

27106-1004

Product: **AM222**

SDS Version 1.0

Preparation Date: 10/07/2021

Page 1

**TRIANGLE COATINGS, INC.****SAFETY DATA SHEET****SECTION 1 – IDENTIFICATION**

PRODUCT NAME: **Primer for Rustable Metals**  
 IDENTIFICATION NUMBER: **AM222**  
 PRODUCT USE/CLASS: Metal Primer

DATE PRINTED: 10/28/2021

SUPPLIER:  
 Triangle Coatings, Inc.

MANUFACTURER:  
 Triangle Coatings, Inc.

4763 Bennett Drive  
 Livermore, CA 94551  
 +1-925-583-0800 (8:00am-5:00pm)

4763 Bennett Drive  
 Livermore, CA 94551  
 +1-925-583-0800 (8:00am-5:00pm)

CHEMTREC 24HR EMERGENCY TELEPHONE  
 +1-800-424-9300 (Inside USA)

PREPARER: nbk, PHONE: +1-925-583-0800

**SECTION 2 - HAZARDS IDENTIFICATION****Classification of substance/mixture**

This material is not considered to be hazardous by OSHA Hazard Communication Standard (29 CFR 1910.12100)

**GHS HAZARD STATEMENTS**

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**GHS PRECAUTION PHRASES**

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**Other Hazards:** Not applicable

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

<b>CAS-No.</b>	<b>Components</b>	<b>Weight Percent</b>
7732-18-5	Water	25-50%
Proprietary	Acrylic Polymer	15-25%
13463-67-7	Titanium Dioxide	10-15%
14807-96-6	Hydrous Magnesium Silicate	2.5-10%
7727-43-7	Barium Sulfate	2.5-10%
Not Haz	Inorganic Pigment	2.5-10%
12001-26-2	Potassium Aluminum Silicate	1.0-2.5%

**CAS NUMBER****GHS Symbols****GHS Hazard Statements**

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Page 1/9

Product: **AM222**

SDS Version 1.0

Preparation Date: 10/07/2021

Page 2

## SECTION 4 - FIRST AID MEASURES

### Description of First Aid Measures

**FIRST AID - EYE CONTACT:** Immediately flush eyes with plenty of water for 15 minutes. Get medical attention, if irritation persists.

**FIRST AID - SKIN CONTACT:** Wash with soap and water. Get medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Do not reuse until cleaned.

**FIRST AID - INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

**FIRST AID - INGESTION:** If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

### Most important symptoms and effects, acute and delayed

May be harmful if swallowed. Irritating to eyes and skin.

### Indications of immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in Section 11

## SECTION 5 - FIRE FIGHTING MEASURES

**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function but will be less effective.

**Unsuitable extinguishing media:** no data available

### Special hazards arising from the substance or mixture

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

### Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Avoid accumulation of water. Product may be carried across water surface spreading fire or contracting an ignition source.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers,

Product: **AM222**

SDS Version 1.0

Preparation Date: 10/07/2021

Page 3

boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Small spills: Absorb with materials such as: Sand. Vermiculite. Collect in suitable and properly labeled containers. Large spills: Contain spilled material if possible. Pump into suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

## SECTION 7 - HANDLING AND STORAGE

### Precautions for safe handling

**INSTRUCTIONS FOR SAFE HANDLING:** Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow SDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fume, vapors, or mist. Avoid contact with eyes, skin and clothing.

### Conditions for safe storage, including incompatibilities

**CONDITIONS TO AVOID:** Heat, flames and sparks.

**STORAGE CONDITIONS:** Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Exposure limits are listed below, if they exist.

<u>Name</u>	<u>%</u>	<u>ACGIH TLV-</u>	<u>ACGIH TLV-</u>	<u>OSHA PEL-</u>	<u>OSHA PEL-</u>	<u>OEL Note</u>
		<u>TWA</u>	<u>STEL</u>	<u>TWA</u>	<u>CEILING</u>	
Water	25-50%	N/E	N/E	N/E	N/E	
Acrylic Polymer	15-25%	N/E	N/E	N/E	N/E	
Titanium Dioxide	10-15%	10mg/m3	N/E	15mg/m3	N/E	as dust
Hydrous Magnes. Silicate	2.5-10%	N/E	N/E	N/E	N/E	
Barium Sulfate	2.5-10%	N/E	N/E	N/E	N/E	
Inorganic Pigment	2.5-10%	N/E	N/E	N/E	N/E	
Potassium Alum Silicate	1.0-2.5%	N/E	N/E	N/E	N/E	

**FURTHER INFORMATION:** Refer to the local country/regional regulatory exposure limits for the workforce.

### Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

### Individual protection measures

Product: **AM222**

SDS Version 1.0

Preparation Date: 10/07/2021

Page 4

**Eye/face protection:** Use chemical goggles.**Skin protection**

**Hand protection:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl").

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Wear clean, body-covering clothing.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

APPEARANCE	: White Viscous Liquid
PHYSICAL STATE	: Liquid
BOILING RANGE	: >212°F (>100°C)
VAPOR DENSITY	: Is heavier than air
ODOR	: Mild
ODOR THRESHOLD	: N.E.
EVAPORATION RATE	: Is slower than Butyl Acetate
SOLUBILITY IN H <sub>2</sub> O	: N.E.
FREEZE POINT	: >32°F (>0.0°C)
SPECIFIC GRAVITY	: 1.2551
VAPOR PRESSURE	: N.E.
pH	: 9.5-10.0.
VOLATILE BY VOLUME	: 65.5%
COEFFICIENT OF WATER/OIL DISTRIBUTION:	N.E.
FLASH POINT	: >200°F (>93°C)
(SETAFLASH CLOSED CUP)	
AUTOIGNITION TEMPERATURE:	N.E.
LOWER EXPLOSIVE LIMIT	: N.E.
UPPER EXPLOSIVE LIMIT	: N.E.
VOC Content (g/l)	: 49 g/l (.41 lb./gal)

**SECTION 10 - STABILITY AND REACTIVITY****Reactivity:** No reactivity hazards known under normal storage and use conditions.**Chemical stability:** Stable under normal conditions

Product: **AM222**

SDS Version 1.0

Preparation Date: 10/07/2021

Page 5

**Possibility of hazardous reactions:** Hazardous polymerization does not occur**Conditions to avoid:** Heat, flames and sparks**Incompatible materials:** Strong oxidizing agents**Hazardous decomposition products:** Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.**SECTION 11 - TOXICOLOGICAL PROPERTIES***Toxicological information on this product or its components appear in this section when such data is available.***Skin corrosion/irritation**

Prolonged contact may cause slight skin irritation with local redness.

**Serious eye damage/eye irritation**May cause slight eye irritation.  
May cause slight corneal injury.**Sensitization**For allergic skin reactions: No relevant data available  
For respiratory sensitization: No relevant data available**Specific Target Organ Systemic Toxicity (Single Exposure)**

Available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

No relevant data available

**Carcinogenicity**

No relevant data available.

**Teratogenicity**

No relevant data available.

**Reproductive toxicity**

No relevant data available.

**Mutagenicity**

No relevant data available.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**The following values are calculated based on chapter 3.1 of the GHS document**

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**Component information:** If no information is available above under Acute Toxicity, then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS NUMBER</u>	<u>CHEMICAL NAME</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
7732-18-5	Water	Not Available	Not Available	Not Available
None	Acrylic Polymer	Not Available	Not Available	Not available

Product: <b>AM222</b>	SDS Version 1.0	Preparation Date: 10/07/2021	Page 6	
13463-67-7	Titanium Dioxide	25000 mg/kg, rat, oral	Not Available	Not Available
14807-96-6	Hydrous Magnesium Silicate	Not Available	Not Available	Not available
7727-43-7	Barium Sulfate	>5000 mg/kg (Rat)	Not Available	Not available
Not Hazardous	Inorganic Pigment	Not Available	Not Available	Not available
12001-26-2	Potassium Aluminum Silicate	Not Available	Not Available	Not available

**Titanium dioxide**

LD50 Oral: &gt; 10000 mg/kg (Rat)

**Carcinogenicity***The information below indicates whether each agency has listed any ingredient as a carcinogen:*

Chemical Name	IARC	NTP	OSHQ Carcinogen
Titanium Dioxide	*2B – Possible Human Carcinogen	N.E.	Listed

\*Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: “**No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials such as paint.**”

**Legend**

IARC - International Agency for Research on Cancer

NTP - National Toxicity Program

OSHA - Occupational Safety &amp; Health Administration

**SECTION 12 - ECOLOGICAL INFORMATION**

*Ecotoxicological information on this product or its components appear in this section when such data is available*

**Aquatic toxicity**

No information available.

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility in soil**

No information available

**Results of PBT and vPvB assessment**

This product does not contain any substances classified as PBT or vPvB

**Other adverse effects** No information available

No data available

**Component information:** If no information is available above, then the acute effects of this product have not been tested. Data on individual components are stated below:

**Titanium Dioxide Toxicity****Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis

(LC50/EC50/EL50/LL50 &gt;100 mg/L in the most sensitive species tested).

LC50, *Poecilia reticulata* (guppy), static test, 96 Hour, 841 mg/l, OECD Test Guideline 203 or Equivalent**Acute toxicity to aquatic invertebrates**LC50, *Daphnia magna* (Water flea), static test, 48 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Product: **AM222**

SDS Version 1.0

Preparation Date: 10/07/2021

Page 7

**Persistence and degradability**

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

10-day Window: Pass

**Biodegradation:** 91 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301E or Equivalent

10-day Window: Pass

**Biodegradation:** 95 %

**Exposure time:** 21 d

**Method:** OECD Test Guideline 301A or Equivalent

10-day Window: Not applicable

**Biodegradation:** 96 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 302B or Equivalent

**Theoretical Oxygen Demand:** 2.35 mg/mg

**Photodegradation**

**Sensitizer:** OH radicals

**Atmospheric half-life:** 2.6 Hour

**Method:** Estimated.

**Bioaccumulative potential**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

**Partition coefficient: n-octanol/water(log Pow):** 1.523 Estimated.

**Mobility in soil**

Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient (Koc):** 10 - 21 Estimated.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

**Disposal methods:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must follow all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SDS SECTION 3: Composition/Information on Ingredients. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

**Waste Treatment Methods:** Do not burn or use cutting torch on the empty drum. If recycling is not practicable, dispose of in compliance with local, county, state, and federal regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**SECTION 14 - TRANSPORTATION INFORMATION****DOT**

Not regulated for transport

**Classification for SEA transport (IMO-IMDG):**

Not regulated for transport

**Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code**

Consult IMO regulations before transporting ocean bulk

Product: **AM222**

SDS Version 1.0

Preparation Date: 10/07/2021

Page 8

**Classification for AIR transport (IATA/ICAO):**

Not regulated for transport

**SECTION 15 - REGULATORY INFORMATION****OSHA Hazard Communication Standard**

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.


**Pennsylvania Worker and Community Right-To-Know Act:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)****Chemical Name                      CAS Number**

Titanium Dioxide, as dust    13463-67-7

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

 **WARNING:** This product can expose you to chemicals including titanium dioxide\*, which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials such as paint."

Based on information provided by our suppliers, this product is considered "DRC Conflict Free" as defined by the SEC Conflict Minerals Final Rule (Release No. 34-67716; File No. S7-40-10; Date: 2012-08-22).

Canada:

WHMIS-2015: This SDS is in compliance with WHMIS 2015 (HPR / new HPA).

**Section 16: OTHER INFORMATION**

This product is recommended only for use in industrial or trade (commercial) applications. It is not suitable for use in Do-It-Yourself applications.

Preparation date:            October 7, 2021  
Revision date:                Not applicable  
Version Number:              1.0  
Revision explanation        Original to conform to GHS

Information Sources:    OSHA 29CFR 1910.1200



Product: **AM222**

SDS Version 1.0

Preparation Date: 10/07/2021

Page 9

**NFPA RATING:**

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

**Hazardous Material Information System III (U.S.A.) :****HMIS Category****HMIS Rating**

<b>Health *</b>	1
<b>Flammability</b>	0
<b>Physical hazards</b>	0
Personal Protective Equipment	B

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program.

\*If health rating is mark with \*, it is a chronic health hazard

Triangle Coatings, Inc. assumes no legal responsibility for use of or reliance upon the information in this SDS and such information shall in no case be considered a part of our terms and conditions of sale. The user is responsible for determining whether the Triangle Coatings product is suitable for user's method of use or application. Triangle Coatings is not liable for any failure to observe the precautionary measures described in this SDS. THERE ARE NO WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THIS INFORMATION OR TO THE PRODUCT IT DESCRIBES. IN NO EVENT SHALL TRIANGLE COATINGS, INC. BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

**End of Safety Data Sheet**