

SAFETY DATA SHEET

1. Identification

Material name: PERMAROOF GWS LIMESTONE 4.5 GL
Material: 974805R805

Recommended use and restriction on use

Recommended use: Sealant
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S. Roofing
3735 Green Road
Cleveland OH 44122
US

Contact person: EH&S Department
Telephone: 216-292-5000
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids Category 4

Health Hazards

Carcinogenicity Category 2
Toxic to reproduction Category 2

Unknown toxicity - Health

Acute toxicity, oral 43.65 %
Acute toxicity, dermal 44.58 %
Acute toxicity, inhalation, vapor 99.86 %
Acute toxicity, inhalation, dust or mist 99.62 %

Unknown toxicity - Environment

Acute hazards to the aquatic environment 75.13 %
Chronic hazards to the aquatic environment 100 %

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: Combustible liquid.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.

Precautionary Statement:
Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response: If exposed or concerned: Get medical advice/attention. In case of fire: Use ... to extinguish.

Storage: Store in well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

| Chemical Identity | CAS number | Content in percent (%)* |
|-------------------------------|------------|-------------------------|
| Calcium Carbonate (Limestone) | 1317-65-3 | 15 - 40% |
| Calcium carbonate | 471-34-1 | 7 - 13% |
| Stearic acid | 57-11-4 | 1 - 5% |
| Titanium dioxide | 13463-67-7 | 0.5 - 1.5% |
| Octamethylcyclotetrasiloxane | 556-67-2 | 0.1 - 1% |

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion: Rinse mouth thoroughly.

Inhalation: Move to fresh air.

Skin Contact: Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

Eye contact: Rinse immediately with plenty of water.

Most important symptoms/effects, acute and delayed

Symptoms: Respiratory tract irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: Move containers from fire area if you can do so without risk.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities:

Store locked up. Store in a well-ventilated place. Store in a cool place.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

| Chemical Identity | type | Exposure Limit Values | Source |
|--|------|-----------------------|---|
| Calcium Carbonate (Limestone) - Total dust. | PEL | 15 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Calcium Carbonate (Limestone) - Respirable fraction. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Calcium carbonate - Total dust. | PEL | 15 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Calcium carbonate - Respirable fraction. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Stearic acid | TWA | 10 mg/m3 | US. ACGIH Threshold Limit Values (2011) |
| Titanium dioxide | TWA | 10 mg/m3 | US. ACGIH Threshold Limit Values (2011) |
| Titanium dioxide - Total dust. | PEL | 15 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |

| Chemical name | type | Exposure Limit Values | Source |
|---|------|-----------------------|---|
| Calcium Carbonate (Limestone) - Total dust. | STEL | 20 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| | TWA | 10 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |

| | | | |
|--|-------|----------------------|---|
| Calcium Carbonate (Limestone) - Respirable fraction. | TWA | 3 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Calcium Carbonate (Limestone) - Total dust. | TWA | 10 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Calcium carbonate - Total dust. | STEL | 20 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Calcium carbonate - Respirable fraction. | TWA | 3 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
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| Calcium carbonate - Total dust. | TWA | 10 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Stearic acid | TWA | 10 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Stearic acid | TWAEV | 10 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Titanium dioxide - Total dust. | TWA | 10 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Titanium dioxide - Respirable fraction. | TWA | 3 mg/m ³ | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Titanium dioxide | TWAEV | 10 mg/m ³ | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Titanium dioxide - Total dust. | TWA | 10 mg/m ³ | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |

Appropriate Engineering Controls Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: Wear goggles/face shield.

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: No data available.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

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| 9. Physical and chemical properties |
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Appearance

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| Physical state: | liquid |
| Form: | Paste |
| Color: | Gray |
| Odor: | Mild pungent |
| Odor threshold: | No data available. |
| pH: | No data available. |
| Melting point/freezing point: | No data available. |
| Initial boiling point and boiling range: | No data available. |
| Flash Point: | 71 °C 160 °F (Setaflash Closed Cup) |
| Evaporation rate: | Slower than Ether |
| Flammability (solid, gas): | No |
| Upper/lower limit on flammability or explosive limits | |
| Flammability limit - upper (%): | No data available. |
| Flammability limit - lower (%): | No data available. |
| Explosive limit - upper (%): | No data available. |
| Explosive limit - lower (%): | No data available. |
| Vapor pressure: | No data available. |
| Vapor density: | Vapors are heavier than air and may travel along the floor and in the bottom of containers. |
| Relative density: | 1.35 |
| Solubility(ies) | |
| Solubility in water: | Insoluble in water |
| Solubility (other): | No data available. |
| Partition coefficient (n-octanol/water): | No data available. |

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|-----------------------------------|--------------------|
| Auto-ignition temperature: | No data available. |
| Decomposition temperature: | No data available. |
| Viscosity: | No data available. |

10. Stability and reactivity

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|--|---|
| Reactivity: | No data available. |
| Chemical Stability: | Material is stable under normal conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Heat, sparks, flames. |
| Incompatible Materials: | Epoxides. Avoid contact with acids and oxidizing substances. Isocyanates. |
| Hazardous Decomposition Products: | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |

11. Toxicological information**Information on likely routes of exposure**

| | |
|----------------------|---|
| Ingestion: | May be ingested by accident. Ingestion may cause irritation and malaise. |
| Inhalation: | In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes. |
| Skin Contact: | Moderately irritating to skin with prolonged exposure. |
| Eye contact: | Eye contact is possible and should be avoided. |

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

| | |
|---|-------------------------|
| Oral Product: | No data available. |
| Dermal Product: | ATEmix: 10,649.46 mg/kg |
| Inhalation Product: | No data available. |
| Repeated dose toxicity Product: | No data available. |
| Skin Corrosion/Irritation Product: | No data available. |

Specified substance(s):

| | |
|------------------------------|---|
| Calcium carbonate | in vivo (Rabbit): Experimental result, Key study |
| Stearic acid | in vivo (Rabbit): Experimental result, Key study |
| Titanium dioxide | in vivo (Rabbit): Experimental result, Supporting study |
| Octamethylcyclotetrasiloxane | in vivo (Rabbit): Experimental result, Key study |

Serious Eye Damage/Eye Irritation**Product:** No data available.**Specified substance(s):**

| | |
|-------------------|---|
| Calcium carbonate | in vivo (Rabbit, 24 - 72 hrs): Not irritating |
| Stearic acid | in vivo (Rabbit, 27 - 72 hrs): Not irritating |
| Titanium dioxide | in vivo (Rabbit, 24 hrs): Not irritating |

Respiratory or Skin Sensitization**Product:** No data available.**Carcinogenicity****Product:** Suspected of causing cancer.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Titanium dioxide Overall evaluation: Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

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| 12. Ecological information |
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Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Calcium carbonate LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): > 56,000 mg/l Mortality

Octamethylcyclotetrasiloxane LC 50 (Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), 14 d): 0.0085 - 0.013 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Titanium dioxide ED 0 (*Phoxinus phoxinus*, 30 d): \geq 1,000 mg/l Experimental result, Supporting study
LC 10 (*Oncorhynchus mykiss*, 28 d): 0.981 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
LC 50 (*Oncorhynchus mykiss*, 28 d): 7.31 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
LC 1 (*Oncorhynchus mykiss*, 28 d): 0.191 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
LC 0 (*Coregonus autumnalis migratorius* G., 30 d): 3 mg/l Experimental result, Supporting study

Octamethylcyclotetrasiloxane NOAEL (*Oncorhynchus mykiss*, 93 d): \geq 4.4 μ g/l Experimental result, Key study
LC 50 (*Oncorhynchus mykiss*, 96 h): > 23 μ g/l Experimental result, Supporting study
NOAEL (*Oncorhynchus mykiss*, 18 d): < 23 μ g/l Experimental result,

Supporting study
LC 80 (Oncorhynchus mykiss, 18 d): 23 µg/l Experimental result, Supporting study
NOAEL (Oncorhynchus mykiss, 18 d): >= 31 µg/l Experimental result, Supporting study

**Aquatic Invertebrates
Product:**

No data available.

**Toxicity to Aquatic Plants
Product:**

No data available.

Persistence and Degradability

**Biodegradation
Product:**

No data available.

**BOD/COD Ratio
Product:**

No data available.

Bioaccumulative Potential

**Bioconcentration Factor (BCF)
Product:**

No data available.

Specified substance(s):

Octamethylcyclotetrasiloxane Fathead minnow (Pimephales promelas), Bioconcentration Factor (BCF): 3,800 - 4,200 (Flow through)

**Partition Coefficient n-octanol / water (log Kow)
Product:**

No data available.

**Specified substance(s):
Stearic acid**

Log Kow: 8.23

Mobility in Soil:

No data available.

Other Adverse Effects:

No data available.

13. Disposal considerations

Disposal instructions:

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging:

No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information**US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Toluene | 1000 lbs. |
| 2-Butylamine | 1000 lbs. |
| Cyclohexylamine | 100 lbs. |

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Fire Hazard

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

| <u>Chemical Identity</u> | <u>Reportable quantity</u> | <u>Threshold Planning Quantity</u> |
|--------------------------|----------------------------|------------------------------------|
| Cyclohexylamine | 10000 lbs. | 10000 lbs. |

SARA 304 Emergency Release Notification

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Toluene | 1000 lbs. |
| 2-Butylamine | 1000 lbs. |
| Cyclohexylamine | 100 lbs. |
| Copper phthalocyanine | |

SARA 311/312 Hazardous Chemical

| <u>Chemical Identity</u> | <u>Threshold Planning Quantity</u> |
|----------------------------------|------------------------------------|
| Cyclohexylamine | 500lbs |
| Calcium Carbonate (Limestone) | 500 lbs |
| Calcium carbonate | 500 lbs |
| Stearic acid | 500 lbs |
| Titanium dioxide | 500 lbs |
| Octamethylcyclotetrasiloxane | 500 lbs |

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Cyclohexylamine | 15000 lbs |

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

| <u>Chemical Identity</u> |
|-------------------------------|
| Calcium Carbonate (Limestone) |
| Calcium carbonate |

US. Massachusetts RTK - Substance List

| <u>Chemical Identity</u> |
|--|
| Calcium Carbonate (Limestone) |
| Calcium carbonate |
| Cyclohexylamine |
| Crystalline Silica (Quartz)/ Silica Sand |

US. Pennsylvania RTK - Hazardous Substances

| <u>Chemical Identity</u> |
|-------------------------------|
| Calcium Carbonate (Limestone) |
| Calcium carbonate |

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:

| | |
|--|--------|
| Regulatory VOC (less water and exempt solvent): | 1 g/l |
| VOC Method 310: | 0.07 % |

Inventory Status:

Australia AICS:

One or more components in this product are

| | |
|--|--|
| | not listed on or exempt from the Inventory. |
| Canada DSL Inventory List: | All components in this product are listed on or exempt from the Inventory. |
| EINECS, ELINCS or NLP: | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan (ENCS) List: | One or more components in this product are not listed on or exempt from the Inventory. |
| China Inv. Existing Chemical Substances: | One or more components in this product are not listed on or exempt from the Inventory. |
| Korea Existing Chemicals Inv. (KECI): | One or more components in this product are not listed on or exempt from the Inventory. |
| Canada NDSL Inventory: | One or more components in this product are not listed on or exempt from the Inventory. |
| Philippines PICCS: | One or more components in this product are not listed on or exempt from the Inventory. |
| US TSCA Inventory: | All components in this product are listed on or exempt from the Inventory. |
| New Zealand Inventory of Chemicals: | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan ISHL Listing: | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan Pharmacopoeia Listing: | One or more components in this product are not listed on or exempt from the Inventory. |

16. Other information, including date of preparation or last revision**Revision Date:** 03/31/2016**Version #:** 1.1**Further Information:** No data available.**Disclaimer:** 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.

