

1. PRODUCTS AND COMPANY IDENTIFICATION

Product Name: MS-Fireshield

Product Use: E-84 Class A Highly Reflective Acrylic Coating

Manufacturer/Supplier:

Milenium Solutions
785 W. Rialto Ave. Ste. G
Rialto, CA 92376

Web Address: www.mileniumsolutions.com

Medical Emergency:

CHEMTREC (USA): (800) 424-9300
CHEMTREC (International): (703) 527-3887
SDS Assistance: (909)440-5017
Technical Assistance: (909)440-5017

2. COMPONENT INFORMATION

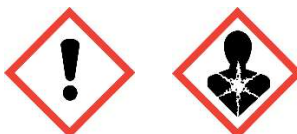
Classification (GHS-US)

Skin Irrit. 2 H315
Eye Irrit. 2A H319
STOT SE 3 H335
STOT RE 2 H373

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :



Signal Word (GHS-US) :

Warning

Hazard Statements (GHS-US) :

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

Precautionary Statements (GHS-US) :

P261 - Avoid breathing mist, spray, vapors
P264 - Wash hands, forearms, and exposed areas thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER/doctor/physician if you feel unwell
P321 - Specific treatment (see Section 4)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container according to local, regional, national, and international regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	Product identifier	% (w/w)	Classification (GHS-US)
Acrylic Polymer Solution		40-60	Skin Irrit. 2 Eye Irrit. 2A STOT SE 3

Propylene glycol	(CAS No) 07-55-6	0.1-1	Skin Irrit. 2 Eye Irrit 2 Toxicity 3
Cellulose, 2-hydroxyethyl ether	(CAS No) 9004-62-0	0.1 - 1	Comb. Dust Skin Irrit. 2, Eye Irrit. 2A
Ammonium Polyphosphate	(CAS No) 68333-79-9	15-30	Eye Irrit 1
Ammonium Hydroxide	(CAS No) 1336-21-6	0.1 - 1	Skin Irrit. 1B Eye irrit. 1 Target Organ: Respiratory Toxicity 3

*Indicates toxic chemicals subject to the reporting requirements of section 313 of Title III and of 40 CFR 372. Information concerning non-hazardous ingredients is considered a trade secret.

4. FIRST AID INFORMATION

Description of First Aid

Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Rinse mouth. Do NOT induce vomiting.

Most Important Symptoms and Effects Both Acute and Delayed

General: Irritation to eyes, skin and respiratory tract. Causes damage to organs (kidneys) (Oral).

Inhalation: May cause respiratory irritation. May cause drowsiness or dizziness.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: Ingestion may cause nausea, vomiting and diarrhea.

Chronic Symptoms: Causes damage to organs through prolonged or repeated exposure.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

5. FIRE AND EXPLOSION INFORMATION

Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide, dry chemical, foam, water spray, fog.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Not available

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Oxides of aluminum. Oxides of titanium.

Reference to Other Sections

Refer to section 9 for flammability properties.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Handle in accordance with good industrial hygiene and safety practice. **For**

Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

ENVIRONMENTAL PRECAUTIONS

Prevent entry to sewers and public waters.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Absorb and/or contain spill with inert material.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

7. HANDLING AND STORAGE INFORMATION

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Wash hands and forearms thoroughly after handling.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Incompatible Materials: None known.

Storage Temperature: > 0 °C (32°F)

Specific End Use(s) Acrylic base coat

8. EXPOSURE CONTROLS/PERSONAL PROTECTION INFORMATION

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal Protective Equipment: Gloves. Protective goggles.



Materials for Protective Clothing: Not available

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Other Information: When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	: Liquid
Appearance	: White
Odor	: Slight
Boiling Point	: 100 °C (212°F)
Auto-ignition Temperature	: < 204 (400°F)
Vapor Pressure	: > 1 mm Hg
Relative Vapor Density at 20 °C	: < 1
Solubility	: Soluble in water

Explosion Data – Sensitivity to Mechanical Impact : Not expected to present an explosion hazard due to mechanical impact.

Explosion Data – Sensitivity to Static Discharge : Not expected to present an explosion hazard due to static discharge.

10. STABILITY AND REACTIVITY INFORMATION

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Stable at standard temperature and pressure.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures.

Incompatible Materials: None known.

Hazardous Decomposition Products: When heated, material emits irritating fumes.

11. TOXICOLOGICAL INFORMATION (will only print available data)

INFORMATION ON TOXICOLOGICAL EFFECTS - PRODUCT

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified **Teratogenicity:** Not available

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation. May cause drowsiness or dizziness.

Symptoms/Injuries After Skin Contact: Causes skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation. **Symptoms/Injuries After Ingestion:** Ingestion may cause nausea, vomiting and diarrhea. **Chronic Symptoms:** Causes damage to organs through prolonged or repeated exposure. **Information on Toxicological Effects - Ingredient(s)**

LD50 and LC50 Data:

Ammonium Polyphosphate	
LD50 Oral	> 5000 mg/kg
Propylene glycol	
LD50 Oral	22000-30000 mg/kg
LD50 Dermal	2000 mg/kg
Ammonium Hydroxide	
LD 50 Oral	>2000 mg/kg
LD50 Dermal	>2000 mg/kg
LC-50 Vapor	>50 mg/l
Titanium dioxide (13463-67-7)	
IARC Group	2B

12. ECOLOGICAL INFORMATION

Ethylene glycol (107-21-1)	
LC50 Fish 1	41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Ammonium Hydroxide	
LC50	0.53 mg/L (Exposure time: 96 h)
EC50	0.66 mg/L (Exposure time; 48 h)
Bioaccumulative Potential:	
Propylene glycol	
Log Pow	-0.92

13. DISPOSAL INFORMATION

Regulatory Information: Consult all regulations (federal, state, provincial, local etc.) or a qualified waste disposal firm when characterizing waste for disposal.

Waste Disposal Methods: Mix the chemical with an inert material such as sand, vermiculite, etc. and place in a suitable container. Dispose of in accordance with Local Authority requirements.

14. TRANSPORTATION INFORMATION

DOT Proper Shipping Name: Not Regulated.

IATA Proper Shipping Name: Not Regulated.

IMO Proper Shipping Name: Not Regulated.

The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for all shipping descriptions.

International Information Ves-

sel: IMDG Not Regulated Air:

ICAO Not Regulated

Other: No other information available

15. Regulatory Information

Ammonium Hydroxide	
SARA 313 25-30% weight Threshold	1.0%
Listed on the United States TSCA	12(b)
Propylene Glycol	
SARA 313	n/a
TSCA	n/a
Titanium dioxide	
Listed on the United States TSCA (Toxic Substances Control Act)	inventory

Propylene Glycol	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) None present or none present in regulated quantities. US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) None present or none present in regulated quantities. CERCLA Hazardous Substance List (40 CFR 302.4): None present or none present in regulated quantities	
Titanium dioxide (13463-67-7)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

16. OTHER INFORMATION

Health and Environmental Label Language

All ingredients contained in this product are included on the US EPA Toxic Substances Control Act (TSCA) inventory or exempt from listing on the TSCA inventory. All ingredients contained in this product comply with the requirements of the Canadian Environmental Protection Act (CEPA) and are listed on the Domestic Substance List (DSL) or Non-Domestic Substance List (NDSL)

DISCLAIMER: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. This data and information is furnished upon the condition that the person receiving it shall make his own determination of the conditions for safe use of this product.

SDS Revisions

Previous Version Date: N/A

Revision Date: 04/07/22