



# MATERIAL SAFETY DATA SHEET

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## Section 1: Product & Company Identification

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**Product Name:** FiberLock® Head Gasket & Block Repair

**Product Number (s):** 1224NZ

**Product Use:** Seals leaks in engine block

**Manufacturer / Supplier Contact Information:**

In United States:

CRC Industries, Inc.

885 Louis Drive

Warminster, PA 18974

[www.crcindustries.com](http://www.crcindustries.com)

1-215-674-4300(General)

(800) 521-3168 (Technical)

(800) 272-4620 (Customer Service)

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

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## Section 2: Hazards Identification

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**Emergency Overview**

**CAUTION:** Irritant.

Appearance & Odor: Beige fibrous liquid with a bland odor.

**Potential Health Effects:**

ACUTE EFFECTS:

EYE: Causes moderate irritation to the eyes.

SKIN: Causes mild to moderate irritation to the skin depending on duration of exposure.

INHALATION: Spray mist would be irritating to the respiratory system. Vapors are generally not harmful.

INGESTION: May cause irritation to the mouth, esophagus and stomach. May cause gastrointestinal discomfort.

CHRONIC EFFECTS: None known

TARGET ORGANS: For copper: liver, kidney and lungs

Medical Conditions Aggravated by Exposure: Unknown

See Section 11 for toxicology and carcinogenicity information on product ingredients.

**Product Name: FiberLock® Head Gasket & Block Repair**  
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### Section 3: Composition/Information on Ingredients

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| COMPONENT               | CAS NUMBER                      | % by Wt. |
|-------------------------|---------------------------------|----------|
| Water                   | 7732-18-5                       | 70 - 80  |
| Sodium silicate         | 1344-09-8 / 7732-18-5           | 10 - 20  |
| Glycol monobutyl ethers | 9038-95-3 / 143-22-6 / 111-76-2 | 3 - 8    |
| Copper flake            | 7440-50-8                       | < 1      |
| Aluminum paste          | 7429-90-5                       | < 1      |
| Kevlar®                 | 26125-61-1                      | < 1      |

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### Section 4: First Aid Measures

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**Eye Contact:** Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

**Skin Contact:** Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

**Inhalation:** Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

**Ingestion:** If swallowed, do NOT induce vomiting. Give victim a glass of water. Get medical attention immediately.

*Note to Physicians:* Treat symptomatically.

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### Section 5: Fire-Fighting Measures

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**Flammable Properties:** This product is not flammable.

Flash Point: None (TCC)  
Autoignition Temperature: None

Upper Explosive Limit: None  
Lower Explosive Limit: None

**Fire and Explosion Data:**

**Suitable Extinguishing Media:** This material will not burn. Use extinguishing media appropriate for the surrounding fire.

**Products of Combustion:** NA

**Explosion Hazards:** Containers, when exposed to heat from fire, may build pressure and rupture.

**Protection of Fire-Fighters:** Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

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### Section 6: Accidental Release Measures

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**Personal Precautions:** Use personal protection recommended in Section 8.

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**Environmental Precautions:** Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains. This product is harmful to aquatic life.

**Methods for Containment & Clean-up:** Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

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## **Section 7: Handling and Storage**

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**Handling Procedures:** Avoid contact with eyes, skin and clothing. Use gloves while handling material. Properly clean any spilled residue with a wet cloth. For product use instructions, please see the product label.

**Storage Procedures:** Store in a cool dry area out of direct sunlight. Store in a closed container. Do not store near acids.

**Aerosol Storage Level:** NA

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## **Section 8: Exposure Controls/Personal Protection**

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**Exposure Guidelines:**

| COMPONENT  | OSHA |      | ACGIH |      | OTHER |        | UNIT              |
|--|------|------|-------|------|-------|--------|-------------------|
|  | TWA  | STEL | TWA   | STEL | TWA   | SOURCE |                   |
| Water  | NE   | NE   | NE    | NE   | NE    |        |                   |
| Sodium silicate  | NE   | NE   | NE    | NE   | NE    |        |                   |
| Glycol monobutyl ethers  | 50   | NE   | 20    | NE   | NE    |        | ppm               |
| Copper flake   | 0.1* | NE   | 0.1*  | NE   | NE    |        | mg/m <sup>3</sup> |
| Aluminum paste   | 15*  | NE   | 0.1*  | NE   | NE    |        | mg/m <sup>3</sup> |
| Kevlar®  | NE   | NE   | NE    | NE   | 5     | mfr    | mg/m <sup>3</sup> |
| N.E. – Not Established                      (c) – ceiling      (s) – skin      (v) – vacated |      |      |       |      |       |        |                   |

mfr – Manufacturer's recommendation

\* Exposure values apply to dust or respirable fraction. These values would not apply to the liquid mixture product. These would only apply to this product if it were dried to a powder or residue.

**Controls and Protection:**

**Engineering Controls:** Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

**Respiratory Protection:** None required for normal work where adequate ventilation is provided. Use a self-contained breathing apparatus in confined spaces and for emergencies.

**Eye/face Protection:** For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

**Skin Protection:** Use protective gloves such as nitrile or neoprene. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

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## Section 9: Physical and Chemical Properties

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Physical State: fibrous liquid  
Color: beige  
Odor: bland  
Odor Threshold: ND  
Specific Gravity: 1.07  
Initial Boiling Point: 212°F / 100°C  
Freezing Point: 32°F / 0°C  
Vapor Pressure: ND  
Vapor Density: ND (air = 1)  
Evaporation Rate: slow  
Solubility: ND  
Coefficient of water/oil distribution: ND  
pH: 11.2  
Volatile Organic Compounds: wt %: 0.1      g/L: 1.1      lbs./gal: < 0.01

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## Section 10: Stability and Reactivity

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Stability: Stable  
Conditions to Avoid: None  
Incompatible Materials: Acids, ammonium salts  
Hazardous Decomposition Products: Hydrogen  
Possibility of Hazardous Reactions: No

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## Section 11: Toxicological Information

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Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

### Acute Toxicity:

| <u>Component</u>        | <u>Oral LD50 (rat)</u> | <u>Dermal LD50 (rabbit)</u> | <u>Inhalation LC50 (rat)</u> |
|-------------------------|------------------------|-----------------------------|------------------------------|
| Water                   | > 90 mL/kg             | No data                     | No data                      |
| Sodium silicate         | 1960 mg/kg             | > 4640 mg/kg                | No data                      |
| Glycol monobutyl ethers | 470 mg/kg              | 220 mg/kg                   | 450 ppm/4H                   |
| Copper flake            | No data                | No data                     | No data                      |
| Aluminum paste          | No data                | No data                     | No data                      |
| Kevlar®                 | No data                | No data                     | No data                      |

### Chronic Toxicity:

| <u>Component</u>        | <u>OSHA Carcinogen</u> | <u>IARC Carcinogen</u> | <u>NTP Carcinogen</u> | <u>Irritant</u>             | <u>Sensitizer</u> |
|-------------------------|------------------------|------------------------|-----------------------|-----------------------------|-------------------|
| Water                   | No                     | No                     | No                    | No                          | No                |
| Sodium silicate         | No                     | No                     | No                    | E & S (moderate) / R (mild) | Unknown           |
| Glycol monobutyl ethers | No                     | No                     | No                    | E (moderate) / S (mild)     | Unknown           |
| Copper flake            | No                     | No                     | No                    | E & S (mild) / R (moderate) | Unknown           |

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|                |    |    |    |                 |         |
|----------------|----|----|----|-----------------|---------|
| Aluminum paste | No | No | No | E, S & R (mild) | Unknown |
| Kevlar®        | No | No | No | E, S & R (mild) | No      |

E – Eye      S – Skin      R - Respiratory

Reproductive Toxicity: No information available  
Teratogenicity: No information available  
Mutagenicity: No information available  
Synergistic Effects: No information available

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## Section 12: Ecological Information

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Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity:            copper – 96 Hr LC50 water flea: 10 µg/L  
                             sodium silicate – 96 Hr LC50 water flea: 247 ppm  
Persistence / Degradability:        This material is not persistent in aquatic systems, but its high pH when undiluted is acutely harmful to aquatic life.  
Bioaccumulation / Accumulation:    No information available  
Mobility in Environment:            No information available

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## Section 13: Disposal Considerations

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**Waste Classification:** This product is not a RCRA hazardous waste. (See 40 CFR Part 261.20 – 261.33)  
Empty containers may be recycled. Wastes should be collected and properly disposed. Do not dump into bodies of water, on the ground or in a septic system.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

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## Section 14: Transport Information

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US DOT (ground):        Not Regulated  
ICAO/IATA (air):        Not Regulated  
IMO/IMDG (water):      Not Regulated  
Special Provisions:        None

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## Section 15: Regulatory Information

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**U.S. Federal Regulations:**

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients:    Copper (5000 lbs)

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**Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.**

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:

|                       |     |
|-----------------------|-----|
| Fire Hazard           | No  |
| Reactive Hazard       | No  |
| Release of Pressure   | No  |
| Acute Health Hazard   | Yes |
| Chronic Health Hazard | No  |

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Copper (< 1%), Glycol ethers (0.15%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

**U.S. State Regulations:**

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm:

Propylene oxide (< 4ppm)  
Ethylene oxide (< 0.3ppm)

Consumer Products VOC Regulations: This product is not regulated.

State Right to Know:

New Jersey: 7440-50-8, 7429-90-5, 111-76-2

Pennsylvania: 7440-50-8, 7429-90-5, 111-76-2

Massachusetts: 7440-50-8, 7429-90-5, 111-76-2

Rhode Island : 7440-50-8, 7429-90-5, 111-76-2

**Canadian Regulations:**

Controlled Products Regulations:

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulation and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: D1A, D1B, D2B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

**European Union Regulations:**

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

**Additional Regulatory Information:** None

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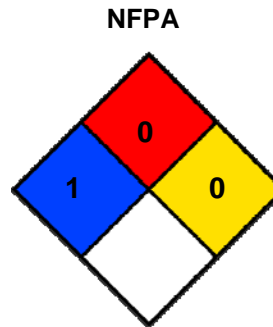
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## Section 16: Other Information

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| HMIS® (II)    |   |
|---------------|---|
| Health:       | 1 |
| Flammability: | 0 |
| Reactivity:   | 0 |
| PPE:          | B |



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick  
CRC #: 479  
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Changes since last revision: Section 9: freezing point

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Service  
CFR: Code of Federal Regulations  
DOT: Department of Transportation  
DSL: Domestic Substance List  
g/L: grams per Liter  
HMIS: Hazardous Materials Identification System  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods  
IMO: International Maritime Organization  
lbs./gal: pounds per gallon  
LC: Lethal Concentration  
LD: Lethal Dose

NA: Not Applicable  
ND: Not Determined  
NIOSH: National Institute of Occupational Safety & Health  
NFPA: National Fire Protection Association  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PMCC: Pensky-Martens Closed Cup  
PPE: Personal Protection Equipment  
ppm: Parts per Million  
RoHS: Restriction of Hazardous Substances  
STEL: Short Term Exposure Limit  
TCC: Tag Closed Cup  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Information System