SAFETY DATA SHEET PERMACOOL AC FLASH BRUSH GRADE



	SECTION 1 IDENTIFICATION	
Product Name	PermaCool AC Flash Brush Grade	
Product Identifier	Heavy-bodied Elastomeric Caulk and Sealant	
Restrictions	None	
Manufacturer	Performance Roof Systems	
Address	4821 Chelsea Avenue Kansas City, MO 64130	
Phone Number	(800) 727-9872	
Emergency Number	(800) 424-9300 (CHEMTREC)	
	SECTION 2 HAZARDS	
GHS Classification	Skin Sensitization: Category 1 Carcinogenicity: Category 2 Acute AquaticToxicity - Category 3 Chronic aquatic toxicity - Category 4	
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	



SECTION 2 HAZARDS Response P332+P313 - If skin irritation or rash occurs: Get medical advice/ attention. P337+P313 - If eye irritation persists: Get medical advice/ attention. P370+P378 - In case of fire: Use carbon dioxide (CO₂), foam, dry extinguishing powder to extinguish Storage P403+P235 - Store in well-ventilated place. Keep cool P405 - Store locked up 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

SECTION 3 COMPOSITION

Chemical Composition

COMPONENT	CAS NUMBER	PERCENT BY WEIGHT
Limestone*	1317-65-3	10 - 50
Titanium Dioxide*	13463-67-7	5 - 10
Aluminum hydroxide	21645-51-2	10 - 20
Zinc Oxide	1314-13-2	0 - 5
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

Eyes	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.
Skin	Remove contaminated clothing and wash with soap and water.
Inhalation	Remove affected person from source of exposure. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, give oxygen. Get medical attention.
Ingestion	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.
Symptoms, Acute & Delayed	Refer to Section 11 - Toxicological Information
Immediate Medical Attention	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

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SECTION 5 FIRE FIGHTING MEASURES		
Fire Hazard	Product is non-combustible	
Hazardous Combustion	Carbon monoxide, carbon dioxide, Acrylic monomers and other potentially toxic fumes	
Extinguishing Media	Alcohol-resistant foam, carbon dioxide, dry powder or water fog.	
Firefighting instruction	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.	
Explosion Hazard	Containers can burst violently or explode when heated, due to excessive pressure build-up.	
Protection Gear	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	
Non-emergency Personnel	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 Section 8 . 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.	
Environmental Precautions	Avoid release into the environment. Report releases as required by local, state and federal authorities.	
Methods and Material for Containment & Clean up	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, <i>see Section 13, Disposal Considerations.</i>	
	SECTION 7 HANDLING AND STORAGE	
Handling	Use personal protective equipment as described in Section 8. 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.	

Storage

SCBA = Self contained breathing apparatus

ABBREVIATION KEY

Store away from incompatible materials *(see Section 10)*. 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.



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/m³ (respirable) 15 mg/m³ (total)	3 mg/m ³ (respirable) 10 mg/m ³ (total)	5 mg/m³ (respirable) 10 mg/m³ (total)
Titanium Dioxide	13463-67-7	15 mg/m³ TWA (total)	10 mg/m³ TWA	Not Established
Zinc Oxide	1314-13-2	5 mg/m ³ (respirable) 15 mg/m ³ (total)	2 mg/m³ (respirable) 10 mg/m³ (STEL)	5 mg/m³ (respirable) 10 mg/m³ (STEL) 15 mg/m³ (total)
Aluminum Hydroxide	21645-51-2	5 mg/m ³ (respirable) 15 mg/m ³ (total)	3 mg/m ³ (respirable) 10 mg/m ³ (total)	5 mg/m³ (respirable) 10 mg/m³ (total)
Crystalline silica	14808-60-7	0.1 mg/m³TWA (respirable)	0.025 mg/m³ TWA (respirable)	0.05 mg/m³ TWA (respirable)
Ammonium hydroxide	1336-21-6	18 mg/m ³ (respirable) 27 mg/m ³ (total)	18 mg/m³TWA 27 mg/m³STEL	18 mg/m³ (respirable) 27 mg/m³ (total)
Biocide	Proprietary	Not Established	10 mg/m³ TWA	Not Established

Engineering Measures/ Adequate ventilation systems as needed to control concentrations of airborne **Controls** contaminants below applicable threshold limit values. **General Industrial Hygiene** Use good industrial hygiene practices in handling this material. **Environmental Exposure** Follow best practice for site management and disposal of waste. **Controls** 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.

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

ABBREVIATION KEY

REL = Recommended exposure limit

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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

SECTION 10 STABILITY AND REACTIVITY

Stability	Stable at room temperature in closed containers under advised storage and handling conditions.
Reactivity	No potentially hazardous reactions known
Conditions to Avoid	Strong oxidizers
Hazardous Decomposition	Thermal decomposition or combustion may produce harmful gases or vapors
Hazardous Polymerization	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	> 2.87 (rat) 4 hour

POTENTIAL HEALTH EFFECTS

Eyes

Acute (Immediate) Chronic (Delayed) Skin Acute (Immediate) Chronic (Delayed) May cause temporary irritation, tearing and burning This product is not expected to cause serious eye damage or irritation

Prolonged skin contact may cause dryness, redness or cracking May cause skin sensitization or allergic reactions in sensitive individuals.

LD50 = Lethal dose, 50 percent

ABBREVIATION KEY



SECTION 11 TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS	5
Acute <i>(Immediate)</i> Chronic (Delayed) Ingestion	Prolonged inhalation may cause irritation of the nose, throat, and lungs Prolonged inhalation of high concentrations may damage respiratory system.
Acute <i>(Immediate)</i> Chronic (Delayed)	Gastrointestinal symptoms, including upset stomach 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)
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 m	ay cause adverse enviro	onmental effects if used	l improperly or release

Biodegradability

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. No Data available

Bioaccumulation Potential Soil Absorption/Mobility **Ozone-Depletion Potential**

No Data available No Data available

No known significant effects or critical hazards

LC50 = Lethal concentration, 50 Percent NTP = National Toxicology Program

STOT = Specific Target Organ Toxicity EC50 = Effective concentration, 50 Percent



SECTION 13 DISPOSAL CONSIDERATIONS			
Product Waste		The transportation, storage, treatment and dispose of this waste must be conducted in accordance with all applicable federal, state and local regulations.	
Packaging Waste	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			
Transportation Regu	Transportation Regulations This product is not regulated as a hazardous material in transportation.		
	SECTION 15 REGULATORY INFORMATION		
TSCA Inventory		Components are listed	
DSL Inventory		Components are listed	
Sara 313 Zinc oxide (1314-13-2); Ammonium hydroxide (21645-51-2); Biocide		Zinc oxide (1314-13-2); Ammonium hydroxide (21645-51-2); Biocide	
Sara 311/312 Catego	ories	Acute Health Hazard; Chronic Health Hazard	
CERCLA		Ammonium hydroxide 1000 lbs; methyl benzimidazol-2-yl carbamate 10 lbs; Biocide 100lbs;	

CA Proposition 65

WARNING: 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 www.P65Warnings.ca.gov.

Right to Know States

COMPONENT	CAS NUMBER	СА	МА	MN	IJ	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				
Preparation Date	April 2020			
Revision Date	March 2022			
Summary of Changes	Branding Update			
Disclaimer	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.			
	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.			
	ABBREVIATION KEY			

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