

Section 1: Identification

Product name(s):

- OdorKlenz-Air® Cartridge

Manufacturer:

Timilon Technology Acquisitions LLC
 5150 N. Tamiami Trail, Suite 601
 Naples, FL 34103
 (239) 331-5711

Product Information:

(239) 331-5711

24-Hour Chemtrec Emergency Number:

U.S. (800) 424-9300

International (703) 527-3887

Section 2: Hazard(s) Identification

Hazard Classification(s):

- Acute Oral: GHS Category 5
- Acute Dermal: GHS Category 5
- Acute Eye Irritation: GHS Category 2A
- Carcinogen: GHS Category 2



Signal Word:

WARNING

Hazard Statement:

May be harmful if swallowed, causes serious eye irritation, suspected of causing cancer.

Precautionary Statement:

Prevention	Response
	Call a poison center/doctor/physician if you feel unwell.
Wear eye/face protection as specified by manufacturer/supplier or competent authority.	If in the eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention. Wash hands after handling.

Any Hazards not Otherwise Classified: None.

Section 3: Composition/Information on Ingredients

Chemical Name (Common Name/Synonyms):	CAS Number:
Titanium Dioxide	13463-67-7
Magnesium Oxide	1309-48-4
Zinc Oxide	1314-13-2

Mixture:

The exact percentage of composition is being withheld as a trade secret.

Section 4: First-Aid Measures

Skin: Flush with copious amounts of water for at least 15 minutes, remove contaminated clothing and shoes. If irritation continues after flushing, seek medical attention.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. DO NOT use mouth-to-mouth respiration.

Eyes: Flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingertips. Seek medical attention.

Ingestion: If conscious and alert, rinse mouth and drink 2-4 cupfuls of water or milk. Seek medical attention. Do NOT induce vomiting.

Important Symptoms (acute or delayed) or Effects:

Slight to moderate eye irritation. May cause skin irritation. May cause irritation of mucus membranes and the upper respiratory tract causing coughing and sneezing.

Prolonged and repeated exposure to skin may cause irritation or dermatitis.

Section 5: Fire-Fighting Measures

This product is not flammable, combustible, or explosive. May emit toxic fumes at temperatures greater than 2800°C. The formulation may be exposed to water, carbon dioxide, dry chemical, and foam-extinguishing agents as necessary during fire-fighting operations. Full protective gear and a NIOSH approved self-contained breathing apparatus (SCBA) should be used to protect eyes, skin, and lungs from exposure during firefighting operations around zinc oxide. During a fire, irritating and highly toxic gases, such as zinc oxide fume, may be generated by thermal decomposition or combustion.

Section 6: Accidental Release Measures

Personal Precautions: Avoid generating dusty conditions and provide adequate ventilation.

Emergency Procedures: Clean up spills immediately, using appropriate protective equipment.

Cleanup Procedures: Vacuum, sweep up, or absorb material and place into a suitable disposal container.

Section 7: Handling and Storage

Precautions for safe handling:

Use dust control and protection in handling and storage.

Recommendations for safe storage:

Store in a closed container in a cool, dry place to avoid slow reactions with carbon dioxide and moisture in air. Avoid storage near magnesium, rubber, and strong oxidizers.

Incompatibilities:

Lithium at 200°C, chlorinated rubber, linseed oil, magnesium, aluminum + hexchloroethane, zinc chloride or strong oxidizing agents; react violently with phosphorus pentachloride, chlorine trichloride, or bromine pentafluoride.

Section 8: Exposure Controls/Personal Protection

Material:	OSHA PEL:	ACGIH TLV:
Titanium Dioxide	15 mg/m ³	10 mg/m ³
Magnesium Oxide	15 mg/m ³	10 mg/m ³
Zinc Oxide	15 mg/m ³	10 mg/m ³

Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Respiratory Protection: Use NIOSH approved respirators when necessary

Skin Protection: Wear suitable protective gloves and clothing.

Eye Protection: Wear appropriate protective glasses or chemical safety goggles.

Other Protective Equipment: None.

Section 9: Physical and Chemical Properties

Color/Appearance: White powder or granule
Odor: Odorless
Odor Threshold: no data available
Boiling Point: no data available
Melting Point: no data available
Flash Point: no data available
Evaporation Rate: no data available
Upper/Lower Flammability: no data available
Flammability: Not flammable.
Vapor Pressure: no data available
Vapor Density: no data available
Relative Density: no data available
Solubility in water: no data available
pH: no data available
Partition coefficient: no data available
Auto-ignition Temperature: no data available
Decomposition Temperature: no data available
Viscosity: no data available

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal temperature and pressure.

Other:

- Hazardous Polymerization: None.
- Incompatibility: Lithium at 200°C, chlorinated rubber, linseed oil, magnesium, aluminum + hexchloroethane, zinc chloride or strong oxidizing agents, react violently with phosphorus pentachloride, chlorine trichloride, or bromine pentafluoride.
- Decomposition Products: Toxic gases such as metal fumes may be released in a fire.

Section 11: Toxicological Information

Likely Routes of Exposure: Eye and skin contact, inhalation, ingestion.

Effects:

- Acute Health Hazards: May cause irritation of the skin and eyes. Inhalation of dust may cause irritation of mucus membranes and the upper respiratory tract causing coughing and sneezing.
- Chronic Health Hazards: Prolonged and repeated exposure to skin may cause irritation or dermatitis.

Measures of Toxicity:

MgO

- Acute Oral: LD₅₀ > 5 g/kg
- Acute Dermal Irritation: EPA Category IV, non-irritating
- Acute Eye Irritation: EPA Toxicity Category III, slightly irritating
- Skin Sensitizer: Non-sensitizer
- Acute Inhalation: EPA Category IV, non-toxic

ZnO

- Acute Oral: LD₅₀ > 2 g/kg
- Acute Dermal: LD₅₀ > 5 g/kg
- Acute Dermal Irritation: PII = 0, non-irritating
- Acute Eye Irritation: Moderately irritating
- Skin Sensitizer: Non-sensitizer

TiO₂

- Acute Oral: LD₅₀ > 2 g/kg
- Acute Dermal: LD₅₀ > 5 g/kg
- Acute Dermal Irritation: PII = 0, non-irritating
- Acute Eye Irritation: Practically non-irritating
- Skin Sensitizer: Non-sensitizer
- Acute Inhalation: EPA Toxicity Category IV, non-toxic

Section 11: Toxicological Information (continued)

Chronic TiO₂ *dust* inhalation exposure (250 mg/m³ for 6 hours/day, 5 days/week for 2 years) can be a potential carcinogen to rats. The authors of this study concluded that based on the excessive dust loading and overwhelmed clearance mechanism in the lungs of rats exposed chronically at 250 mg/m³, the biological relevance of lung tumors to man appears to be negligible.

A number of epidemiology studies evaluating > 20,000 TiO₂ industry workers in Europe and the United States have been reported. Worker employed for at least six months in TiO₂ production were assessed using company records and quality controls, taking into account the different manufacturing procedures used at these sites as well as the actual relative levels of exposure to respirable TiO₂. Exposure categories such as job site, title, and calendar years on the job were examined. Findings from each of the studies were similar, in that the authors concluded that the results did not suggest a carcinogenic effect of TiO₂ dust on the human lung, and mortality from other chronic diseases, including other respiratory diseases, was associated with exposure to TiO₂ dust. Based upon the results of the studies, NanoScale Corporation concludes that titanium dioxide will not cause lung cancer or chronic respiratory disease in humans at concentrations experienced in the workplace.

Symptoms:

- Eye Contact: May cause slight to moderate eye irritation.
- Skin Contact: May cause irritation.
- Inhalation: May cause upper respiratory tract irritation.
- Ingestion: May cause gastrointestinal irritation with nausea, vomiting, and diarrhea.

Carcinogen Status:

- **OSHA**: No
- **NTP**: No
- **ACGIH** (TiO₂): Group 3; Not classifiable as human carcinogen
- **IARC** (TiO₂): 2B; Possibly carcinogenic to humans

Although the three animal studies reviewed by IARC showed evidence of tumors, it is important to note that these studies tested pigmentary and ultrafine titanium dioxide. As stated in IARC *draft* monograph, volume 93, primary particle sizes for pigmentary titanium dioxide are typically between 0.2 and 0.3 µm. Ultrafine grades range from 10-50 nm. NanoScale's NanoActive® Titanium Dioxide particles are larger and do not fall into the pigmentary or ultrafine classifications. Also, as realized in studies reviewed by NIOSH, the toxicity seems to be more related to the particle size rather than the chemical itself.

Section 12: Ecological Information

None available.

Section 13: Disposal Considerations

Disposal should be in accordance with applicable local, state, and federal regulations.

Section 14: Transport Information

(49 CFR 172.101-2): Not listed.

Section 15: Regulatory Information

TSCA: All components are listed in the TSCA inventory.

SARA (Title 313): No reporting requirements

CERCLA RQ: None.

Section 16: Other Information

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200(g).

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