

Ergon Armor **Revision Number:** 3.000
Issue Date: 06/11/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: FLEXJOINT® U500 JOINT SEALANT ID(s):
 - Part B

Product type: Resin component of 2-part polyurea elastomer joint filler **Region:** United States

Company address: Corrosion Engineering
 10000 W. 16th Ave., Suite 100, Denver, CO 80202
 Phone: 303.751.1111 **Contact information:**
 Internet: www.corrosion-engineering.com
 Emergency: Call CHEMTREC at 800.424.9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

| | | |
|---|----------------------|--------------------|
| Physical state: Liquid | HMIS: | |
| Color: Gray or color of pigment additive | HEALTH: | 3 |
| Odor: Slight ammonia odor | FLAMMABILITY: | 1 |
| | PHYSICAL HAZARD: | 0 |
| | Personal Protection: | See MSDS section 8 |

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe
 * = Chronic Health Hazard

WARNING!
 CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
 MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.

Relevant routes of exposure: Inhalation, Ingestion, Skin Contact, Eye Contact

Potential Health Effects

- Inhalation:** May cause nausea and respiratory tract irritation. May cause respiratory sensitization in susceptible individuals.
- Skin contact:** Slight skin irritation. May cause swelling and redness.
- Eye contact:** Mild eye irritant. Vapors slightly uncomfortable. Splashes irritation and painful.
- Ingestion:** Moderately toxic, causes abdominal cramps, nausea, swelling.
- Acute health hazards:** Acute ingestion causes burning of the mouth, throat, and stomach with abdominal pain. Acute inhalation of vapors and mist can cause nasal discharge and pain in the eyes.
- Chronic health hazards:** If misted or at high concentrations, may cause pallor, nausea, anesthetic or narcotic effects.
- Existing conditions aggravated by exposure:** Skin and eye sensitization. Depending on individual skin sensitivity, chronic or prolonged exposure may result in irritation, blistering, burning and peeling of skin layers.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Hazardous components | CAS-No. | % |
|--|----------------|----------|
| Polyoxyalkyleneamine | 9046-10-0 | |
| N,N-Dialkyamino-diphenylmethane | 5285-60-9 | |
| gamma-Glycidoxypropyltrimethylsiloxane | 2530-83-8 | |
| Pigment Dispersion | NA | |
| Alkali-aluminosilicate | NA | |

4. FIRST AID MEASURES

- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Skin contact:** Remove from skin immediately. Rinse with clean water for 20-30 minutes. Use soapy water if needed. If redness, itching, or a burning sensation develops, seek medical attention.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, seek medical attention.
- Ingestion:** Do NOT induce vomiting. Dilute with water and seek medical attention immediately. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

5. FIRE FIGHTING MEASURES

- Flash point:** > 200°F (Pensky-Marten Closed)
- Autoignition temperature:** NE
- Flammable/Explosive limits - lower:** NE
- Flammable/Explosive limits - upper:** NE
- Extinguishing media:** Use foam, carbon dioxide, dry chemical or water fog.
- Special firefighting procedures:** *Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.*
- Unusual fire or explosion hazards:** Closed containers may rupture due to build-up of pressure when exposed to extreme heat.
- Hazardous combustion products:** NE

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

- Accidental release measures:** Standard hydrocarbon spill procedures apply to this product.
Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

7. HANDLING AND STORAGE

Handling: Prevent all skin and eye contact. Avoid breathing vapors. Re-seal partially used containers. Wash with soap and water before eating or drinking. Protect from moisture contamination. Exothermic generation of carbon dioxide may cause dangerous pressure.

Storage: Keep away from all ignitable sources as well as extreme heat.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

| Hazardous components | ACGIH TLV | OSHA PEL | AIHA WEEL | OTHER |
|--|-----------|----------|-----------|-------|
| Polyoxyalkyleneamine | NE | NE | NE | NE |
| N,N-Dialkylamino-diphenylmethane | NE | NE | NE | NE |
| gamma-Glycidoxypropyltrimethylsiloxane | NE | NE | NE | NE |
| Pigment Dispersion | NE | 10mg/m3 | NE | NE |
| Alkali-aluminosilicate | 10mg/m3 | 6mg/m3 | NE | NE |

Engineering controls: Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (listed above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Respiratory protection: Avoid breathing vapor. When airborne exposure limits are exceeded (see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Eye/face protection: Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment available.

Skin protection: Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------------------|-----------------------------------|
| Physical state: | Liquid |
| Color: | Gray or color of pigment additive |
| Odor: | Slight ammonia odor |
| Odor threshold: | NE |
| pH: | NE |
| Vapor pressure: | NE |
| Boiling point/range: | NE |
| Melting point/ range: | NE |
| Specific gravity (water = 1): | 1.05 |

Vapor density: NE
Flash point: > 200°F (Pensky-Marten Closed)
Flammable/Explosive limits - lower: NE
Flammable/Explosive limits - upper: NE
Autoignition temperature: NE
Evaporation rate (Butyl Acetate = 1): Slower than
Solubility in water: 1-10%
Partition coefficient (n-octanol/water): NE
VOC content: 0%

10. STABILITY AND REACTIVITY

Stability: This material is chemically stable under normal and anticipated storage and handling conditions.

Hazardous polymerization: Will not occur under normal circumstances.

Hazardous decomposition products: Carbon dioxide, carbon monoxide, nitrogen oxides.

Incompatibility: Avoid strong oxidizers, acids.

Conditions to avoid: Avoid incompatible reactants, especially strong bases, water or temperatures over 160°C (320°F) .

11. TOXICOLOGICAL INFORMATION

Toxicological Information

Data available for this material and/or its components are summarized below:

General Product Information:

No information available for the product or its components.

Cancer Lists

| Hazardous components | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen |
|--|----------------|-----------------|-----------------|
| Polyoxyalkyleneamine | No | No | No |
| N,N-Dialkylamino-diphenylmethane | No | No | No |
| gamma-Glycidoxypropyltrimethylsiloxane | No | No | No |
| Pigment Dispersion | No | No | No |
| Alkali-aluminosilicate | No | No | No |

Health Effects

| Hazardous components | Health Effects / Target Organs |
|--|--------------------------------|
| Polyoxyalkyleneamine | NE |
| N,N-Dialkylamino-diphenylmethane | NE |
| gamma-Glycidoxypropyltrimethylsiloxane | NE |
| Pigment Dispersion | NE |
| Alkali-aluminosilicate | NE |

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Data available for this material and/or its components are summarized below:

General Product Information:

No information available for the product or its components.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of in an approved landfill if allowed locally. Dispose of in a permitted waste management facility if landfill is not practical.

Recover, reclaim or recycle when practical. Dispose of in accordance with federal, state and local regulations. Empty containers retain product residue. Note: Chemical additions to, processing of, or otherwise altering this material may render information in this document to be incomplete, inaccurate or otherwise inappropriate for waste management purposes. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Disposal Regulatory No EPA Waste Numbers are applicable for this product's components.
It is the responsibility of the waste generator to determine if the waste meets the definition of a hazardous waste as promulgated at 40 CFR Part 261 subpart C.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

SARA 311/312: Acute hazard
Chronic hazard

Applicable component data listed below:

TSCA 12(b) Export Notification None listed

CERCLA/SARA Section 302 EHS None listed

Section 304 EHS RQ None listed

CLCRA RQ None listed

Section 313 None listed

RCRA CODE None listed

CAA 1129(r) TQ None listed

State Regulations None listed

California Proposition 65

This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity:

None listed

Canada Regulatory Information

| | WHMIS Status | Hazard class(s) |
|--|---------------------|------------------------|
| Polyoxyalkyleneamine | Not listed | |
| N,N-Dialkylamino-diphenylmethane | Not listed | |
| gamma-Glycidoxypropyltrimethylsiloxane | Not listed | |
| Pigment Dispersion | Not listed | |
| Alkali-aluminosilicate | Not listed | |

16. OTHER INFORMATION

Revision Information

Revision Date: 4/15/2011
Supersedes Revision Dated: 11/3/2007
Revision Number: 3.000
Revision Summary: New format

Key: NE = Not Established, NA = Not Applicable

State Lists reviewed (Sec. 15):

CA Title 8, §339. The Hazardous Substances List
NJ Right to Know Hazardous Substance List
PA Chapter 323. Hazardous Substance List
RI Rhode Island Hazardous Substance List
NY Part 597: List of Hazardous Substances
MA Massachusetts Oil and Hazardous Material List
MN 5206.400 Hazardous Substances

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