong bases, strong oxidizing agents.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, zinc oxide, aluminum oxide.

SECTION 11 TOXICOLOGICAL INFORMATION

Toxicity Data:

Oral	Rat	LD50	8570µl/kg.
Skin	Rabbit	LD50	13300µl/kg.

Irritation Data: May causes irritation to eye, skin and respiratory system.

SECTION 12 ECOLOGICAL INFORMATION

No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Appropriate Method of Disposal:

Waste performance: do not belong to National Hazardous Waste List

Disposal method: Consult local Environmental Authorities, suggest to contact a licensed professional waste disposal service to dispose of this material.

SECTION 14 TRANSPORT INFORMATION

DOT

Non-hazardous for transport: This substance is considered to be non-hazardous for transport.

ADR/RID Class: None

Non-Hazardous for transport: This substance is considered to be non-hazardous for transport.

LATA

Non-Hazardous for Air transport: Non-hazardous for air transport.

IMO

Non-Hazardous for Sea-Transport: Non-hazardous for sea transport.

UN Number: None

SECTION 15 REGULATORY INFORMATION**EU Classification and Labeling Information:**

This material is not classified in the Annex I of Directive 67/58/EEC.

SECTION 16 OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purpose. In no way shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising from using the above information.