

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Aluminum Titanate

Chemical Formula: Al_2TiO_5

Manufacturer Item Number: AL-0150

Manufacturer: Lorad Chemical Corporation
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2. HAZARD IDENTIFICATION

Signal Word: Warning

Pictograms:



Hazard Statements: H335 May cause respiratory irritation.

Precautionary Statements: Prevention

P261 Avoid breathing dust / fumes / gas / mist / vapor / spray.

Response

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or physician if you feel unwell.

Storage

P403+233 Store in well ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal

P501 Dispose of contents / container in accordance with local / regional / national / international regulations.

Other Hazards**HMIS Ratings (0-4)**

- Health: 1
- Flammability: 0
- Physical: 0

3. COMPOSITION**Additional Names:** Aluminum Titanium Oxide, Dialuminum Titanium Pentaoxide

Percentage:	Component	Classification	Concentration
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	Aluminum Titanate	STOT-SE Cat. 3; H335	<= 100%
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CAS #: 12004-39-6**EC #:** 234-456-9**4. FIRST AID PROCEDURES****General Treatment** Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.**Special Treatment:** No Data Available.**Important Symptoms:** No Data Available.**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.**Skin:** Wash off with soap and plenty of water.**Eyes:** Flush eyes with water as a precaution.**5. FIREFIGHTING MEASURES****Special Hazards from Substance:** Titanium / Titanium Oxides, Aluminum Oxides**Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus for firefighting if necessary.**6. ACCIDENTAL RELEASE MEASURES****If Material is Released / Spilled:** Wear appropriate personal protective equipment. Avoid dust formation. Avoid breathing dust, vapor, mist, or gas. Isolate spill area and provide ventilation. Evacuate personnel to safe areas. Pick up and arrange for disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal.**Environmental Precautions:** Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses.**7. HANDLING AND STORAGE****Handling Conditions:** Wear all appropriate personal protective equipment. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.**Storage Conditions:** Store in a dry and well-ventilated place.**Work / Hygienic Maintenance:** Do not get in eyes or on skin or clothing. Do not breath dust. Do not smoke. Wash any contaminated clothing before reuse.**Ventilation:** Provide appropriate exhaust ventilation at places where dust is formed.

SAFETY DATA SHEET
8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	NIOSH	REL	2.0 mg/m ³	Aluminum (soluble salts and alkyls, as Al) (up to 10-hour total weighted average)
Threshold Limit Value:	Authority	Basis	Limit	Remarks
	ACGIH	TLV	2.0 mg/m ³	Aluminum (soluble salts and alkyls, as Al) (up to 8-hour total weighted average)
Special Equipment:	No Data Available.			
Respiratory Protection:	Respiratory protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).			
Protective Gloves:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands.			
Eye Protection:	Safety glasses with side shields or goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).			
Body Protection:	Wear appropriate protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.			

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	White	Molecular Weight:	181.83 g/mol
Forms:	Powder	Theoretical Density:	3.73 g/cm ³
Odor:	Odorless	pH:	No Data Available.
Water Solubility:	Insoluble	Auto-Ignition Temperature:	No Data Available.
Boiling Point:	No Data Available.	Evaporation Rate:	No Data Available.
Melting Point / Freezing Point:	> 1,860°C (> 3,380°F)	Flammability or Explosive Limits:	No Data Available.
Vapor Pressure:	No Data Available.	Partition Coefficient: n-octanol/ water	No Data Available.
Vapor Density:	No Data Available.	Decomposition Temperature:	No Data Available.
Flash Point:	No Data Available.	Viscosity:	No Data Available.

10. REACTIVITY

Stability:	Stable under recommended storage conditions.
Reacts with:	No Data Available.
Incompatible Conditions:	Strong oxidizing agents.
Hazardous Decomposition Products:	Hazardous decomposition products formed under fire conditions may include: Titanium Oxide or Aluminum Oxide fumes.

11. TOXICOLOGICAL INFORMATION**Acute Toxicity**

Eyes: No Data Available.

Skin: No Data Available.

Ingestion: May cause irritation.

Inhalation: May cause irritation.

Chronic Toxicity

Skin Corrosion / Irritation: No Data Available.

Serious Eye Damage / Irritation: No Data Available.

Respiratory / Skin Sensitization: No Data Available.

Mutagenic Effects: No Data Available.

Reproductive / Teratogenic Effects: No Data Available.

Specific Target Organ Toxicity: No Data Available.
(single exposure)Specific Target Organ Toxicity: No Data Available.
(repeated exposure)

Aspiration Hazard: No Data Available.

Other Adverse Effects: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Additional Information: No Data Available.**12. ECOLOGICAL INFORMATION****Aquatic Toxicity:** No Data Available.**Persistence and degradability:** No Data Available.**Bioaccumulative potential:** No Data Available.**Notes:** No Data Available.**13. DISPOSAL CONSIDERATIONS****Disposal:** Offer surplus and non-recyclable materials to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Empty containers should be taken to an appropriate waste handling site for recycling or disposal. Dispose of in accordance with local, state, or national regulations.

SAFETY DATA SHEET
14. TRANSPORTATION DATA

Hazardous:
DoT: Not Dangerous Goods.
IMDG: Not Dangerous Goods.
IATA: Not Dangerous Goods.

Pictogram: N/A

Hazard Class: N/A

Packing Group: N/A

UN Number: N/A

US DoT **Proper Name:** N/A

Marine Pollutant:

IMDG **Proper Name:** N/A

EMS-No:

Marine Pollutant:

IATA **Proper Name:** N/A

15. REGULATORY INFORMATION

Toxic Substance Control Act Listed.

SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimus) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards No SARA Hazard

Massachusetts Right to Know Components No components are subject to the Ma. Right to Know Act.

Pennsylvania Right to Know Components Aluminum Titanate (CAS No. 12004-39-6)

New Jersey Right to Know Components Aluminum Titanate (CAS No. 12004-39-6)

California Prop. 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

16. OTHER INFORMATION

Copyright 2019 Lorad Chemical Corporation. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. The information in this sheet does not represent a guarantee of the properties of the product. Lorad Chemical Corporation and its Affiliates make no warranty with respect to the accuracy of the information or the suitability of this product for any particular application, and shall not be held liable for any damage resulting from handling or from contact with the above product.

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