

# SAFETY DATA SHEET

## PERMACOOL HT



### SECTION 1 IDENTIFICATION

<b>Product Name</b>	PermaCool HT
<b>Product Identifier</b>	Acrylic Roof Coating
<b>Restrictions</b>	None
<b>Manufacturer</b>	Performance Roof Systems
<b>Address</b>	4821 Chelsea Avenue Kansas City, MO 64130
<b>Phone Number</b>	(800) 727-9872
<b>Emergency Number</b>	(800) 424-9300 (CHEMTREC)

### SECTION 2 HAZARDS

<b>GHS Classification</b>	Skin Sensitization: Category 1 Carcinogenicity: Category 2 Acute Aquatic Toxicity - Category 3 Chronic aquatic toxicity - Category 4
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#### Hazard Pictographs



#### Signal Word

**WARNING**

#### Hazard Statements

H317 - May cause an allergic skin reaction  
H351 - Suspected of causing cancer  
H402 - Harmful to aquatic life  
H413 - May cause long lasting harmful effects to aquatic life

#### Precautionary Statements

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P233 - Keep container tightly closed  
P261 - Avoid breathing vapors  
P362 - Take off contaminated clothing and wash before reuse  
P264 - Wash hands, forearms and face thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only out doors or in a well-ventilated area  
P273 - Avoid release into the environment  
P280 - Wear protective gloves/eye protection/face protection  
P391 - Collect Spillage

#### Response

P301+P330+P331 - If swallowed: Rinse mouth; Do Not induce vomiting  
P303+P361+P353 - If on skin (or hair), Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340+P312 - If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.  
P305+P351+P338 - If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

ABBREVIATION KEY

GHS = Global Harmonized System

STOT = Specific Target Organ Toxicity

## SECTION 2 HAZARDS

<b>Response</b>	<p>P332+P313 - If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 - If eye irritation persists: Get medical advice/ attention.</p> <p>P370+P378 - In case of fire: Use carbon dioxide (CO<sub>2</sub>), foam, dry extinguishing powder to extinguish</p>
<b>Storage</b>	<p>P403+P235 - Store in well-ventilated place. Keep cool</p> <p>P405 - Store locked up</p> <p>P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste</p>

## SECTION 3 COMPOSITION

### Chemical Composition

COMPONENT	CAS NUMBER	PERCENT BY WEIGHT
Limestone*	1317-65-3	10 - 50
Titanium Dioxide*	13463-67-7	1 - 15
Zinc Oxide	1314-13-2	0 - 5
Aluminum hydroxide	21645-51-2	0 - 15
Crystalline silica*	14808-60-7	< 1
Ammonium hydroxide	1336-21-6	< 1
Biocide	Proprietary	< 1

\* Components listed for their unbound powder form. When these components are used in applications such as coatings, they become part of a mixture and are not considered hazardous.

**Note:** The above components and their percentages are provided for health and safety purposes, ONLY. This document should not be construed as a guaranteed analysis of any specific lot or as specifications for the product. Some product identifiers are withheld as a trade secret in accordance with 29 CFR 1910.1200.

## SECTION 4 FIRST AID MEASURES

<b>Eyes</b>	Immediately flush with large amounts of potable water. Eye lids should be held away the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
<b>Skin</b>	Remove contaminated clothing and wash with soap and water.
<b>Inhalation</b>	Remove affected person from source of exposure. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	DO NOT induce vomiting unless directed to do so by a physician or poison control center. Gently wipe or rinse the inside of the mouth with water. Never give anything by mouth to an unconscious person. Keep respiratory tract clear. Get medical attention immediately.
<b>Symptoms, Acute &amp; Delayed</b>	<b>Refer to Section 11 - Toxicological Information</b>
<b>Immediate Medical Attention</b>	All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials

### ABBREVIATION KEY

LEL = Lower Explosion Limit  
NFPA = National Fire Protection Association

UEL = Upper Explosion Limit

## SECTION 5 FIRE FIGHTING MEASURES

<b>Fire Hazard</b>	Product is not flammable
<b>Hazardous Combustion</b>	Carbon oxides and titanium/titanium oxides
<b>Extinguishing Media</b>	Alcohol-resistant foam, carbon dioxide, dry powder or water fog.
<b>Firefighting instruction</b>	Use standard procedure for chemical fires. Do not use direct water on substance. Water and foam may cause frothing. Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
<b>Explosion Hazard</b>	Containers can burst violently or explode when heated, due to excessive pressure build-up.
<b>Protection Gear</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

<b>Non-emergency Personnel</b>	No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in <b>Section 8</b> . Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material.
<b>Environmental Precautions</b>	Avoid release into the environment. Report releases as required by local, state and federal authorities.
<b>Methods and Material for Containment &amp; Clean up</b>	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of in an approved facility, <b>see Section 13, Disposal Considerations.</b>

## SECTION 7 HANDLING AND STORAGE

<b>Handling</b>	<b>Use personal protective equipment as described in Section 8.</b> Do not handle until all safety precautions have been read and understood. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. May cause cancer. Avoid discharge to the aquatic environment. Do not handle broken packages without protective equipment. Do not reuse empty containers.
<b>Storage</b>	Store away from incompatible materials ( <b>see Section 10</b> ). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.

ABBREVIATION KEY

SCBA = Self contained breathing apparatus

**SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Occupational Exposure Limits**

COMPONENT	CAS NUMBER	OSHA PEL	ACGIH TLV	NIOSH REL
Limestone	1317-65-3	5 mg/m <sup>3</sup> (respirable) 15 mg/m <sup>3</sup> (total)	3 mg/m <sup>3</sup> (respirable) 10 mg/m <sup>3</sup> (total)	5 mg/m <sup>3</sup> (respirable) 10 mg/m <sup>3</sup> (total)
Titanium Dioxide	13463-67-7	15 mg/m <sup>3</sup> TWA (total)	10 mg/m <sup>3</sup> TWA	Not Established
Zinc Oxide	1314-13-2	5 mg/m <sup>3</sup> (respirable) 15 mg/m <sup>3</sup> (total)	2 mg/m <sup>3</sup> (respirable) 10 mg/m <sup>3</sup> (STEL)	5 mg/m <sup>3</sup> (respirable) 10 mg/m <sup>3</sup> (STEL) 15 mg/m <sup>3</sup> (total)
Aluminum Hydroxide	21645-51-2	5 mg/m <sup>3</sup> (respirable) 15 mg/m <sup>3</sup> (total)	3 mg/m <sup>3</sup> (respirable) 10 mg/m <sup>3</sup> (total)	5 mg/m <sup>3</sup> (respirable) 10 mg/m <sup>3</sup> (total)
Crystalline silica	14808-60-7	0.1 mg/m <sup>3</sup> TWA (respirable)	0.025 mg/m <sup>3</sup> TWA (respirable)	0.05 mg/m <sup>3</sup> TWA (respirable)
Ammonium hydroxide	1336-21-6	18 mg/m <sup>3</sup> (respirable) 27 mg/m <sup>3</sup> (total)	18 mg/m <sup>3</sup> TWA 27 mg/m <sup>3</sup> STEL	18 mg/m <sup>3</sup> (respirable) 27 mg/m <sup>3</sup> (total)
Biocide	Proprietary	Not Established	10 mg/m <sup>3</sup> TWA	Not Established

**Engineering Measures/  
Controls**

Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

**General Industrial Hygiene**

Use good industrial hygiene practices in handling this material.

**Environmental Exposure  
Controls**

Follow best practice for site management and disposal of waste.

**PERSONAL PROTECTIVE EQUIPMENT**

**Pictographs**



**Eyes/Face**

**Safety glasses with side shields**

Follow the national guidelines concerning the use of protective eye wear.

**Hand**

**Protective Gloves**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary

**Skin/Body**

Normal work clothing (long sleeved shirts, long pants and smooth bottom work shoes) is recommended.

**Inhalation**

Use NIOSH or MSHA approved respiratory protective equipment when airborne exposure limits are exceeded.

**ABBREVIATION KEY**

OSHA = Occupational Safety & Health Administration  
NIOSH = National Institute for Occupational Safety  
ACGIH = American Conference of Governmental Industrial Hygiene  
REL = Recommended exposure limit

PEL = Permissible Exposure Level  
TLV = Threshold Limit Value  
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

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### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>Appearance</b>	white
<b>Odor</b>	Mild ammonia odor
<b>Odor Threshold</b>	Not available
<b>pH</b>	Not available
<b>Relative Evaporation Rate</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Flammability (solid, gas)</b>	Not available
<b>Vapor pressure</b>	17 mm Hg @ 20°C/68°F
<b>Vapor density</b>	Not available
<b>Specific Gravity</b>	1.2 - 1.5
<b>VOC</b>	<50 g/L

### SECTION 10 STABILITY AND REACTIVITY

<b>Stability</b>	Stable at room temperature in closed containers under advised storage and handling conditions.
<b>Reactivity</b>	No potentially hazardous reactions known
<b>Conditions to Avoid</b>	Strong oxidizers
<b>Hazardous Decomposition</b>	Thermal decomposition or combustion may produce harmful gases or vapors
<b>Hazardous Polymerization</b>	Will not occur

### SECTION 11 TOXICOLOGICAL INFORMATION

#### Component Analysis

COMPONENT	CAS NUMBER	ORAL LD50 (mg/kg)	DERMAL LD50 (mg/kg)	INHALATION LC50 (mg/L)
Limestone	1317-65-3	>6,450 (rat)	N/A	N/A
Titanium Dioxide	13463-67-7	> 2,000 (rat)	N/A	> 5.09 (rat) 4 hour
Zinc Oxide	1314-13-2	>5,000 (rat)	N/A	> 5.7 (rat) 4 hour
Aluminum hydroxide	21645-51-2	> 2,000 (rat)	N/A	> 2.3 (rat) 4 hour
Crystalline silica	14808-60-7	>500 (rat)	N/A	N/A
Ammonium hydroxide	1336-21-6	>350 (rat)	N/A	N/A

#### POTENTIAL HEALTH EFFECTS

##### Eyes

###### Acute (Immediate)

May cause temporary irritation, tearing and burning

###### Chronic (Delayed)

This product is not expected to cause serious eye damage or irritation

##### Skin

###### Acute (Immediate)

Prolonged skin contact may cause dryness, redness or cracking

###### Chronic (Delayed)

May cause skin sensitization or allergic reactions in sensitive individuals.

#### ABBREVIATION KEY

VOC = Volatile organic compound  
LC50 = Lethal concentration, 50 Percent

LD50 = Lethal dose, 50 percent

## SECTION 11 TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### Inhalation

**Acute (Immediate)**

Prolonged inhalation may cause irritation of the nose, throat, and lungs

**Chronic (Delayed)**

No data available

#### Ingestion

**Acute (Immediate)**

Gastrointestinal symptoms, including upset stomach

**Chronic (Delayed)**

No data available

#### Component Carcinogenicity

Crystalline silica (14808-60-7)

IARC: Group 1 - Known Human Carcinogen (IARC Monograph 68 [1997])

ACGIH: A2 - Suspected Human Carcinogen

NTP: Known Human Carcinogen

Titanium Dioxide (13463-67-7)

IARC: Group 2B - Known Human Carcinogen

#### Carcinogenicity

According to IARC, No significant exposure to titanium dioxide and crystalline silica should occur because these components are bound in the polymer matrix and dust exposure would not be expected

#### Teratogenicity

Based on available data, the classification criteria are not met.

#### Mutagenicity

Based on available data, the classification criteria are not met.

#### Aspiration Hazard

Based on available data, the classification criteria are not met.

#### STOT Single Exposure

Based on available data, the classification criteria are not met.

#### STOT Repeated Exposure

Based on available data, the classification criteria are not met.

## SECTION 12 ECOLOGICAL INFORMATION

### Eco toxicity

COMPONENT	CAS NUMBER	FISH LC50 (mg/L)	DAPHNA EC50 (mg/L)	ALGAE EC50 (mg/L)
Titanium Dioxide	13463-67-7	>1,000 96 Hours	>1,000 (Water flea) 48 Hours	N/A
Zinc Oxide	1314-13-2	>1.1 (rainbow trout) 96 Hours	>0.098 (Water flea) 48 Hours	N/A
Ammonium hydroxide	1336-21-6	>15 (w. mosquitofish) 96 Hours	>25.4 (Water flea) 48 Hours	N/A
Biocide	Proprietary	>14.7 (rainbow trout) 96 Hours	>6.3 - 13 (Water flea) 48 Hours	>0.022 (Algae) 96 Hours

### Eco toxicity

This product may cause adverse environmental effects if used improperly or release to the environment through a spill. Employ best management practices to prevent this material from entering storm sewer systems, waterways or otherwise impacting plant and animal species.

#### Biodegradability

No Data available

#### Bioaccumulation Potential

No Data available

#### Soil Absorption/Mobility

No Data available

#### Ozone-Depletion Potential

No known significant effects or critical hazards

#### ABBREVIATION KEY

IARC = International Agency for Research on Cancer  
ACGIH = American Conference of Governmental Industrial Hygiene  
LC50 = Lethal concentration, 50 Percent

NTP = National Toxicology Program  
STOT = Specific Target Organ Toxicity  
EC50 = Effective concentration, 50 Percent

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### SECTION 13 DISPOSAL CONSIDERATIONS

<b>Product Waste</b>	The transportation, storage, treatment and dispose of this waste must be conducted in accordance with all applicable federal, state and local regulations.
<b>Packaging Waste</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Packaging that cannot be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

### SECTION 14 TRANSPORT INFORMATION

<b>Transportation Regulations</b>	This product is not regulated as a hazardous material in transportation.
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### SECTION 15 REGULATORY INFORMATION

<b>TSCA Inventory</b>	Components are listed
<b>DSL Inventory</b>	Components are listed
<b>Sara 313</b>	Zinc oxide (1314-13-2); Ammonium hydroxide (1336-21-6); Biocide
<b>Sara 311/312 Categories</b>	Acute Health Hazard; Chronic Health Hazard
<b>CERCLA</b>	Ammonium hydroxide 1000 lbs; methyl benzimidazol-2-yl carbamate 10 lbs; biocide 100lbs;
<b>CA Proposition 65</b>	<b>WARNING:</b> This product can expose you to chemicals including crystalline silica, biocide, benzophenone and titanium dioxide which are known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .
<b>Right to Know States</b>	

COMPONENT	CAS NUMBER	CA	MA	MN	NJ	PA	RI
Limestone	1317-65-3	No	Yes	Yes	No	Yes	Yes
Titanium Dioxide	13463-67-7	Yes	Yes	Yes	Yes	Yes	Yes
Zinc Oxide	1314-13-2	Yes	Yes	Yes	Yes	Yes	Yes
Aluminum hydroxide	21645-51-2	No	No	No	No	Yes	No
Crystalline silica	14808-60-7	Yes	Yes	Yes	Yes	Yes	Yes
Ammonium hydroxide	1336-21-6	Yes	Yes	No	Yes	Yes	Yes
Biocide	Proprietary	Yes	Yes	Yes	Yes	Yes	Yes

### SECTION 16 OTHER INFORMATION

<b>Preparation Date</b>	April 2020
<b>Revision Date</b>	March 2022
<b>Summary of Changes</b>	Branding Update
<b>Disclaimer</b>	<p>The information and recommendations contained herein are to the best of Performance Roof Systems' knowledge and belief, accurate and reliable as of the date issued. Performance Roof Systems does not warrant or guarantee their accuracy or reliability, and Performance Roof Systems shall not be liable for any loss or damage arising out of the use thereof.</p> <p>The information and recommendations are offered for the users consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. It is also the users responsibility to make certain that it is relying upon the most recent, updated, information and recommendations available from Performance Roof Systems.</p>

#### ABBREVIATION KEY

TSCA = Toxic Substances Control Act  
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act,

DSL = Domestic Substances List (Canada)  
SARA = Superfund Amendments and Reauthorization Act