

ZINC OXIDE MICRONIZED

1. IDENTIFICATION

Product Name: Zinc Oxide, Micronized & Coated
INCI Name: Zinc oxide, Triethoxycaprylylsilane
CAS#: 1314-13-2, 2943-75-1
Product Form: Microfine powder
Product Use: Cosmetic use
Distributor: Avena Lab, Farmadria d.o.o.
Address: Heroja Pinkija 44, Vršac
Telephone: +381(0)695565028 or +381(0)695565029
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2. HAZARD(S) IDENTIFICATION

GHS Signal Word:
GHS Hazard Pictograms:

WARNING



HHS Hazard Statements:
GHS Precautionary Statements:
Potential Health Hazards:

H410: Very toxic to aquatic life with long lasting effects
P501: Dispose in accordance with local disposal regulations
Eyes: Can cause irritation, tearing and mild temporary pain.
Inhalation: Dust is non-toxic if inhaled, except of a few reported cases of metal fume fever. Some workers develop a tolerance after repeated daily exposure to zinc oxide fume. This tolerance is lost after short periods away from work.
Skin: May cause skin irritation
Ingestion: May cause vomiting, nausea, thirst, diarrhea and abdominal pain.
Health 2 Moderate
Flammability 1 Slight
Reactivity 0 Minimal
Use no water

NFPA Ratings (704):

Specific Hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight %	Molecular Weight
Zinc Oxide	1314-13-2	96% - 99%	81.38 g/mol
Triethoxycaprylylsilane	2943-75-1	1% - 4%	276.49 g/mol

4. FIRST-AID MEASURES

Eyes:	In case of eye contact, rinse with plenty of water and seek medical attention if necessary
Inhalation:	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
Skin:	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary
Ingestion:	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Water spray, fog, CO ₂ , dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media:	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards arising from the chemical:	Fire may produce irritating, corrosive and/or toxic gases.
Special protective equipment and precautions for firefighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.
Fire fighting instructions:	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.
Specific methods:	Use water spray to cool unopened containers.
General fire hazards:	Static charges generated by emptying package in or near flammable vapor may cause flash fire.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions,
protective equipment and
emergency procedures:
(Methods and materials
for containment and
cleaning up)**

Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Collect and dispose of spillage as indicated in section 13 of the SDS. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent product from entering drains. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions:

Retain and dispose of contaminated wash water. Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so.

7. HANDLING AND STORAGE

Precautions for safe handling:

Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.

**Conditions for safe storage,
including any incompatibilities:**

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits:

This substance has no PEL, TLV, or other recommended exposure limit.

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls:

Use explosion-proof ventilation equipment to stay below exposure limits. Adequate ventilation should be provided so that exposure limits are not exceeded.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection: Chemical resistant gloves.
Other: Wear suitable protective clothing.

Respiratory protection: Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, Physical State:	Powdered solid
Odor:	Odorless
Color:	White
Medium Particle Size:	86 nm
Molecular Weight:	81.38 g/mol
Specific Surface Area (BET):	30-70 m²/g
Boiling Point:	1975°C (3587°F)
Melting Point:	1975°C (3587°F)
pH Value:	Not available
Vapor Density:	Not applicable
Evaporation Rate:	Not applicable
Flash Point:	Not flammable
Specific Gravity:	5.606 g/cm³ (water = 1)
Solubility:	Insoluble in water (0.00016 g/100 ml cold water) soluble in acids and bases

10. STABILITY AND REACTIVITY

Reactivity:	Product is stable
Chemical Stability:	Product is stable
Possibility of Hazardous Reactions:	Will not occur
Conditions to Avoid:	Not available
Hazardous Decomposition Products:	None
Incompatible Materials:	Zinc oxide and chlorinated rubber react violently at 215°C. Contact with magnesium and linseed oil can cause violent reaction. Contact with strong acids may cause vigorous reaction. Contact with strong bases will form water and soluble zincates. Contact between zinc oxide and hydrogen fluoride, aluminum and hexa chloroethane, zinc chloride or phosphoric acid, and water should be avoided.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity (LD50):	240 mg/kg (intraperitoneal, rat), >8.4g/kg (oral, rat)
Carcinogenicity:	Not classified as carcinogenic material
Teratogenicity:	Zinc oxide at 2 to 38 mg/day had no effect on reproduction
Mutagenicity:	Zinc components have not been active in genetics assays
Embryotoxicity:	Not available
Specific Target Organ Toxicity:	Not available
Reproductive Toxicity:	Not available
Repeated Dose Toxicity:	No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity:	It is very toxic to aquatic organisms. Since it takes a very long time for zinc oxide to break down, it may cause adverse long-term effects in the aquatic environment.
Persistence and Degradability:	Not available
Bioaccumulative Potential:	Not available
Mobility in Soil:	Not available
PBT and vPvB Assessment:	Not available

13. DISPOSAL CONSIDERATIONS

Disposal instructions:	Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations:	Dispose in accordance with all applicable regulations.
Hazardous waste code:	Not established.
Waste from residues / unused products:	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

Transport	Transport	Hazard class	Packing group	UN number
Land	RID/ADR	Not Regulated	Not Regulated	Not Regulated
Maritime	IMDG			
Air	IATA/DGR			

15. REGULATORY INFORMATION

TSCA Inventory Status:

DSCL (EEC):

SARA 311/312:

SARA 313:

U.S. EPA: Reg. No. 71645-3, PC Code:

U.S. TRI:

All ingredients are listed on the TSCA inventory

EC # 215-222-5

Listed (acute)

Compounds: Zn, Pb

088502

Reproductive Toxin – Yes, Development Toxin - Yes

16. OTHER INFORMATION

Disclaimer:

Avena Lab, Farmadria d.o.o. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, and disposal and should not be considered as a guarantee or quality specification. It is the sole responsibility of the individual(s) purchasing this product to assess its' safety in the final application. The above information is based on data provided by and collected from recognized sources such as distributors, manufacturers, and technical groups and is considered to be accurate to the best of our knowledge. Appropriate warnings and safe handling procedures should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors relating to such use in accordance with all applicable laws and regulations.