



SAFETY DATA SHEET

U.S. Department of Labor
Occupational Safety & Health Administration

Polaroof AC

SECTION 1 - IDENTIFICATION

MANUFACTURER: Andek Corporation
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PRODUCT IDENTIFIER: Polaroof AC
RECOMMENDED USE: Protective Coating

SECTION 2 – HAZARD IDENTIFICATION

HAZARD CLASSIFICATION (EFFECTS OF EXPOSURE):

Skin: No irritation hazard in normal industrial use.
Eyes: No irritation hazard in normal industrial use.
Inhalation: No irritation hazard in normal industrial use.
Ingestion: Ingestion of large amounts may cause nausea and/or constipation.
Sensitization: Does not cause sensitization.

SIGNAL WORD: Warning - No hazard in normal industrial use.

HAZARD STATEMENTS:

Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation of dust (not ingestion). This classification is based upon animal inhalation studies. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Not considered to be harmful to aquatic life.

PICTOGRAMS: None Necessary.

PRECAUTIONARY STATEMENTS:

Prevention:

- **Do Not** handle until all safety precautions have been read and understood.
- **Do Not** breathe dust or spray.
- **Do Not** get in eyes, on skin, or on clothing.
- Wash thoroughly after handling.
- **Do Not** eat, drink or smoke when using this product.

Response:

- **Skin:** Wash affected areas thoroughly with soap and water. Wash contaminated clothing before reuse.
- **Eyes:** Use eyewash to remove substance from eyes. Get medical advice if irritation develops.
- **Inhalation:** Call a POISON CENTER/ doctor if spray or dust is inhaled.
- **Ingestion:** **Do Not** induce vomiting. Get Medical advice/attention if you feel unwell; rinse mouth.

Storage:

- Store in a cool dry place.
- **Do Not** allow this material to freeze.

Disposal:

- Waste disposal should be in accordance with existing federal, state and local environmental control laws.

SECTION 3 – COMPOSITION

CHEMICAL NAME	CAS #	APPROX %
Acrylic Resin	25085-46-5	34.0
Barium Sulfate	7727-43-7	10.7
Titanium Dioxide	13463-67-7	5.7
Aluminum Trihydrate	21645-51-2	33.9
Dispersant (nonionic)/Defoamer (Silicone Emulsion)	744-21-3	0.5
Fungicides	1897-45-6	0.3
Water	7732-18-5	14.9

SECTION 4 – FIRST AID MEASURES

Skin: Wash with soap and water.

Eyes: Flush with plenty of water to remove any substance in the eyes. Remove contact lenses if present. Seek medical advice if irritation develops.

Inhalation: If mist (over spray) or dust (from sanding) is inhaled, move person to fresh air. If person is not breathing, call 911 or an ambulance and then give artificial respiration. Call for medical attention.

Ingestion: **Do Not** induce vomiting. Seek medical attention if symptoms develop.

SECTION 5 – FIRE-FIGHTING MEASURES

Flash point: Non Flammable.

Flammable limits: None Established.

Extinguishing media: Use water spray, foam dry chemical or carbon dioxide. Apply whatever media deemed appropriate for surrounding fire.

Special fire fighting procedures: Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

Unusual fire & explosion hazards: There may be a possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.

Decomposition products: Carbon dioxide, carbon monoxide, phosphorous compounds.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions:

- Wear safety glasses when handling this product.
- No adverse health effects expected from the clean-up of spilled material.

Cleanup procedures:

- Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal.
- Keep spilled product out of sewers, watersheds, or water systems.

SECTION 7 – HANDLING & STORAGE

Precautions for safe handling:

- No special handling instructions due to toxicity.
- This product contains limited amounts of residual monomer. Under normal handling and use conditions the residual monomer should not present a hazard.
- In storage the monomer will migrate from the emulsion and establish equilibrium between the headspace in the storage container and the liquid emulsion.
- Levels in excess of acceptable exposures can accumulate in non-vented headspaces above the emulsion.

Recommendations on the conditions for safe storage: Store in a cool, dry place.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

CHEMICAL NAME	PEL	TLV
Aluminum Trihydrate	N/A	10 mg/M ³ (TWA)
Titanium Dioxide	15 mg/M ³ (8 Hr. TWA)	10 mg/M ³ (8 Hr. TWA)

Engineering controls:

- No exposure limits exist for the constituents of this product.
- No engineering controls are likely to be required to maintain operator comfort under normal conditions of use.

Inhalation protection:

- No respiratory protection required under normal conditions of use.
- Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

Eye protection: Wear safety glasses when handling this product.

Skin and body protections:

- Not normally considered a skin hazard.
- Where use can result in skin contact, practice good personal hygiene.
- Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Other hygienic practices and protective equipment: Use nitrile gloves if conditions warrant.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Semi Thixotropic liquid

Physical state: Liquid

Color: From white and pastels to black and deep tone colors

Odor: Slight ammonia odor

Odor threshold: None established

pH: 9.5

Melting point/freezing point: 32°F Freezing point

Initial boiling point and boiling range: 212°F Boiling point

Flash point: Non flammable

Evaporation rate: 1.0 (water =1)

Flammability: Non flammable

Upper/lower flammability or explosive limits: None established

Vapor pressure: 23 hPa (17 mmHg) @ 20°C (68°F)

Vapor density: 1.24 g/cm³ @ 20°C (68°F)

Relative density: 1.50 kg/Lt

Solubility: Soluble with water and alcohol

Partition coefficient: n-octanol/water: None established

Auto-ignition temperature: None established

Decomposition temperature: 200°C (392°F)

Viscosity: 115 Krebs units @ 20°C (68°F)

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Will not occur.

Chemical stability: Stable under normal conditions.

Incompatibility: Not established.

Hazardous decomposition products: Phosphorus compounds, carbon monoxide, carbon dioxide

SECTION 11 – TOXICOLOGICAL INFORMATION

The following information regarding health hazards is based upon third-party research studies.

Effects of Acute Exposure:**Inhalation:** Inhalation of dust or mist can cause irritation of the eyes, nose, throat, and lungs.**Eye Contact:** Like any foreign body, particles can cause mechanical irritation.**Skin Contact:** This material can cause irritation if not promptly washed from the skin. This product is not expected to be absorbed through intact skin.**Ingestion:** This material is not expected to produce adverse effects.**Effects of Chronic Exposure:****Titanium Dioxide:**

- In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have been shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals, such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer.
- Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide.
- Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion).
- It has not been characterized as a potential carcinogen by either NTP or OSHA.

Numerical measures of toxicity:

CHEMICAL NAME	Oral LD50	Dermal LD50	Inhalation LC50
Titanium Dioxide	10,000 mg/kg (rat)	10,000 mg/kg (rabbit)	6.8 mg/Lt (4 Hr. rat)
Aluminum Trihydrate	5,000 mg/kg (rat)	N/A	N/A

SECTION 12 – ECOLOGICAL INFORMATION**Data from toxicity test (aquatic and/or terrestrial organism where available):**

CHEMICAL NAME	Algae/Aquatic Plants	Fish	Toxicity to Microorganism	Crustacea (Aquatic Invertebrates)
Aluminum Trihydrate	N/A	EC50 >10,000 mg/l	N/A	EC50 >10,000 mg/l (Daphnia)
Chlorothalonil (ISO)	EC50/120 h - 0.21 mg/l (Selenastrum capricornutum)	LC50/96 h - 62 mg/l (Bluegill sunfish)	N/A	N/A

Biodegradation:

- Aluminum Trihydrate is non-degradable
- Chlorothalonil (ISO) is not readily biodegradable

Bioaccumulation potential:

- Aluminum Trihydrate is inert.

Mobility in soil:

- Aluminum Trihydrate is inert.

Other adverse effects:

Amount of Chlorothalonil (ISO) present in product is below the level considered to constitute as aquatic environmental hazard.

SECTION 13 – DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14 – TRANSPORT INFORMATION

UN #	N/A
UN PROPER SHIPPING NAME:	Paint
HAZARD CLASS:	N/A
PACKING GROUP:	N/A
ENVIRONMENTAL HAZARDS:	N/A
GUIDANCE ON TRANSPORT IN BULK:	N/A

Transport labels required: This product is not regulated by the D.O.T.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulation:

SARA 311/312 Hazard Categories: None of the ingredients of this product are subject to SARA 311-312

SARA 313:

CHEMICAL NAME	CAS #
Chlorothalonil (ISO)	1897-45-6

US State Right to Know Regulations: New Jersey, Massachusetts, Pennsylvania, Rhode Island

CHEMICAL NAME	CAS #
Titanium Dioxide	13463-67-7
Aluminum Trihydrate	21645-51-2
Chlorothalonil (ISO)	1897-45-6

CA Prop 65

CHEMICAL NAME	
Chlorothalonil (ISO)	Although present, is at a level below that which requires a proposition 65 warning.
Titanium Dioxide	Although present, is bound within the matrix of the product and is not considered to be within the hazard criteria.

Canada

CHEMICAL NAME	
Titanium Dioxide	Listed
Aluminum Trihydrate	Listed

SECTION 16 – OTHER INFORMATION (HMIS RATING)

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	B

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