

Date Prepared: February 1, 2017

1. Product and Company Identification

Jet-Lube LLC / Deacon
Bldg. #1, West Point Drive
Washington, PA 15301 USA
Phone (724) 225-8008

24 Hour Emergency Response Contact:
CHEMTREC (USA and CANADA)
Phone: 800-424-9300 or 703-527-3887

Product Name: Deacon 427 Part One (Liquid Mix)
 Product Type: Epoxy Liquid
 Product Description: Black Liquid
 General Use : Coating or Void Fill

2. Hazards Identification

GHS Classification :

Skin Irritation, 2
 Skin Sens. 1
 Eye Irritation, 2
 Aquatic Chronic 2

GHS Label Elements :

Signal Word : Warning



Hazard Statements:

H315 / 320 Causes Skin and Eye Irritation
 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
4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer	25068-38-6	70-100
Natural Graphite	7782-42-5	1-20

4. First Aid Measures

- Ingestion: DO NOT INGEST. Wash mouth with water. Remove dentures if any. If material has been swallowed, and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. 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. Get medical attention if adverse health affects persist. Never give anything by mouth to an unconscious person.
- 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.
- 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. If symptoms persist, seek 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
- 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. Dispose of contaminated material or waste.

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
4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer	Not Established	Not Established	
Natural Graphite	2.0 mg/m3 TWA Respirable Dust	N/E	3 mg/m3 for nuisance dust

Personal Protective Equipment (PPE)

Eyes: Safety Glasses
Full face shield recommended. (during injection or pouring process)

Skin: Chemical resistant gloves.

Respiratory Protection:

If necessary, use a properly fitted air-purifying 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: Black liquid
 Odor: slight odor
 pH: 7.7 (Cured)
 Solubility in Water: NIL
 Specific Gravity: 1.17 (H₂O =1)
 Evaporation Rate: Not Applicable
 Boiling Point: over 500 F
 Melting Point: Not Applicable
 Vapor Pressure: 0.3 mbar @77 C (171 F)
 Vapor Density: Not Established
 V.O.C. Content : 0.0944% by weight (when mixed 1-1 ratio with part two) ASTM D2369-10
 Flash Point: 251 C (484 ° F.) Method: Pensky-Martens Closed Cup ASTM D 93

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
 Incompatibility: Strong Oxidizers

11. Toxicology Information

Primary Routes of Entry: Inhalation and contact.
Signs and Symptoms of Overexposure: **Inhalation:** respiratory tract irritation, coughing
Eyes: redness and irritation.
Skin: redness and itching.

Existing Conditions Aggravated by Exposure: Pre-existing skin condition if prolonged exposure to skin. (Wear chemical resistant gloves)

Carcinogenicity

NTP:	None
IARC:	None
OSHA Regulated:	NO
Toxicity :	LD50 Oral Rat 30,000 mg/kg
	LD50 Dermal Rat >2000 mg/kg

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

Chronic Health Hazards: None Known

12. Ecological Information

No information is available.

13. Disposal Considerations

Recommended Methods of Disposal:

RCRA 40 CFR 261 Classification : This product as purchased does not fall under current US EPA RCRA definitions of Hazardous Waste.

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: None

CANADA WHMIS: Ingredient Disclosure List : None WHMIS Classification: 4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer D2B

EUROPEAN UNION : 4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer: CLP Skin Irritation, 2
Skin Sensitivity 1, Eye Irritation, 2, Aquatic Chronic 2
Natural Graphite: CLP STOT SE3

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
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:	Jet-Lube LLC / Deacon
Revision Date:	05-01-15 Revision: F

Date Prepared: February 1, 2017

1. **Product and Company Identification**

Jet-Lube LLC / Deacon
Bldg. #1, West Point Drive
Washington, PA 15301 USA
Phone (724) 225-8008

24 Hour Emergency Response Contact:
CHEMTREC (USA and CANADA)
Phone: 800-424-9300 or 703-527-3887

Product Name: Deacon 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: Jet-Lube LLC / Deacon
Revision Date: 05-01-15 Revision: F