

3. Composition / Information on Ingredients

| Ingredients | CAS No. | % by weight |
|---------------------------|-------------|-------------|
| Solvent Mixture | 64742-47-8 | 1-10 |
| Aluminosilicate | 142844-00-6 | 1-20 |
| Crystalline Silica | None | 1-20 |
| Aluminum | 7429-90-5 | 1-10 |
| Modified Natural Resins | Proprietary | 25-50 |
| Non Hazardous Ingredients | | 25-50 |

4. First Aid Measures

- Ingestion: DO NOT INGEST. Oral toxicity not determined. Do NOT induce vomiting. Even small amount of solvent aspirated into the lungs during ingestion or vomiting may cause aspiration pneumonitis. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Call a physician or get medical help immediately.
- Inhalation: Remove to fresh air. If symptoms persist, seek medical attention.
- Skin Contact: Wash with soap and water, consult physician if rash develops.
- Eye Contact: Flush with water 15 minutes. If symptoms persist, seek medical attention.

5. Fire Fighting Measures

- Recommended Extinguishing Agent:
Foam, Dry Chemical, Carbon Dioxide, Water Fog
- 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:
CO, CO₂, H₂S, SO₂, Smoke, Incomplete Combustion Products, Metal 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. Dispose of contaminated material or waste. Clean up with mineral spirits.

7. Handling and Storage

- Storage: Cool, dry, storage below 90 degrees F. Store in closed containers. Avoid contamination from water. Refrigerate for best shelf life.
- 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 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 |
|--|--|---|-------|
| Crystalline Silica | | | |
| Cristobalite | 0.05 mg/m3 (respirable) | 0.025 mg/m3 (respirable) | |
| Tridymite | 0.05 mg/m3 (respirable) | | |
| Quartz | 0.1 mg/m3 (respirable) | 0.025 mg/m3 (respirable) | |
| Solvent Mixture | 100ppm TWA | 500ppm TWA | |
| Aluminosilicate (respirable ceramic fibers) | 0.2 f/cc TLV, 8 hr, TWA | 0.5 f/cc, 8 hr. TWA* * (Manufacturer Recommendation) (California PEL is 0.2 f/cc, 8 hr TWA) | |
| Aluminum | 1 mg/m3 8 hrs Form : Respirable Fraction | 5 mg/m3 (as Al) 8 hours Form: Respirable Fraction 15 mg/m3 (as Al) 8 hours Form : Total Dust | |
| Modified Natural Resins | 10mg/m3 | 15mg/m3 | |

Personal Protective Equipment (PPE)

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

Skin: Chemical resistant gloves.

Respiratory Protection: NIOSH approved for organic vapors and dust.

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.

Engineering Controls : Ventilation: Local exhaust if poorly ventilated area or in confined spaces.
Ventilation should be provided during heat up to exhaust organic vapors resulting from vaporization of certain organic agents

9. Chemical and Physical Properties

Appearance: Gray putty-like compound

Odor: Solvent like

pH: 5.7

Solubility in Water: NIL

Specific Gravity: 1.52 (compressed, uncured) (H₂O =1)

Evaporation Rate: Not Applicable

Boiling Point: Not Applicable

Melting Point: Not Applicable

Vapor Pressure: Solvent only, mixture not tested :
0.6 kPa (2.2 mm Hg) at 20 C

Vapor Density: Solvent only, mixture not tested
5.5 (air =1)

VOC Content: Max. 6% by weight

Flash Point: 226^o F. Method: Cleveland Open Cup

Flammable Limits:

LEL: Not Established

UEL: Not Established

10. Stability and Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Hazardous Decomposition

Or By-Products: CO, CO₂, H₂S, SO₂, Smoke, Incomplete Combustion Products, Metal Oxides

Incompatibility: Strong Oxidizers and Strong Acids, Mineral Acids, Halogenated Hydrocarbons, Strong Alkalies

11. Toxicology Information

Primary Routes of Entry: Inhalation and contact.
 Signs and Symptoms of Overexposure: **Inhalation:** Possible dizziness or headaches, respiratory irritation. **Eyes:** Redness and irritation.
Skin: Chemical dermatitis, redness and itching.

Existing Conditions Aggravated by Exposure: Pre-existing skin condition if prolonged exposure to skin. (Wear chemical resistant gloves) Respiratory disorders, asthma, chronic emphysema, heart condition (if prolonged and continuous exposure to dust or vapors).
 Dust exposure is not a hazard with this product under normal use.
 Product is in a putty-like form. (Organic vapors, Wear recommended respirator if exceeding permissible exposure limit, see section 8)

Carcinogenicity

NTP: Crystalline Silica (respirable size) Known to be a Carcinogen
 Ceramic Fibers, (respirable size) Reasonably Anticipated to be a Carcinogen
 IARC: Crystalline Silica, Group 1 IARC
 Ceramic Fibers, (respirable size) 2B
 OSHA Regulated: NO
 Toxicity : (Solvent only, mixture not tested)
 Inhalation (Solvent): Low Toxicity: LC50 greater than near-saturated vapor concentration / 1 hour rat
 Skin (Solvent): Expected to be of Low Toxicity : LD50.2000 mg/kg, Rat mg/kg, rat
 Ingestion: (Solvent): Expected to be of Low Toxicity : LD50>2000 mg/kg, rat

Acute Health Hazards: **Skin:** Contact on bare skin can cause chemical dermatitis, redness, itching
Inhalation: Breathing excessive vapors may cause dizziness or headaches irritation of eyes, nose, throat, lungs and can cause central nervous system depression.

Chronic Health Hazards: **Inhalation:** Crystalline Silica, respirable size NTP Known Carcinogen. Ceramic Fibers, NTP Reasonably Anticipated to be a Carcinogen.
 Repeated exposure to solvent vapors above recommended exposure limits, can cause central nervous system effects, drowsiness, dizziness and headaches.
 (Wear recommended respirator if exceeding permissible exposure limit, see section 8)

See note below.

NOTE: THIS PRODUCT IN ITS PURCHASED FORM DOES NOT PRESENT AN INHALATION HAZARD FROM FIBERS OR DUST, AS IT IS A PUTTY-LIKE COMPOUND. FIBERS AND DUST ARE NOT AIRBORN UNDER NORMAL HANDLING.

12. Ecological Information

Solvent Only : Expected to have low toxicity. LC/EC/IC50 > 1000 mg/l, Fish, Aquatic Invertebrates, Algae, Microorganisms.
 Mobility - Absorbs to soil and has low mobility. Floats on water.

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 solid

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): Aluminum (fume, dust),

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: Crystalline Silica , Aluminosilicate (ceramic fibers)

CANADA WHMIS: Ingredient Disclosure List: RCF (Aluminosilicate), Crystalline Silica, quartz -- Crystalline Silica, Tridymite -- Crystalline Silica, Cristobalite, Solvent Mixture 64742-47-8, Aluminum
 WHMIS Classification : RCF (Aluminosilicate) D2A , Solvent Mixture, B3, Crystalline Silica, quartz:, D2A, Aluminum B6

EUROPEAN UNION : Aluminosilicate (ceramic fibers): CLP 1B carcinogen, Crystalline Silica: CLP Carc.1A, Solvent 64742-47-8: CLP Asp Tox 1, Aluminum: CLP Flam Solid 1, Water React 2

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

NOTE: THIS PRODUCT IN ITS PURCHASED FORM DOES NOT PRESENT AN INHALATION HAZARD FROM FIBERS OR DUST AS IT IS A PUTTY-LIKE COMPOUND. FIBERS AND DUST ARE NOT AIRBORN UNDER NORMAL HANDLING.

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: | 1* | * See section 11 for chronic effects. |
| Flammability Hazard: | 1 | |
| Physical Hazard: | 1 | |

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.

Procedural Warning:

Attn: Technician

(For industrial use by professionally trained personnel only) When the compound is curing, vapors and gasses are given off and should be vented. Steps should be taken to insure that the injection pressure in conjunction with pressure that may occur from gassing off 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. Avoid contact with skin and eyes. 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 smoke and vapors being emitted from the compound during the heating/curing process. 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: C |