



# SAFETY DATA SHEET

## Acrylic Flashing Grade

### SECTION 1. IDENTIFICATION

Product Name	Acrylic Flashing Grade
Chemical Family	Water-based Acrylic Coating
Recommended Use/Restrictions	Coating for Roofing Applications
Supplier	Marlin Roof Coatings 321 Hausfeldt Lane, New Albany, IN 47150
24-Hour Emergency Phone	National Poison Control Center (U.S.) 1.800.222.1222
Information Only	812.725.3542 (Product Information)

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Eye irritation:	Category 2A
Skin sensitization:	Category 1
Carcinogenicity:	Category 1A

#### GHS Label Elements

Hazard pictograms:



Signal word:

Danger

Hazard statements:

May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause cancer.

Precautionary statements:

#### Prevention:

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood  
Avoid breathing dust, mist, gas, vapors or spray.  
Wash skin and face thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace  
Wear permeation resistant protective gloves and clothing. Wear eye and face protection.

#### Response:

IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage:**

Store locked up.

**Disposal:**

Dispose of contents and container in accordance with existing federal, state, and local environmental control laws.

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 24 %

### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Hazardous Components

<u>Weight Percent</u>	<u>Components</u>	<u>CAS-No.</u>	<u>Classification</u>
10 - 20%	Aluminum hydroxide	21645-51-2	Eye irritation Category 2B.
5 - 10%	Titanium dioxide (Rutile)	13463-67-7	Carcinogenicity Category 2 Inhalation. Specific target organ toxicity – single exposure Category 3 Respiratory system.
0.1 - 1%	Biocide	Trade Secret	Acute toxicity Category 2 Inhalation. Serious eye damage Category 1. Skin sensitization Category 1. Carcinogenicity Category 2.
0.1 - 1%	Ammonium Hydroxide	1336-21-6	Acute toxicity Category 4 Oral. Acute toxicity Category 3 Inhalation. Skin corrosion Category 1A. Serious eye damage Category 1.
0.1 - 1%	Crystalline Quartz Silica	14808-60-7	Acute toxicity Category 4 Oral. Carcinogenicity Category 1A. Specific target organ toxicity - repeated exposure Category 1 Lungs.

The specific chemical identity and/or exact percentage of component(s) have been withheld as a trade secret.

### SECTION 4. FIRST AID MEASURES

#### Most Important Symptom(s)/Effect(s)

**Acute:** Causes serious eye irritation with symptoms of reddening, tearing, swelling, and burning., May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash.

#### Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

#### Skin Contact

In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

#### Inhalation

If inhaled, remove to fresh air. Get medical attention if irritation develops.

#### Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

## SECTION 5. FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** All extinguishing media are suitable.

**Unsuitable Extinguishing Media** No Data Available

### Fire Fighting Procedure

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

### Hazardous Decomposition Products

By Thermal Decomposition: carbon monoxide, carbon dioxide, Acrylic monomers, other potentially toxic fumes

### Unusual Fire/Explosion Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Spill and Leak Procedures

Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

## SECTION 7. HANDLING AND STORAGE

### Handling/Storage Precautions

Avoid breathing dust, vapor, or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Protect from freezing.

### Storage Period:

12 Months

### Storage Temperature

**Minimum:** 1 °C (33.8 °F)

**Maximum:** 49 °C (120.2 °F)

### Storage Conditions

None known

### Substances to Avoid

None known

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Aluminum hydroxide (21645-51-2)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 1 mg/m<sup>3</sup> (Respirable fraction.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

**Titanium dioxide (Rutile) (13463-67-7)**

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 10 mg/m<sup>3</sup>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Permissible exposure limit: 15 mg/m<sup>3</sup> (Total dust.)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

**Ammonium Hydroxide (1336-21-6)**

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 25 ppm

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 35 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Permissible exposure limit: 50 ppm, 35 mg/m<sup>3</sup>

**Crystalline Quartz Silica (14808-60-7)**

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 0.025 mg/m<sup>3</sup> (Respirable fraction.)

US. OSHA Table Z-3 (29 CFR 1910.1000)

Time Weighted Average (TWA): 2.4 millions of particles per cubic foot of air (Respirable). The exposure limit is calculated from the equation,  $250/(\%SiO_2+5)$ , using a value of 100% SiO<sub>2</sub>. Lower percentages of SiO<sub>2</sub> will yield higher exposure limits.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Time Weighted Average (TWA): 0.1 mg/m<sup>3</sup> (Respirable). The exposure limit is calculated from the equation,  $10/(\%SiO_2+2)$ , using a value of 100% SiO<sub>2</sub>. Lower percentages of SiO<sub>2</sub> will yield higher exposure limits.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Time Weighted Average (TWA): 0.3 mg/m<sup>3</sup> (Total dust). The exposure limit is calculated from the equation,  $30/(\%SiO_2+2)$ , using a value of 100% SiO<sub>2</sub>. Lower values of % SiO<sub>2</sub> will give higher exposure limits.

US. ACGIH Threshold Limit Values

Hazard Designation: Group A2 Suspected human carcinogen.

Any component which is listed in section 3 and is not listed in this section does not have a known ACGIH TLV, OSHA PEL or supplier recommended occupational exposure limit.

**Industrial Hygiene/Ventilation Measures**

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

**Respiratory Protection**

In case of insufficient ventilation, wear suitable respiratory equipment.

**Hand Protection**

Permeation resistant gloves.

**Eye Protection**

Splash proof goggles.

**Skin Protection**

Wear cloth work clothing including long pants and long-sleeved shirts.

**Additional Protective Measures**

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>State of Matter:</b>	liquid
<b>Color:</b>	Various
<b>Odor:</b>	Mild, Amine
<b>Odor Threshold:</b>	No Data Available
<b>pH:</b>	No Data Available
<b>Freezing Point:</b>	0 °C (32 °F) similar to water
<b>Boiling Point:</b>	100 °C (212 °F) similar to water
<b>Flash Point:</b>	Not applicable (water based product), however, solid material will support combustion if water has been evaporated.
<b>Evaporation Rate:</b>	No Data Available
<b>Lower Explosion Limit:</b>	No Data Available
<b>Upper Explosion Limit:</b>	No Data Available
<b>Vapor Pressure:</b>	17 mmHg @ 20 °C (68 °F) similar to water
<b>Vapor Density:</b>	No Data Available
<b>Density:</b>	No Data Available
<b>Relative Vapor Density:</b>	No Data Available
<b>Specific Gravity:</b>	1.2 – 1.5
<b>Solubility in Water:</b>	No Data Available
<b>Partition Coefficient: n-octanol/water:</b>	No Data Available
<b>Auto-ignition Temperature:</b>	No Data Available
<b>Decomposition Temperature:</b>	No Data Available
<b>Dynamic Viscosity:</b>	No Data Available
<b>Kinematic Viscosity:</b>	No Data Available

**SECTION 10. STABILITY AND REACTIVITY****Hazardous Reactions**

Hazardous polymerization does not occur.

**Stability**

Stable

**Materials to Avoid**

None known.

**Hazardous Decomposition Products**

By Thermal Decomposition: carbon monoxide, carbon dioxide, Acrylic monomers, other potentially toxic fumes

## SECTION 11. TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Skin Contact  
Eye Contact  
Ingestion  
Inhalation

### Health Effects and Symptoms

**Acute:** Causes serious eye irritation with symptoms of reddening, tearing, swelling, and burning., May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash.

**Chronic:** May cause cancer.

### Toxicity Data for Acrylic Flashing Grade

No data available for this product.

### Toxicity Data for Aluminum hydroxide

#### Acute Oral Toxicity

LD50: > 2000 mg/kg (rat, female) (OECD Test Guideline 423)

#### Skin Irritation

rabbit, OECD Test Guideline 404, Non-irritating

#### Eye Irritation

rabbit, OECD Test Guideline 405, Slightly irritating

#### Sensitization

Respiratory sensitization: negative (mouse)  
Studies of a comparable product.

Skin sensitization according to Magnusson/Kligmann (maximizing test): negative (guinea pig, OECD Test Guideline 406)

#### Repeated Dose Toxicity

28 Days, Oral: NOAEL: 14,470 ppm, (rat, male)

#### Mutagenicity

Genetic Toxicity in Vitro:

Mammalian cell - gene mutation assay: negative (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Micronucleus Assay: negative (rat, male/female, Oral) negative

#### Developmental Toxicity/Teratogenicity

rat, female, oral, NOAEL (teratogenicity): 1,000 mg/kg, No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested. rat, female, oral, GD 6-15, daily, NOAEL (teratogenicity): 266 mg/kg, No Teratogenic effects observed at doses tested. No fetotoxicity observed at doses tested.

### Toxicity Data for Titanium dioxide (Rutile)

#### Acute Oral Toxicity

LD50: > 5000 mg/kg (rat, female) (OECD Test Guideline 425)

**Acute Inhalation Toxicity**

LC50: > 6.82 mg/l, 4 h (rat, male)

**Acute Dermal Toxicity**

LD50: > 10000 mg/kg (rabbit)

**Skin Irritation**

rabbit, OECD Test Guideline 404, Exposure Time: 24 h, Non-irritating

**Eye Irritation**

rabbit, OECD Test Guideline 405, Non-irritating

**Sensitization**

dermal: non-sensitizer (Guinea pig, Maximization Test)

dermal: non-sensitizer (Human, Patch Test)

Skin sensitization (local lymph node assay (LLNA)):: negative (mouse, OECD Test Guideline 429)

**Repeated Dose Toxicity**

28 Days, inhalation: NOAEL: 35 mg/m<sup>3</sup>, (Rat)

29 days, Oral: NOAEL: 24,000 mg/kg, (rat, male, daily)

up to 2 years, inhalation: NOAEL: 0.01 mg/l, (Rat, male/female, 6 hrs/day 5 days/week)

**Mutagenicity**

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without)

Mammalian cell - gene mutation assay: negative (Mouse lymphoma cells (L5178Y/TK), Metabolic Activation: with/without)

Chromosome aberration test: negative (Chinese hamster ovary (CHO) cells, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: negative (Drosophila melanogaster) negative

Cytogenetic assay: negative (mouse, male, intraperitoneal) negative

**Carcinogenicity**

Rat, Male/Female, inhalation, according to IARC, several rat inhalation and intratracheal installation studies using titanium dioxide have shown increases in benign and malignant lung tumors. Reviewed human exposure data did not suggest an association between occupational exposure to titanium dioxide and risk for cancer. Additionally, the IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."

**Other Relevant Toxicity Information**

May cause irritation of respiratory tract.

**Toxicity Data for 1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-****Acute Oral Toxicity**

LD50: > 10000 mg/kg (rat)

**Acute Inhalation Toxicity**

LC50: 0.217 mg/l, 4 h (rat) (OECD Test Guideline 403)

**Acute Dermal Toxicity**

LD50: > 10000 mg/kg (rabbit)

**Skin Irritation**

rabbit, Draize, Non-irritating

**Eye Irritation** severe

irritant

**Sensitization**

Skin sensitization: sensitizer (Human)

**Toxicity Data for Ammonium Hydroxide****Acute Oral Toxicity**

LD50: 350 mg/kg (rat)

**Acute Inhalation Toxicity**

LC50: 2.87 mg/l, 4 h (rat)

**Skin Irritation**

Corrosive

**Eye Irritation**

Human, Severely irritating

**Sensitization**

Skin sensitization: negative

**Mutagenicity**

Genetic Toxicity in Vitro:

Ames: negative (E. coli, Metabolic Activation: without)

**Toxicity Data for Crystalline Quartz Silica****Acute Oral Toxicity**

LD50: 500 mg/kg (rat)

**Mutagenicity**

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies. (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Sister Chromatid Exchange: ambiguous (hamster) ambiguous

**Carcinogenicity**

rat, Male/Female, inhalation, 2 years, 6 hrs/day 5 days/week, positive

**Carcinogenicity:**

Titanium dioxide (Rutile)      **IARC** -      Overall evaluation:      2B Possibly carcinogenic to humans.

1,3-Benzenedicarbonitrile,      **IARC** -      Overall evaluation:      2B Possibly carcinogenic to humans.

2,4,5,6-tetrachloro-

Crystalline Quartz Silica      **NTP** -      Hazard Designation:      Known to be Human Carcinogen.

**IARC** -      Overall evaluation:      1 Carcinogenic to humans.



## SECTION 12. ECOLOGICAL INFORMATION

### Ecological Data for Titanium dioxide (Rutile)

#### **Acute and Prolonged Toxicity to Fish**

LC0: > 1,000 mg/l (Golden orfe (Leuciscus idus), 48 h)

#### **Acute Toxicity to Aquatic Invertebrates**

EC0: > 3 mg/l (Water flea (Daphnia magna))

#### **Toxicity to Microorganisms**

EC0: > 10,000 mg/l, (Pseudomonas fluorescens, 24 h)

### Ecological Data for Biocide

#### **Acute and Prolonged Toxicity to Fish**

LC50: 0.049 mg/l (Other fish)

LC50: 0.076 mg/l (Rainbow (Donaldson) Trout (Oncorhynchus mykiss), 96 h)

#### **Acute Toxicity to Aquatic Invertebrates**

EC50: 0.2 mg/l (Water flea (Daphnia magna))

### Ecological Data for Ammonium Hydroxide

#### **Additional Ecotoxicological Remarks**

No data available for this component.

## SECTION 13. DISPOSAL CONSIDERATIONS

### **Waste Disposal Method**

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

### **Container Precautions**

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

## SECTION 14. TRANSPORT INFORMATION

Non-Regulated

## SECTION 15. REGULATORY INFORMATION

### United States Federal Regulations

**US. Toxic Substances Control Act:** Listed on the TSCA Inventory.

### **US. EPA CERCLA Hazardous Substances (40 CFR 302) Components:**

None

### **SARA Section 311/312 Hazard Categories:**

Acute Health Hazard

Chronic Health Hazard

### **US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302**

#### **Extremely Hazardous Substance (40 CFR 355, Appendix A) Components:**

None

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required Components:**

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-

**US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261):**

Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous waste.

**State Right-To-Know Information**

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:**

<u>Weight percent</u>	<u>Components</u>	<u>CAS-No.</u>
>=1%	Water	7732-18-5
>=1%	Acrylic Polymer	
20 - 30%	Limestone	1317-65-3
10 - 20%	Aluminum hydroxide	21645-51-2
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

**New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:**

<u>Weight percent</u>	<u>Components</u>	<u>CAS-No.</u>
0.1 - 1%	Zinc Oxide	1314-13-2
0.1 - 1%	Ammonium Hydroxide	1336-21-6
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

**Massachusetts Right to Know Extraordinarily Hazardous Substance List:**

<u>Weight percent</u>	<u>Components</u>	<u>CAS-No.</u>
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

**California Prop. 65:**

Warning! This product contains chemical(s) known to the State of California to be Carcinogenic. Developmental toxin. Female reproductive toxin. Male reproductive toxin.

<u>Weight percent</u>	<u>Components</u>	<u>CAS-No.</u>
5 - 10%	Titanium dioxide (Rutile)	13463-67-7
0.1 - 1%	Crystalline Quartz Silica	14808-60-7

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).

**SECTION 16. OTHER INFORMATION**

The method of hazard communication for Marlin Coatings, LLC is comprised of Product Labels and Safety Data Sheets.

Contact: Product Safety Department  
Telephone: 832.922.2926  
Version Date: 06/30/2016  
SDS Version: 1.1

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