SAFETY DATA SHEET
U.S. Department of Labor
Occupational Safety & Health Administration

Polajoint - Part A

SECTION 1 - IDENTIFICATION

MANUFACTURER:	Andek Corporation
ADDRESS:	850 Glen Avenue, Moorestown, NJ 08057
TELEPHONE:	1-856-786-6900
	In an emergency, contact CHEMTREC 1-800- 424-9300;
	Outside the United States call +1-703-527-3887
PRODUCT IDENTIFIER:	Polajoint - Part A
RECOMMENDED USE:	Industrial Sealant

SECTION 2 – HAZARD IDENTIFICATION

HAZARD CLASSIFICATION (EFFECTS OF EXPOSURE):
Skin: Irritant – Category 2 Sensitization – Category 1
Eyes: Category 2B|
Aquatic Toxicity: Category 2

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

HAZARD STATEMENTS:

- May be harmful if swallowed.
- Causes mild skin irritation.
- May cause an allergic skin reaction.
- Causes eye irritation.

PICTOGRAMS:

PRECAUTIONARY STATEMENTS:
Prevention:

- **Do Not** get in eyes, on skin, or on clothing.
- Wash thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- **Skin:** Wash with plenty of water.
- **Eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do and continue rinsing. If eye irritation persists get medical advice/attention.
- **Inhalation:** No specific measures.
- **Ingestion:** Rinse mouth. **Do Not** induce vomiting.

Storage:

- Store in a dry place. Store in a closed container.

Disposal:

- Waste disposal should be in accordance with existing federal, state and local environmental control laws.
- Incineration is the preferred method.

SECTION 3 – COMPOSITION

CHEMICAL NAME	CAS #	APPROX %
Epoxy Resin	25068-38-6	29
Alkyl (C12-14) Glycidyl Ether	68609-97-2	6
Alkyl Phenol Blocked Polyisocyanate	Trade Secret	15
Barium Sulfate	7727-43-7	49
Titanium Dioxide	13463-67-7	1

SECTION 4 – FIRST AID MEASURES

Skin:

- **Do Not Delay -** Remove contaminated clothing and wash skin with water using soap if available.
- If persistent irritation occurs, obtain medical attention.

Eyes:

- **Do Not Delay** - Flush eye with water.
- If persistent irritation occurs, obtain medical attention.

Inhalation:

- No specific measures.

Ingestion:

- **Do Not** induce vomiting.
- In the unlikely event of ingestion, obtain medical attention immediately.

Advice to physicians:

- If skin sensitization has developed and a causal relationship has been confirmed further exposure should not be allowed.

SECTION 5 – FIRE-FIGHTING MEASURES

Specific hazards:

- Not classified as flammable but will burn.
- Carbon monoxide may be evolved if incomplete combustion occurs.

Extinguishing media:

- **Small fires:** Dry chemical powder, carbon dioxide, foam, water spray or fog, sand or earth.
- **Large fires:** Foam, water spray or fog.

Unsuitable extinguishing media:

- Water in a jet.

Protective equipment:

- Full protective clothing and self-contained breathing apparatus.

Other Information:

- Keep adjacent containers cool by spraying with water.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions:

- Avoid contact with skin, eyes and clothing.

Personal protection:

- Wear protective clothing specified for normal operations (see Section 8).

Environmental precautions:

- Prevent contamination of soil and water.
- Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers.
- If material enters drains it should be pumped out into an open vessel. Emergency services may need to be called to assist in this operation.

Clean-up methods - small spillage:

- Absorb or contain liquid with sand, earth or spill control material.
- Shovel up and place in a labeled, sealable container for subsequent safe disposal.
- Scrub contaminated surfaces with a detergent solution.
- Retain washings as contaminated waste.
- Put leaking containers in a labeled drum or over drum.

Clean-up methods - large spillage:

- Transfer to a labeled container for product recovery or safe disposal.
- Otherwise treat as for small spillage.

Other information:

- See Section 13 for information on disposal.

SECTION 7 – HANDLING & STORAGE

Handling:

- Avoid contact with skin, eyes and clothing.

Storage:

- Keep container tightly closed and dry.
- Palletized loads should be stacked to a maximum of 4 high.
- Storage temperatures: between 50ºF and 90ºF.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

CHEMICAL NAME	PEL	TLV
Epoxy Resin	N/A	LD50 >8g/kg (Oral toxicity)
Titanium Dioxide (dust)	15 mg/m³ (OSHA Z1)	10 mg/m³ (TWA) ACGIH

Occupational exposure standards:

- None established.

Inhalation protection:

- Not normally required.
- In a confined space, wear half mask respirator with organic vapor cartridge and built-in particulate filter NPF 20 (gas only).

Eye protection:

- Mono-goggles

Skin and body protections:

- Nitrile rubber gloves or butyl rubber gloves, gauntlet type.
- Standard issue work clothes.
- Safety boots - chemical resistant without lace holes.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Viscous, Newtonian liquid
Physical state: Liquid
Color: Light Gray
Odor: Slight
Odor threshold: None established
pH: 7.0
Melting point/freezing point: Crystallizes below 50ºF / re-melts at above 100ºF
Initial boiling point and boiling range: 390 to 400ºF
Flash point: 392ºF
Evaporation rate: Non volatile
Flammability (solid, gas): Not flammable but combustible at high temperatures
Upper/lower flammability or explosive limits: None established
Vapor pressure: 0.01 P_a @20ºC
Vapor density: None established
Relative density: 1.44 kg/lt
Solubility: Insoluble with water
Partition coefficient: n-octanol/water: 0g P_{ow} >3
Auto-ignition temperature: 572ºF
Decomposition temperature: None established
Viscosity: 9,000 centipoises @25ºC

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:

- Reacts with strong oxidizing agents.
- Polymerizes exothermically with amines, mercaptans and Lewis acids at ambient temperature and above.
- Polymerizes in contact with caustic soda.
- Reacts exothermically with bases (e.g. caustic soda), ammonia, primary and secondary amines, alcohols and acids.

Chemical stability:

- Stable under normal use conditions.

Incompatibility (materials to avoid):

- Strong oxidizing agents.
- Caustic soda.

Hazardous decomposition products:

- Not expected to form during normal storage.

Conditions to avoid:

- Caustic soda can induce a vigorous polymerization at temperatures around 200ºC.

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely routes of exposure:

Oral:

- Unlikely, but if swallowed, epoxy resin has low toxicity in small amounts.
- Swallowing large amounts may cause injury.

Inhalation:

- Not irritating at room temperature.
- Vapor from heated products may cause irritation.

Dermal:

- Prolonged or repeated contact may cause skin irritation with local redness.
- Prolonged contact is unlikely to result in absorption of harmful amounts.
- Sensitization may occur in some individuals.

Effects from short and long term exposure:

Epoxy Resin

- Many studies have been conducted including a recent review by the international agency for research on cancer (IARC) to assess the potential carcinogenicity of epoxy resin.
- All available data concludes that it is not classifiable as to its carcinogenicity or mutagenicity.

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
Epoxy Resin	>2,000 mg/kg	>2,000 mg/kg	N/A
Titanium dioxide	10,000 mg/kg	10,000 mg/kg	6.8 mg/Lt (4 Hr)

SECTION 12 – ECOLOGICAL INFORMATION

Data from toxicity test (aquatic and/or terrestrial organism where available): 5 columns

CHEMICAL NAME	Algae/Aquatic Plants (EC50)	Fish (LC50)	Toxicity to Microorganism	Crustacea (Aquatic Invertebrates)
Titanium Dioxide	16 mg/lt 72 hr (Pseudokirchneriella subcapitata)	>1000 mg/lt 96 hr - Pimephales promelas (fathead minnow)	NOEC 28 d ≥100,000 mg/kg (Hyalella azteca)	LC50 100 mg/lt 48 hr - Daphnia magna)
Epoxy Resin	11 mg/lt 72 hr Scenedesmus capricornutum	2 mg/lt 96 hr – Rainbow Trout	42.6 mg/lt IC50 18 hr	EC50 1.8 mg/lt 48 hr Daphnia magna

Biodegradation: Not readily biodegradable but will degrade slowly on the surface by photodegradation.

Bioaccumulation potential: It has the potential to bioaccumulate with an octanol/water partition coefficient log P_{ow} of >3.

Mobility in soil: Epoxy resin will bind to soil particles but it is insoluble in water and will sink to the bottom.

Other adverse effects: This epoxy resin is a reaction product of Bisphenol A and Epichlorohydrin. There have been numerous studies conducted to assess the ecological characteristics of both of these substances. None, however, were determined to be relevant in this instance.

SECTION 13 – DISPOSAL CONSIDERATIONS

Precautions: See Section 8. Refer to Section 7 before handling the product or containers.

Disposal of waste/ product:

- Recover or recycle if possible.
- Otherwise incineration or dispose to licensed disposal contractor.

Disposal of contaminated packaging:

- Drain container thoroughly.
- Rinse three times with suitable solvent. Treat rinsing as for product disposal.
- After draining, vent in a safe place away from sparks and fire.
- Send to drum recoverer or metal reclaimer.

SECTION 14 – TRANSPORT INFORMATION

UN #	None
UN PROPER SHIPPING NAME:	Paint
HAZARD CLASS:	N/A
PACKING GROUP:	N/A
ENVIRONMENTAL HAZARDS:	Not a marine pollutant.
GUIDANCE ON TRANSPORT IN BULK	N/A

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

SECTION 15 – REGULATORY INFORMATION

US Federal Regulation:
SARA 311/312 Hazard Categories: Not listed

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

CHEMICAL NAME	CAS #
Epoxy Resin	25068-38-6
Titanium Dioxide	13463-67-7

CA Prop 65:

CHEMICAL NAME	CAS#	
Titanium Dioxide	13463-67-7	Although present, is bound within the matrix of the product and is not considered to be within the hazard criteria.

Canada

CHEMICAL NAME	CAS#
Epoxy Resin	25068-38-6
Titanium Dioxide	13463-67-7

SECTION 16 – OTHER INFORMATION (HMIS RATING)

Health	1
Flammability	1
Physical Hazard	0
Personal Protection	H

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