

SAFETY DATA SHEET, revised 12 April 2019

6180 MFUA-12 White**1. PRODUCT AND COMPANY INFORMATION**

Trade name 6180 MFUA-12 Polyurea White (Part A)
 Product codes ZB6180, B6180, 6180, MFUA-12 White
 Chemical family Pigmented resin
 Intended use MFUA-12 traffic marking paint system

Company Colorado Paint Company II, LLC
 2851 N. Walden Street
 Aurora, CO 80011; U. S. A.

Telephone +1 303-388-9265
 Web site www.swarco.com/cpc
 Emergency (Chemtrec; 24 h) 1-800-424-9300 (U. S. A. and Canada)

2. HAZARD IDENTIFICATION**Emergency Overview****OSHA Hazards**

Target Organ Effect, Irritant

GHS Classification

Skin sensitization (Category 1)

GHS Label elements, including precautionary statements

Pictogram:

Signal word: Warning**Hazard statements**

H317 May cause an allergic skin reaction.

Precautionary statements

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water

P333 + P313 + P363 If skin irritation or a rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse

P391 Collect spillage.

P501 Dispose of contents/container in an approved waste disposal plant.

HMIS and NFPA Classification:

	HMIS	NFPA Hazard
Health	2	2
Flammability	1	1
Reactivity	1	1
Physical hazard	0	—

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3. COMPOSITION

Name	Synonym	CAS	EINECS	Concentration
Titanium dioxide	Titanium(IV) oxide	13463-67-7	236-675-5	20-26%
Polyaspartic Ester	Proprietary	Proprietary	n/a	30-40%
Polysecondaryamine mixture	Proprietary	Proprietary	n/a	30-40%
Aliphatic Carboxylic Ester	Diethyl Fumarate	623-91-6	210-819-7	1-2%

4. FIRST AID MEASURES

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.

Ingestion Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.

Inhalation If inhaled, remove to fresh air, Give artificial respiration if not breathing. Get medical attention if irritation develops.

5. FIRE FIGHTING MEASURES

Flash point 93.33 °C (>200 °F)

Flammable Limits in air (lower) Not available

Flammable Limits in air (upper) Not available

Autoignition temperature No information

Suitable Extinguishing MediaAll extinguishing media are suitable

Firefighting instructions 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.

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

6. ACCIDENTAL RELEASE MEASURES

Clean up personnel must use appropriate personal protective equipment. Cover spill with inert material (e.g, dry sand or earth) and collect for proper disposal. Prevent from entering open drains and waterways. Evacuate and keep unnecessary people out of spill area. Ventilate area to remove vapors or duct.

7. HANDLING AND STORAGE

Avoid contact with eyes, skin, or clothing. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Do not breathe vapours or spray mist.

Store in dry area in closed packaging, keep temperature between 0 °C / 32 °F- 50 °C / 122 °F and away from light, moisture/water and flames.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational exposure limits

Name	CAS	Occupational exposure limits (mg/m ³)				
		OSHA TLV ⁽¹⁾	ACGIH TLV ⁽²⁾	NIOSH PEL ⁽³⁾	OSHA STEL ⁽⁴⁾	EU ⁽⁵⁾
Titanium dioxide	13463-67-7	15	10	Fine particles: 2.4 Ultrafine particles: 0.3	n/a	4

The established limits are for respirable dust (total dust maximum is 15 mg/m³) only and are meaningless for the paint product as delivered, but applies while sanding or abrading dried coating.

Lower Respiratory Tract irritation. Slight lung fibrosis (carcinogenic in rats). Health Effect: Nuisance particulate, accumulation in lungs. Not classifiable as a human carcinogen. No increase in risk for lung cancer (or any other specific cause of death) among titanium dioxide manufacturing workers.

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No occupational exposure limits have been established for any other ingredients, which does not imply that they are not harmful or toxic. Unknown hazards may exist and/or the materials may have not been fully tested. The user is required to follow all of the good industrial hygiene practices.

(1) Occupational Safety and Health Administration (OSHA); Threshold Limit Value (8-hour time-weighted average) pursuant to (a) for general industry: 29 CFR 1910.1000 Table Z-1, (b) for construction industry: 29 CFR 1926.55 Appendix A, and (c) for maritime industry: 29 CFR 1915.1000 Table Z. (2) American Conference of Governmental Industrial Hygienists; Threshold Limit Value. (3) National Institute for Occupational Safety and Health; Recommended Exposure Limit. (4) OSHA Short Term Exposure Limit (STEL). (5) European Union exposure limit per UK EH40 Occupational Exposure Limit.

Ventilation

Use only where appropriate ventilation is available. This product is designed for outdoor use.

Personal protective equipment

Country specific exposure limits have not been established or are not applicable.

Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition product below appropriate airborne concentration standards/guidelines. Curing ovens must be ventilated to prevent the build up of explosive atmospheres and to prevent off gases from entering the work place.

Respiratory In Spray applications, an organic vapor/ particulate respirator or air supplied unit is necessary. The use of a positive pressure supplied air respirator is recommended if the airborne concentration is unknown or if spraying is performed in a confined space or area with limited ventilation.

Skin and bodyWear work clothing including long pants and long-sleeved shirts.

Eyes chemical Safety goggles or glasses with side shields.

Hand.....Permeation resistant gloves.

Other protectionEmployees 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 station should be available.

9. PHYSICAL PROPERTIES

Physical state	Liquid
Color	White
Odor	Mild
Boiling point	No data available
Freezing point	No data available
Flash point	93.33 °C (>200°F)
Upper explosion limit	No data available
Lower explosion limit	No data available
Solubility in water	Insoluble at 20°C
Vapor pressure	<0.000007 mmHg at 25°C
Density	1.3-1.35 g·cm ⁻³ at 25°C (10.7-11.3 lbs/gallon)
Viscosity	2,500 – 4,000 cP at 25 °C
pH	No data available

10. STABILITY AND REACTIVITY DATA

Stability Stable

Conditions to avoid Extreme heat

Materials to avoid Oxidizing agents

Hazardous polymerization does not occur

Hazardous decomposition products By Fire and Thermal Decomposition: Carbon oxides, nitrogen oxides, Amines, other aliphatic fragments which have not been determined, Ammonia gas may be liberated at high temperature..

11. TOXICOLOGICAL DATA

Eye - rabbitNon-irritating

Skin- rabbit.....Non-irritating

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Ingestion – acute oral low LD50 >2,000 mg/kg (Rat)
 Inhalation-LC 504923 mg/M3, aerosol, 4 h (Rat)
 Sensitization..... Maximisation Test (GPMT): non-sensitizer (Guinea pig)
 Mutagenicity Genetic Toxicity in Vitro: Ames: negative (Salmonella typhimurium)
 Toxicity Data for Aliphatic Carboxylic Ester... Acute Oral Toxicity LD 50: 1780mg/kg(Rat)

12. ECOLOGICAL DATA

Ecological Data for Aspartic Ester
 Biodegradation.....30%, Exposure time: 28D, Not readily biodegradable.
 Acute and Prolonged Toxicity to Fish.....LC0:87 mg/l(Zebra fish (Brachydanio rerio), 96 h)
 Acute Toxicity to Aquatic Invertebrates.....EC0: 96.8 mg/l (water flea(Daphnia magna), 48 h)
 Toxicity to Aquatic Plants.....EC50: >41.2-<84.2mg/l, (Green algae(Scenedesmus subspicatus), 72 h)
 Toxicity to Microorganisms.....EC50: >10,000 mg/l, (other bacteria)
 Ecological Data for Aliphatic Carboxylic Ester
 Acute and Prolonged Toxicity to Fish.....38 mg/l(Fathead minnow(Pimephales promelas), 96 h)

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
 Waste disposal should be in accordance with existing federal, state and local environmental control laws.
 Empty Containers Precautions
 Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning. Empty containers retain product residue (dust, liquid, vapor and /or gases) and can be dangerous. Do not heat or cut container with electric or gas torch.

14. TRANSPORTATION INFORMATION

Land transport (DOT) Not regulated.
 Sea transport (IMDG) Not regulated.
 Air transport (ICAO/IATA) Not regulated.

15. REGULATORY INFORMATION

TSCA and Canadian DSL Listed or exempt.
 OSHA Hazardous chemical.
 RCRA Not a hazardous waste under RCRA 40 CFR 261.
 SARA Title III This product does not contain any chemicals for routine annual toxic chemical release reporting under Section 302 (40 CFR 355).

California Proposition 65
This product contains chemicals known to the State of California to cause cancer.

Name	CAS
Titanium Dioxide	13463-67-7

16. ADDITIONAL INFORMATION

This safety data sheet complies with 29 CFR 1910.1200 and with EC 1907/2006, as amended.
 Last modified: August 18, 2015

Disclaimer

All information and data appearing on this Safety Data Sheet are provided in good faith and are believed to be reliable and accurate to the best of our knowledge at the date of publication. Although certain hazards are listed herein, there is no guarantee that these are only risks. None of the provided information is to be considered a warranty or quality specification or all-inclusive and is given only as guidance. It is the user's responsibility to determine the safety of use, handling, storage, transportation, disposal, and suitability for the intended utilisation of the product. Unless otherwise specified, the data provided herein is valid only for the described material and may be not applicable for the product used in combination with any other materials or processes. Colorado Paint Company / Swarco shall not be liable for any damage resulting from handling, contact, use, or inability to use of this product. No guarantee, expressed or implied, is made by Colorado Paint Company / Swarco and the user assumes all risk and responsibility.