

MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Manufacturer/Distributor : Kobo Products, Inc.
Address : 3474 South Clinton Avenue,
South Plainfield, NJ 07080, USA
Emergency Telephone # : (908) 757-0033
Facsimile Number : (908) 757-0905
Trade Name : **ZnO FSF-11S4**
Chemical Name/ Synonyms : Zinc Oxide (And) Triethoxycaprylylsilane

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

| <u>Chemical Name</u> | <u>CAS #</u> | <u>EINECS #</u> |
|-------------------------|--------------|-----------------|
| Zinc Oxide | 1314-13-2 | 215-222-5 |
| Triethoxycaprylylsilane | 2943-75-1 | 220-941-2 |

SECTION 3: HAZARD IDENTIFICATION

No particular danger

SECTION 4: FIRST AID MEASURES

Effects and Symptoms:

Medical Conditions Aggravated by Exposure : Persons with respiratory or skin conditions may be at increased risk.
Primary Route(s) of Entry : Inhalation or skin and eye contact.

Emergency First Aid:

Eye Contact : Flush eyes with water for at least 15 min. See physician if irritation persists.
Skin Contact : Flush skin with soap and water for at least 15 min.
Inhalation : Remove to fresh air. If breathing is difficult give oxygen. See physician.
Ingestion : None needed for small amounts. For large amounts, if conscious, give milk to drink, induce vomiting, and call physician.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point (Closed Cup) : N/A
Flammable Limits LEL/UEL % : N/A
Extinguishing Media : Water, Dry Chemical, Foam, CO₂
Special Fire Fighting Procedures : Self-contained breathing apparatus and protective clothing.
Unusual Fire And Explosion Hazards : May burn or explode upon ignition if suspended in air as a dust.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions : Avoid skin and eye contact
Environmental Precautions : Prevent material from contaminating soil or entering sewerage and drainage systems.
Spill response : Use appropriate NIOHS/MSHA approved respirator. Wear chemical gloves, goggles, and lab coat. Carefully contain spilled material. Deposit spilled material in appropriate waste container. Wash spill area with soap and water.

SECTION 7: HANDLING AND STORAGE

Handling : Use with adequate ventilation. Avoid contact with eyes. Wash thoroughly after handling and before mealtimes. Follow all MSDS and label precautions even after container is emptied since it may contain residual material.
Storage : Store containers closed in ambient location.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

| <u>Exposure Levels:</u> | | <u>OSHA's PEL</u> | <u>ACGIH's TLV</u> |
|-------------------------|-----------------|----------------------|---------------------|
| ZnO | Nuisance Dust | 15 mg/m ³ | 10mg/m ³ |
| | Respirable Dust | 5 mg/m ³ | 5 mg/m ³ |

Personal Protection:

- Eye Protection : Safety glasses with side shields or goggles
- Skin Protection : Rubber gloves, wash at meals and end of shifts
- Respiratory Protection : Use NIOSH/MSHA approved air purifying respirator as needed to control exposure.
- Ventilation : Provide adequate general mechanical exhaust.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|---|-------------------------------------|
| Boiling Point (°C) : N/A | Percent Volatile By Vol. (%) : None |
| Freezing Point (°C) : N/A | Vapor Density (Air=1) : N/A |
| Melting Point (°C) : > 1000°C | Evaporation Rate (Buac=1) : N/A |
| Vapor Pressure (mm hg) : N/A | Solubility In Water : Insoluble |
| Appearance & Odor : White powder. Characteristic odor | |

SECTION 10: STABILITY AND REACTIVITY

- Stable : Yes
- Hazardous Polymerization : Will not occur
- Conditions To Avoid : Fire or excess heat
- Incompatibility : Acids, alkalis and strong oxidizers
- Hazardous Decomposition Products : None.

SECTION 11: TOXICOLOGICAL INFORMATION

Zinc Oxide

- Skin Irritation : None when 0.5 mL/patch of 50 % water dispersion
- Primary Eye Irritation : Slight stimulus, Draize Score= 6.67
- Acute Oral Toxicity : Non-toxic, LD₅₀ > 2 g/kg (rat)
- Acute Skin Toxicity : Non-toxic, LD₅₀ > 2 g/kg (rat)
- Mutagenicity : Negative (Ames test)

SECTION 12: ECOLOGICAL INFORMATION

No known effect on environment is expected under normal use.

SECTION 13: DISPOSAL CONSIDERATIONS

Method of Disposal : Dispose of in accordance with all applicable federal, state, and local regulations. Material may be sent to an approved landfill or licensed treatment, storage, and disposal facility.

SECTION 14: TRANSPORT INFORMATION

Not regulated as hazardous material. No special precautions are required.

SECTION 15: REGULATORY INFORMATION

No information available

SECTION 16: OTHER INFORMATION

- Date Prepared : May 1, 2002
- Date Revised : December 16, 2010

Note:

The statements made here are intended to describe the product with regard to necessary safety precautions. They do not guarantee special characteristics. This information is furnished without warranty, expressed or implied, except that it is accurate to the best of our current knowledge.