SAFETY DATA SHEET
PERMAPRIME METAL

SECTION 1 IDENTIFICATION

Product Name	PermaPrime Metal
Product Identifier	Primer
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 2
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 - Toxic 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
P332+P313 - If skin irritation or rash occurs: Get medical advice/ attention

ABBREVIATION KEY

GHS = Global Harmonized System
STOT = Specific Target Organ Toxicity

SECTION 2 HAZARDS

Response

P337+P313 - If eye irritation persists: Get medical advice/ attention.
P370+P378 - In case of fire: Use carbon dioxide (CO_2), 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 - 25
Talc*	14807-96-6	5 - 10
Zinc Phosphate	7779-90-0	1 - 10
Titanium dioxide*	13463-67-7	1 - 5
Diiron trioxide*	1309-37-1	1 - 5
Texanol	25265-77-4	1 - 5
Ammonium hydroxide	1336-21-6	< 1
Crystalline silica*	14808-60-7	< 1
Silicon dioxide*	7361-86-9	< 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

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

ABBREVIATION KEY

LEL = Lower Explosion Limit
NFPA = National Fire Protection Association
UEL = Upper Explosion Limit

SECTION 5 FIRE FIGHTING MEASURES

Fire Hazard	Product is non-combustable
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
Explosion Hazard	Containers can burst violently or explode when heated, due to excessive pressure build-up.
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.
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, ***see Section 13, Disposal Considerations.***

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	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.

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/m³ (respirable) 15 mg/m³ (total)	3 mg/m³ (respirable) 10 mg/m³ (total)	5 mg/m³ (respirable) 15 mg/m³ (total)
Talc	14807-96-6	20 mppcf TWA	2 mg/m³ TWA	2 mg/m³ TWA
Zinc Phosphate	7779-90-0	2 mg/m³ TWA 10 mg/m³ STEL	2 mg/m³ (respirable)	2 mg/m³ (respirable)
Titanium Dioxide	13463-67-7	15 mg/m³ TWA	10 mg/m³ TWA	Not Established
Diiron troxide	1309-37-1	5 mg/m³ (respirable) 10 mg/m³ (fume)	5 mg/m³ (fume)	5 mg/m³ (respirable) 10 mg/m³ (total)
Texanol Ester	25265-77-4	50 mg/m³ TWA (total)	Not Established	Not Established
Ammonium hydroxide	1336-21-6	18 mg/m³ (respirable) 27 mg/m³ (total)	18 mg/m³ TWA 27 mg/m³ STEL	18 mg/m³ TWA 27 mg/m³ STEL
Crystalline silica	14808-60-7	0.1 mg/m³ TWA (respirable)	0.025 mg/m³ TWA (respirable)	0.05 mg/m³ TWA (respirable)
Silicon dioxide	7361-86-9	80 mg/m³ (respirable)	6 mg/m³ (respirable)	6 mg/m³ (respirable)

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Red
Odor	Mild ammonia odor
Odor Threshold	Not available
pH	Not available
Relative Evaporation Rate	Not available
Boiling Point	~ 212°F similiar to water
Freezing Point	Not available
Flash Point	< 200°F
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Flammability (solid, gas)	Not available
Vapor pressure	17 mm Hg @ 68°F similiar to water
Vapor density	Not available
Specific Gravity	1.2 - 1.5
Density	11.4 lb/gal
VOC	<65 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)
Zinc Phosphate	7779-90-0	> 5,000 (rat)	N/A	N/A
Titanium Dioxide	13463-67-7	> 10,000 (rat)	> 10,000 (rabbit)	>6.82 (rat)/4hrs
Diiron Trioxide	1309-37-1	> 10,000 (rat)	N/A	N/A
Texanol Ester	25265-77-4	> 6,500 (rat)	> 15,200 (rabbit)	N/A
Ammonium hydroxide	1336-21-6	>350 (rat)	N/A	N/A
Crystalline silica	14808-60-7	> 550 (rat)	N/A	N/A
Silicon dioxide	7361-86-9	> 3,160 (rat)	> 2,000 (rabbit)	> 2.2 (rat)/4hrs

ABBREVIATION KEY

VOC = Volatile organic compound
LC_{50} = Lethal concentration, 50 Percent
LD_{50} = Lethal dose, 50 percent

SECTION 11 TOXICOLOGICAL INFORMATION

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) This product is not expected to cause sensitization

Inhalation

Acute *(Immediate)* Irritation to mucus membranes and respiratory tract
Chronic (Delayed) Prolonged inhalation may cause irritation of the nose, throat, and lungs

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 mixture 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

Aquatic toxicity

COMPONENT	CAS NUMBER	FISH LC_{50} (mg/L)/96hr	DAPHNA EC_{50} (mg/L)/48hr	ALGAE EC_{50} (mg/L)/72hr
Zinc Phosphate	7779-90-0	0.14 - 0.26 (rainbow trout)	0.04 - 0.86	0.136 - 0.15
Titanium dioxide	13463-67-7	1,000 (A. killfish)	>3	N/A
Texanol	25265-77-4	33 (f. minnow)	147.8	18.4
Ammonium hydroxide	1336-21-6	15 (w. mosquitofish)	>0.66	>29.2
Silicon dioxide	7631-86-9	5,000 (zebrafish)	7,600	440

Eco toxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

ABBREVIATION KEY

IARC = International Agency for Research on Cancer
ACGIH = American Conference of Governmental Industrial Hygiene
LC_{50} = Lethal concentration, 50 Percent
NTP = National Toxicology Program
STOT = Specific Target Organ Toxicity
EC_{50} = Effective concentration, 50 Percent

SECTION 12 ECOLOGICAL INFORMATION

Persistence & Degradability No Data

Bioaccumulation Potential

COMPONENT	CAS NUMBER	LOG P_{OW}	TEMPERATURE	SOIL pH
Texanol	25265-77-4	3.47	68˚F	N/A

Soil Absorption/Mobility No Data

Ozone-Depletion Potential This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B)

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

Hazard Class (TDG & DOT) 9

Identification Number UN3082

Shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Trizinc bis (orthophosphate), Ammonia)

Packaging group III

SECTION 15 REGULATORY INFORMATION

TSCA Inventory Components are listed

DSL Inventory Components are listed

Sara 313 Ammonium hydroxide (14808-60-7); Zinc Phosphate (7779-90-0);

Sara 311/312 Categories Acute Health Hazard; Chronic Health Hazard

CERCLA Ammonium hydroxide 1000 lbs;

CA Proposition 65 **WARNING:** This product can expose you to chemicals including crystalline silica and titanium dioxide, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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

SECTION 15 REGULATORY INFORMATION

Right to Know States

COMPONENT	CAS NUMBER	CA	MA	MN	NJ	PA	RI
Limestone	1317-65-3	No	Yes	Yes	No	Yes	Yes
Talc	14807-96-6	Yes	Yes	Yes	Yes	Yes	Yes
Titanium dioxide	13463-67-7	No	Yes	Yes	Yes	Yes	Yes
Diiron Trioxide	1309-37-1	Yes	Yes	Yes	Yes	Yes	Yes
Texanol	25265-77-4	No	No	No	No	Yes	No
Ammonium hydroxide	14808-60-7	Yes	Yes	No	Yes	Yes	No
Zinc Phosphate	7779-90-0	Yes	Yes	Yes	Yes	Yes	No
Silicon dioxide	7631-86-9	Yes	Yes	Yes	No	Yes	No
Crystalline silica	14808-60-7	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