



GEOGARD SEAM SEALER 5 GAL

Version 2.
 REVISION DATE: 06/29/2009

Print Date 07/07/2009

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : GEOGARD SEAM SEALER 5 GAL
 Product code : 49205

COMPANY : Republic Powdered Metals
 2628 Pearl Road
 Medina, OH 44256

Telephone : (800) 551-7081
 Emergency Phone: : 1-800-551-7081
 After Hours: Chemtrec 1-800-424-9300

Product use : Sealant

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

Aluminum/Gray. Non-sag gunnable paste. May cause slight irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue. May cause allergic respiratory sensitization. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel.

Acute Potential Health Effects/ Routes of Entry

Inhalation : May cause slight irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue. May cause allergic respiratory sensitization.

Eyes : Direct contact may cause mild irritation.

Ingestion : May cause gastrointestinal irritation, nausea, and vomiting.

Skin : May cause sensitization resulting in irritation, itching and redness.

Aggravated Medical Conditions

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Overexposure may cause dermatitis, asthma, skin and respiratory sensitization and decreased lung function. Prolonged or repeated exposure to xylene may cause defatting, drying, and irritation of the skin, dermatitis, central nervous system (CNS) effects, heart muscle sensitization and arrhythmia, hearing loss, and brain, liver, kidney damage. Xylene overexposure may affect fetal development. Prolonged or repeated contact/exposure to aromatic petroleum distillates may cause defatting, drying, and irritation of the skin, dermatitis, and central nervous system (CNS) effects. Inhalation of crystalline silica (quartz) can cause cancer based on animal data, and IARC concludes sufficient evidence in humans (Group 1). Prolonged and repeated overexposure to free crystalline silica dust above the TLV level may cause scarring of the lungs with cough and shortness of breath. A delayed lung injury, silicosis may result from breathing free silica. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in

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exposed humans. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Target Organs: Skin, Eye, Ingestion, Lung

SECTION 3 - PRODUCT COMPOSITION

| Chemical Name | CAS-No. | Weight % |
|--|------------------------|-------------|
| Aromatic Polyisocyanate Resin | NJTSRN# 51721300-5336P | 15.0 - 40.0 |
| Tackifier | NJTSRN# 51721300-5272P | 15.0 - 40.0 |
| Calcium Carbonate (Limestone) | 1317-65-3 | 10.0 - 30.0 |
| Clay | 1332-58-7 | 7.0 - 13.0 |
| Xylene | 1330-20-7 | 3.0 - 7.0 |
| Aromatic petroleum distillates | 64742-95-6 | 3.0 - 7.0 |
| Titanium dioxide | 13463-67-7 | 3.0 - 7.0 |
| Thickener | NJTSRN# 51721300-5300P | 3.0 - 7.0 |
| Aluminum | 7429-90-5 | 1.0 - 5.0 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 1.0 - 5.0 |
| Ethylbenzene | 100-41-4 | 1.0 - 5.0 |
| Trimethyl benzene (mixed isomers) | 25551-13-7 | 1.0 - 5.0 |
| Crystalline Silica (Quartz)/ Silica Sand | 14808-60-7 | - <1.0 |

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

| | | |
|--------------|---|--|
| Inhalation | : | Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. |
| Eye contact | : | Flush with water for at least 15 minutes while holding eye lids apart. Get medical attention immediately. |
| Skin contact | : | Clean area of contact thoroughly using soap and water. If irritation, rash or other disorders develop, get medical attention immediately. |
| Ingestion | : | Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately. |

SECTION 5 - FIRE FIGHTING MEASURES

| | | |
|--------------------------|---|--|
| Flash point | : | 119 F, 48 °C |
| Method | : | Setaflash Closed Cup |
| Lower explosion limit | : | Not available. |
| Upper explosion limit | : | Not available. |
| Autoignition temperature | : | Not available. |
| Extinguishing media | : | If water fog is ineffective, use carbon dioxide, dry chemical or foam. |



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- Hazardous combustion products : Carbon monoxide and carbon dioxide can form. Hydrocyanic acid and nitrogen oxides can form.
- Protective equipment for firefighters : Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Scrape up and transfer to appropriate container for disposal.

SECTION 7 - HANDLING AND STORAGE

Prevent inhalation of vapor, ingestion and contact with skin, eyes and clothing. Preferably use entire contents in one continuous work session. Do not smoke, weld, generate sparks, or use flame near container. Change soiled work clothes frequently. Clean hands thoroughly after handling. Do not store or use near food. Keep container closed when not in use. Since emptied containers retain product residue and vapor, observe precautions even after container is emptied. Store under dry warehouse conditions away from heat and all ignition sources.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment

- Respiratory protection : Wear appropriate, properly fitted NIOSH/MSHA approved organic vapor or supplied air respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Follow manufacturer's directions for respirator use.
- Hand protection : Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.
- Eye protection : Wear appropriate eye protection. Use safety glasses if eye contact is likely.
- Skin and body protection : Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.
- Protective measures : Use professional judgment in the selection, care, and use.
- Engineering measures : Use general ventilation and/ or local exhaust to reduce the airborne contaminant concentration below the exposure limit listed in the MSDS

Exposure Limits

| <u>Chemical Name</u> | <u>CAS Number</u> | <u>Regulation</u> | <u>Limit</u> | <u>Form</u> |
|----------------------------------|-------------------|-------------------|--------------|-----------------------|
| Calcium Carbonate (Limestone) | 1317-65-3 | OSHA PEL: | 5 mg/m3 | Respirable fraction. |
| | | OSHA PEL: | 15 mg/m3 | Total dust. |
| | | ACGIH TWA: | 3 mg/m3 | Respirable particles. |
| | | ACGIH TWA: | 10 mg/m3 | Inhalable particles. |
| | | OSHA TWA: | 15 mg/m3 | Total dust. |
| | | OSHA TWA: | 5 mg/m3 | Respirable fraction. |



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| Chemical Name | CAS Number | Regulation | Limit | Form |
|--|-------------------|--|--|--|
| Clay | 1332-58-7 | ACGIH TWA: OSHA PEL: OSHA PEL: OSHA TWA: OSHA TWA: | 2 mg/m3 15 mg/m3 5 mg/m3 15 mg/m3 5 mg/m3 | Respirable fraction. Total dust. Respirable fraction. Total dust. Respirable fraction. |
| Xylene | 1330-20-7 | ACGIH TWA: ACGIH STEL: OSHA PEL: | 100 ppm 150 ppm 435 mg/m3 | |
| Titanium dioxide | 13463-67-7 | ACGIH TWA: OSHA PEL: OSHA TWA: OSHA TWA: | 10 mg/m3 15 mg/m3 15 mg/m3 5 mg/m3 | Total dust. Total dust. Respirable fraction. |
| Aluminum | 7429-90-5 | OSHA PEL: OSHA PEL: OSHA TWA: OSHA TWA: ACGIH TWA: | 15 mg/m3 5 mg/m3 15 mg/m3 5 mg/m3 1 mg/m3 | Total dust.as Al Respirable dust.as Al Total dust. Respirable fraction. Respirable fraction. |
| 1,2,4-Trimethylbenzene | 95-63-6 | ACGIH TWA: | 25 ppm | |
| Ethylbenzene | 100-41-4 | ACGIH TWA: ACGIH STEL: OSHA PEL: | 100 ppm 125 ppm 435 mg/m3 | |
| Trimethyl benzene (mixed isomers) | 25551-13-7 | ACGIH TWA: | 25 ppm | |
| Crystalline Silica (Quartz)/ Silica Sand | 14808-60-7 | OSHA TWA: OSHA TWA: OSHA PEL: OSHA PEL: ACGIH TWA: | 0.1 mg/m3 0.3 mg/m3 15 mg/m3 5 mg/m3 0.025 mg/m3 | Respirable. Total dust. Total dust. Respirable fraction. Respirable fraction. |

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form : Non-sag gunnable paste
 Color : Aluminum/Gray
 Odor : Petroleum Solvent
 pH : Not available.
 Vapour pressure : Not available.
 Vapor density : Heavier than air
 Melting point/range : Not available.



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Freezing point : Not available.
 Boiling point/range : > 250 °F, > 121 °C
 Water solubility : Insoluble
 Specific Gravity : 1.195
 % Volatile Weight : 16 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid : Amines. Water or moisture and oxidizing agents. Alcohols. Strong acids. Strong bases.
 Stability : Material is stable under normal storage, handling, and use.
 Hazardous polymerization : Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Xylene, CAS-No.: 1330-20-7
 Acute oral toxicity (LD-50 oral) 4,300 mg/kg (Rat) 1,590 mg/kg (Mouse) 6,670 mg/kg (Rat) 3,523 - 8,600 mg/kg (Rat) 5,627 mg/kg (Mouse)
 Acute inhalation toxicity (LC-50) 6,350 mg/l for 4 h (Rat) 3,907 mg/l for 6 h (Mouse) 8,000 mg/l for 4 h (Rat)

Ethylbenzene, CAS-No.: 100-41-4
 Acute oral toxicity (LD-50 oral) 5,460 mg/kg (Rat) 3,500 mg/kg (Rat)
 Acute dermal toxicity (LD-50 dermal) 17,800 mg/kg (Rabbit)

Trimethyl benzene (mixed isomers), CAS-No.: 25551-13-7
 Acute oral toxicity (LD-50 oral) 8,970 mg/kg (Rat)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Class : D001: Reportable Quantity = 100 lbs. (Characteristic of ignitability)
 This classification applies only to the material as it was originally produced.

Disposal Method : Waste not regulated under RCRA. Dispose of in compliance with state and local regulations.



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SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:

NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

North American Inventories:

All components are listed or exempt from the TSCA inventory.
This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:

| | | | |
|---------------------|---|------------------------|-----------|
| SARA 313 Components | : | Xylene | 1330-20-7 |
| | | Aluminum | 7429-90-5 |
| | | 1,2,4-Trimethylbenzene | 95-63-6 |
| | | Ethylbenzene | 100-41-4 |

SARA 311/312 Hazards : Acute Health Hazard
Fire Hazard

OSHA Hazardous Components :

| | |
|--|------------|
| Calcium Carbonate (Limestone) | 1317-65-3 |
| Clay | 1332-58-7 |
| Xylene | 1330-20-7 |
| Titanium dioxide | 13463-67-7 |
| Aluminum | 7429-90-5 |
| 1,2,4-Trimethylbenzene | 95-63-6 |
| Ethylbenzene | 100-41-4 |
| Trimethyl benzene (mixed isomers) | 25551-13-7 |
| Crystalline Silica (Quartz)/ Silica Sand | 14808-60-7 |

OSHA Status: Considered : Irritant
hazardous based on the Sensitizer
following criteria:

OSHA Flammability : II

Regulatory VOC (less water and : 194 g/l
exempt solvent)

VOC Method 310 : 16 %

Chemical is listed as an IARC, NTP, OSHA, or ACGIH Carcinogen:
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7

U.S. State Regulations:

MASS RTK Components : Calcium Carbonate (Limestone) 1317-65-3

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| | |
|-----------------------------------|------------|
| Clay | 1332-58-7 |
| Xylene | 1330-20-7 |
| Titanium dioxide | 13463-67-7 |
| Aluminum | 7429-90-5 |
| 1,2,4-Trimethylbenzene | 95-63-6 |
| Ethylbenzene | 100-41-4 |
| Trimethyl benzene (mixed isomers) | 25551-13-7 |

| | | | |
|---------------------|-----------------------------------|--------------------------------|------------------------|
| Penn RTK Components | : | Aromatic Polyisocyanate Resin | NJTSRN# 51721300-5336P |
| | | Tackifier | NJTSRN# 51721300-5272P |
| | | Calcium Carbonate (Limestone) | 1317-65-3 |
| | | Clay | 1332-58-7 |
| | | Xylene | 1330-20-7 |
| | | Aromatic petroleum distillates | 64742-95-6 |
| | | Titanium dioxide | 13463-67-7 |
| | | Thickener | NJTSRN# 51721300-5300P |
| | | Aluminum | 7429-90-5 |
| | | 1,2,4-Trimethylbenzene | 95-63-6 |
| | | Ethylbenzene | 100-41-4 |
| | Trimethyl benzene (mixed isomers) | 25551-13-7 | |

| | | | |
|-------------------|---|--|------------------------|
| NJ RTK Components | : | Aromatic Polyisocyanate Resin | NJTSRN# 51721300-5336P |
| | | Tackifier | NJTSRN# 51721300-5272P |
| | | Calcium Carbonate (Limestone) | 1317-65-3 |
| | | Clay | 1332-58-7 |
| | | Xylene | 1330-20-7 |
| | | Ethylbenzene | 100-41-4 |
| | | Crystalline Silica (Quartz)/ Silica Sand | 14808-60-7 |

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm:

| | |
|------------|--|
| 100-41-4 | Ethylbenzene |
| 14808-60-7 | Crystalline Silica (Quartz)/ Silica Sand |
| 108-88-3 | Toluene |
| 584-84-9 | 2,4-Toluene diisocyanate |
| 91-08-7 | Toluene-2,6-Diisocyanate |
| 91-20-3 | Naphthalene |
| 71-43-2 | Benzene |

SECTION 16 - OTHER INFORMATION

HMIS Rating :

| | |
|--------------|---|
| Health | 2 |
| Flammability | 2 |
| Reactivity | 1 |
| PPE | |

0 = Minimum
1 = Slight
2 = Moderate
3 = Serious
4 = Severe



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Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

Prepared by: Rich Mikol

Legend

ACGIH - American Conference of Governmental Hygienists

NTP - National Toxicology Program

DOT - Department of Transportation

DSL - Domestic Substance List

EPA - Environmental Protection Agency

HMIS - Hazardous Materials Information System

IARC - International Agency for Research on Cancer

MSHA - Mine Safety Health Administration

NDSL - Non-Domestic Substance List

NIOSH - National Institute for Occupational Safety and Health

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit

RCRA - Resource Conservation and Recovery Act

RTK - Right To Know

SARA - Superfund Amendments and Reauthorization Act

STEL - Short Term Exposure Limit

TLV - Threshold Limit Value

TSCA - Toxic Substances Control Act

TWA - Time Weighted Average

V - Volume

VOC - Volatile Organic Compound

WHMIS - Workplace Hazardous Materials Information System