



# SAFETY DATA SHEET

Date Prepared: May 1, 2015

1. **Product and Company Identification**

**CEDA Specialty Services LP**  
2130-121 Ave. NE  
Edmonton, Alberta T6S 1B1  
Canada  
(780) 472-6766

Product Name: E.S. 427 Part Two (Liquid Mix)  
Product Type: Epoxy Liquid  
Product Description: Cream Colored Liquid  
General Use : Coating or Void Fill

2. **Hazards Identification**

**GHS Classification :**

Skin Irritation, 2  
Skin Sens. 1  
Eye Irritation, 2  
Aquatic Chronic 2  
Acute Tox. 4

**GHS Label Elements :**

Signal Word : Warning



**Hazard Statements:**

H315 / 320 Causes Skin and Eye Irritation  
H303/H313/H333 May be harmful if swallowed, in contact with skin or inhaled  
H317 May cause an allergic skin reaction  
H335 May cause respiratory irritation  
H413 (Uncured material) May cause long lasting affects to aquatic life

**Precautionary Statements :**

P261 Avoid breathing vapors  
P262 Do not get in eyes, on skin, or on clothing  
P285 In case of inadequate ventilation wear respiratory protection  
P281 Use personal protective equipment as required  
P301/P310 If Swallowed: Immediately call a Poison Center or Physician  
P333/P313 If skin irritation or rash develops: Get medical attention.  
P302/P352 If on skin: Wash with plenty of soap and water  
P305/P351/P338 If in eyes : Rinse cautiously with water for several minutes.  
Remove contact lenses if easy to do. Continue Rinsing.  
P337/P313 If eye irritation persists: Get medical attention  
P342/P311 If experiencing respiratory symptoms : Get medical attention.  
P233 Keep container tightly closed  
P210 Keep away from open flames. – No Smoking  
P501 Dispose of observing all Federal, State and Local regulations.

**3. Composition / Information on Ingredients**

Ingredients	CAS No.	% by weight
Fatty Acids, C18-unsatd., dimers, reaction with polyethylenepolyamines	68410-23-1	70-100
Triethylenetetramine	112-24-3	5-10
Titanium Dioxide	13463-67-7	<2

**4. First Aid Measures**

- Ingestion:** DO NOT INGEST. Wash mouth out with water. Remove dentures if any. DO NOT INDUCE VOMITING unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Inhalation:** Remove to fresh air. If symptoms persist, seek medical attention. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous for the person providing aid to give mouth to mouth resuscitation. If unconscious place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin Contact:** Flush skin with plenty of water, Remove contaminated clothing or shoes. Continue to rinse for at least 10 minutes. Contact physician if irritation or rash develops. For contact with hot product, flush contaminated skin with large amounts of cold water to dissipate heat. Cover burned skin with cotton sheeting or gauze. Get medical attention immediately.
- Eye Contact:** Flush with water 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.

**5. Fire Fighting Measures**

- Recommended Extinguishing Agent:**  
Use an extinguishing agent suitable for surrounding fire.
- Special Fire Fighting Procedures:**  
Self contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. (Professionally Trained Personnel).
- Hazardous Products Formed by Fire or Thermal Decomposition:**  
Carbon oxides, nitrogen oxides
- Unusual Fire or Explosion Hazards:**  
Closed containers may rupture when exposed to extreme heat or fire conditions
- Compressed Gases:** None
- Pressure at Room Temperature:** Does not apply

**6. Accidental Release Measures**

- Steps to be taken in cases of spill or leak:
- Wear proper personal protective equipment. Remove any sources of ignition from the area and allow hot surfaces to cool. Return uncontaminated material to metal container and seal container tightly. Do not walk through spilled material. Avoid run off to soil, waterways or drains or sewers. Contain and collect spillage with non-combustible absorbent material e.g. sand, earth, vermiculite or diatomaceous earth. Dispose of contaminated material or waste properly.

**7. Handling and Storage**

**Storage:** Cool, dry, storage below 90 degrees F, protected from direct sunlight.. Store in closed containers. If material has solidified in storage, follow instructions on label to return it to liquid form.

**Handling:** Avoid contact with skin and eyes. Do not breathe vapors. This product in its purchased form does not create an inhalation hazard from fibers or dust. If grinding or sanding or any other process is performed to this compound (in cured state) will cause airborne particles wear appropriate respirator to avoid breathing any dust or vapors. Wear appropriate safety gear as required in work area.

**8. Exposure Controls / Personal Protection**

Exposure Limits Ingredients	ACGIH (TLV)	OSHA (PEL)	OTHER
Fatty Acids, C18-unsatd., dimers, reaction with polyethylenepolyamines	NONE	NONE	
Triethylenetetramine	NONE	NONE	
Titanium Dioxide	10mg/m3 TWA	15mg/m3	

**Personal Protective Equipment (PPE)**

**Eyes:** Safety Glasses

Full face shield recommended. (during injection or pouring process)

**Skin:** Chemical resistant gloves. Long term application-butyl rubber or ethyl vinyl alcohol laminate (EVAL), gauntlet type. Short term/splash application nitrile rubber, gauntlet type.

**Respiratory Protection:**

If necessary, use a properly fitted air-purifying or air fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

**Other Protective Clothing or Equipment:**

Coveralls or other protective clothing. Safety equipment as required in area.

**Work / Hygienic Practices:**

Avoid contact with skin. Wash hands before eating, smoking or using the lavatory..

**Engineering Controls :** Ventilation: Local exhaust if poorly ventilated area or in confined spaces.

**9. Chemical and Physical Properties**

**Appearance:** Cream Colored liquid

**Odor:** amine odor

**pH:** 7.7 (Cured)

**Solubility in Water:** NIL

**Specific Gravity:** .98 (H2O =1)

**Evaporation Rate:** Not Applicable

**Boiling Point:** Not available

**Melting Point:** Not Applicable

**Vapor Pressure:** Negligible

**Vapor Density:** Greater than 1`

**V.O.C. Content :** 0.0944% by weight (when mixed 1-1 ratio with part two) ASTM D2369-10

**Flash Point:** >110 C (>230 ° F.) Method: Open Cup ASTM D 4206

**Flammable Limits:**

**LEL:** Not Established

**UEL:** Not Established

**10. Stability and Reactivity**

Stability: Stable  
 Hazardous Polymerization: Will not occur  
 Hazardous Decomposition  
 Or By-Products: Carbon Oxides, Nitrogen Oxides  
 Incompatibility: Strong Oxidizers

**11. Toxicology Information**

Primary Routes of Entry: Inhalation and contact.  
 Signs and Symptoms of Overexposure: **Inhalation:** respiratory tract irritation, coughing, wheezing and breathing difficulties  
**Eyes:** irritation, pain, watering, redness  
**Skin:** irritation, redness

Existing Conditions Aggravated by Exposure:

Pre-existing skin condition if prolonged exposure to skin. (Wear chemical resistant gloves, see section 8)  
 Pre-existing respiratory and skin disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

Carcinogenicity

NTP: None  
 IARC: Titanium Dioxide, Group 2B IARC (product is a liquid, not a dust respiratory hazard in purchased form)  
 OSHA Regulated: NO

Toxicity :

Fatty Acids, C18-unsatd., dimers, reaction with polyethylenepolyamine	LD50 Oral	Rat	>5000 mg/kg
Triethylenetetramine	LD50 Oral	Rat	1080 mg/kg
	LD50 Dermal	Rabbit	675 mg/kg

Acute Health Hazards: **Skin:** Irritation, may cause allergic skin reaction.  
**Inhalation:** slightly irritating to respiratory system.  
**Eyes:** irritation

Chronic Health Hazards: Contains material that can cause target organ damage. kidneys, lungs, liver  
 Teratogenicity: Contains material which can cause birth defects, based on animal data.

**12. Ecological Information**

No information is available.

**13. Disposal Considerations**

Recommended Methods of Disposal:

Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product solutions and by-products should at all times comply with the requirements of the environmental protection and waste disposal legislation and any regional local authority requirements. Certain state regulations could affect whether a material is considered a hazardous waste upon disposal. It must also be noted that a material can become a hazardous waste if it is mixed with or comes in contact with a hazardous substance during use. Under RCRA it is the responsibility of user of a product to determine at the time of disposal, whether a material should be classified as a hazardous waste.

**14. Transport Information**

DOT (49 CFR 172): Not Regulated

IATA : Not Regulated

Liquid / Solid (per ASTM D 4359-90) : Material is a liquid

**15. REGULATORY INFORMATION**

CERCLA HAZARDOUS SUBSTANCES (40 CFR Part 302.4): This product is not reportable under 40 CFR Part 302.4.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR Part 355): This product does not contain any SARA 302 Extremely Hazardous Substances.

SARA TITLE III SECTION 311/312 HAZARDOUS CATEGORIZATION (40 CFR Part 370): Certain ingredients of this product are regulated under Sara Title III Section 311/312, see section 3 of this MSDS.

SARA TITLE III SECTION 313 (40 CFR Part 372): None

U.S. INVENTORY (TSCA): Any chemical substances (as defined in 40 CFR Part 710.2), that are contained in, or used in the manufacture of this product, are reported in the EPA TSCA Inventory. (As required per 40 CFR 710.3)

CALIFORNIA PROPOSITION 65: Titanium Dioxide (airborne particles of respirable size) does not cover titanium dioxide when it is bound within a product matrix. (Particles not airborne, product is a liquid)

CANADA WHMIS: Ingredient Disclosure List : Triethylenetetramine, Titanium Dioxide  
WHMIS Classification : Triethylenetetramine D1B, D2B, E, Titanium Dioxide: D2A

EUROPEAN UNION : Fatty Acids, C18-unsatd., dimers, reaction with polyethylenepolyamines : CLP Skin Irritation, 2  
Eye Irritation, 2 Triethylenetetramine : CLP Acute Tox 4, Skin Corrosive 1B, Skin sens. 1,  
Aquatic Chronic 3 Titanium Dioxide: CLP Acute Tox 4, Carc. 2

OZONE DEPLETERS: \* This product is not manufactured with or contains any Class I or Class II Ozone Depleting Chemicals. (ODC's)

**16. OTHER INFORMATION**

The information contained in this MSDS sheet is based upon data supplied by our suppliers and data determined by us in our facilities at the time these products were formulated. We have reviewed any information that we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety data in this sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. If after reviewing this MSDS you have determined that this product poses unusual risks to you, your plant, or your plant personnel, or if you cannot comply fully with all safety recommendations, do not use this product. This product is intended for a temporary repair. The responsibility for whether or not the product is suitable for use rest solely with the purchaser. We recommend that the product be tested prior to use. Your use of this information is beyond our control, therefore, the information is provided without warranty expressed or implied. We accept no liability beyond the purchase price of the material.

**Estimated HMIS® Code:**

Health Hazard:	*2	* See section 11 for chronic effects.
Flammability Hazard:	1	
Physical Hazard:	0	
Personal Protection:	NPCA recommends that PPE codes be determined by the employer, who is familiar with the actual conditions under which chemicals in the facility are used.	

**Attn: Technician**

(For industrial use by professionally trained personnel only) If being injected, steps should be taken to insure that the injection pressure does not exceed the pressure limitations of the piping system. Also, be aware it is quite common that the application temperature will exceed the compound flash point. Be aware of the possibility of a flash and take necessary precautions. See section 8 of SDS for personal protective equipment. Ventilation may be needed during heating/curing stage to exhaust organic vapors resulting from vaporization of certain organic agents. Always avoid direct contact with heated vapors being emitted from the compound. These vapors may be irritating to the skin, eyes and respiratory system. Read product technical data and safety information before use.

**PREPARATION INFORMATION**

Prepared By:	Safety Department
Company:	CEDA Specialty Services LP
Revision Date:	05-01-15 Revision: F