

#### Section 1 - Product and Company Identification

**Trade Name:** EnduraShield 2301 Resin (All Versions)

**Product Code:** 2301-003-WH1A-01-RES

**Company:**

Wolverine Coatings Corporation  
5969 US Highway 221  
Roebuck, SC 29376  
+1 (864) 587-3144

**Emergency Contact:**

ChemTel 24 Hr. US Emergency Number:  
+1 (800) 255-3924  
ChemTel 24 Hr. Worldwide Emergency Number:  
+1 (813) 248-0585

**Product Use:** Coatings

**Not Recommended For:** None Identified

#### Section 2 - Hazards Identification

**GHS Ratings:**

Flammable liquid 3 Flash point  $\geq 23^{\circ}\text{C}$  and  $\leq 60^{\circ}\text{C}$  ( $140^{\circ}\text{F}$ )

**GHS Hazards:**

H226 Flammable liquid and vapour

**GHS Precautions:**

P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking  
P233 Keep container tightly closed  
P240 Ground/bond container and receiving equipment  
P241 Use explosion-proof electrical/ventilating/light/equipment  
P242 Use only non-sparking tools  
P243 Take precautionary measures against static discharge  
P280 Wear protective gloves/protective clothing/eye protection/face protection  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P370+P378 In case of fire: Use carbon dioxide, alcohol-resistant foam, dry chemical, dry sand, or water fog for extinction  
P403+P235 Store in a well ventilated place. Keep cool  
P501 Dispose of contents/container in accordance with all local, regional, national, and international regulations.

Signal Word: Warning



#### Section 3 - Composition / Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
Titanium Dioxide	13463-67-7	40.00% - 50.00%

n-Butyl acetate	123-86-4	10.00% - 20.00%
Calcium carbonate	1317-65-3	10.00% - 20.00%
2,4-Pentanedione	123-54-6	5.00% - 10.00%
Castor Oil	8001-79-4	5.00% - 10.00%
2-Heptanone	110-43-0	5.00% - 10.00%

#### Section 4 - First Aid Measures

**Inhalation:** If affected, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

**Eye Contact:** Immediately flush eyes for at least fifteen minutes with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. If eye irritation persists: Get medical advice/attention.

**Skin contact:** Immediately remove contaminated clothing and shoes. Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

**Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Get immediate medical attention.

#### Section 5 - Fire Fighting Measures

**Flash Point:** 36 C (97 F) LEL: 1.00 UEL: 11.00

**Extinguishing Media:** Use carbon dioxide, foam, dry chemical, dry sand, water fog, or limestone powder extinguishing systems.

**Unusual Fire and Explosion Hazards:** None

**Hazardous combustion products:** Irritating or toxic substances may be emitted upon burning, combustion or decomposition. See section 10 (Stability and Reactivity) for additional information.

**Special Fire Fighting Procedures:** Firefighters should be equipped with self-contained breathing apparatus.

**Fire Equipment:** No Data

#### Section 6 - Accidental Release Measures

**Spill And Leak Procedures:** Avoid all personal contact. Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Spills should be contained, solidified, and placed in suitable containers for disposal.

#### Section 7 - Handling and Storage

**Handling Precautions:** Use good laboratory/workplace procedures. Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities. Use under well-ventilated conditions. Avoid eye and skin contact. Avoid inhalation of aerosol, mist, spray, fume or vapor. Avoid drinking, tasting, swallowing or ingesting this product. Wash contaminated clothing before reuse. Discard shoes contaminated with this product.

**Storage Requirements:** Keep away from heat, sparks, and open flames. Store cool and dry, under well-ventilated conditions. Store this material away from incompatible substances (see section 10). Do not store in open, unlabeled or mislabeled containers. Keep container closed when not in use.

#### Section 8 - Exposure Controls / Personal Protection

Chemical Name / CAS #	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
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Titanium Dioxide 13463-67-7	TWA: 15 mg/m3	TWA: 10 mg/m3	Not Established
n-Butyl acetate 123-86-4	TWA- 150 ppm, 710 mg/m3	TLV: TWA- 150 ppm; STEL- 200 ppm	Not Established
Calcium carbonate 1317-65-3	Not Established	Not Established	Not Established
2,4-Pentanedione 123-54-6	Not Established	TLV: TWA- 25 ppm	Not Established
Castor Oil 8001-79-4	Not Established	Not Established	Not Established
2-Heptanone 110-43-0	TWA: 100 ppm	TWA (TLV): 50 ppm	Not Established

**Ventilation:** Good general mechanical ventilation and local exhaust is recommended.

**Hygiene:** Eye wash must be easily accessible. Wear protective clothing as necessary to prevent contact. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Gloves must be inspected regularly and prior to each use. Replace if necessary.

**Personal Protective Equipment:** Wear impervious protective gloves. Wear OSHA, NIOSH approved organic vapor respirator if ventilation is inadequate. Wear appropriate protective eyewear such as splash-proof, chemical resistant safety goggles.

**Contaminated Gear:** Take off all contaminated clothing immediately. Wash contaminated clothing before reuse.

## Section 9 - Physical and Chemical Properties

This mixture typically exhibits the following properties under normal circumstances:

<b>Appearance:</b> Liquid	<b>Odor:</b> Not available
<b>Vapor Pressure:</b> 4.4 mmHg	<b>Odor threshold:</b> Not available
<b>Vapor Density:</b> Not available	<b>pH:</b> Not available
<b>Density (g/cm3):</b> 1.42	<b>Melting point:</b> Not available
<b>Freezing point:</b> Not available	<b>Solubility:</b> Not available
<b>Boiling range:</b> Not available	<b>Flash point:</b> 36°C, 97°F
<b>Evaporation rate:</b> Not available	<b>Flammability:</b> Not available
<b>Explosive Limits:</b> Not available	<b>Partition coefficient (n-octanol/water):</b> Not available
<b>Autoignition temperature:</b> Not available	<b>Decomposition temperature:</b> Not available
<b>Viscosity:</b> Not available	<b>Grams VOC less water:</b> Not available

## Section 10 - Stability and Reactivity

### Stability:

STABLE

### Components of this mixture are incompatible with the following materials:

- Strong Acids
- Strong Bases
- Strong Reducing Agents
- Strong Oxidizers
- Metals

**This mixture is likely to exhibit the following combustion products:**

Carbon Dioxide, Carbon Monoxide

Hazardous polymerization will not occur.

**Section 11 - Toxicological Information**

**Mixture Toxicity:**

Oral Toxicity LD50: 4,154mg/kg  
Dermal Toxicity LD50: 4,082mg/kg  
Inhalation Toxicity LC50: 7mg/L

**Component Toxicity:**

13463-67-7	Titanium Dioxide Inhalation LC50: 7 mg/kg (Rat)
123-86-4	n-Butyl acetate Inhalation LC50: 21 mg/L (rat)
1317-65-3	Calcium carbonate Oral LD50: 2,000 mg/kg (rat) Dermal LD50: 2,000 mg/kg (rat) Inhalation LC50: 3 mg/L (rat)
123-54-6	2,4-Pentanedione Oral LD50: 760 mg/kg (rat) Dermal LD50: 790 mg/kg (rabbit) Inhalation LC50: 5 mg/L (rat)
110-43-0	2-Heptanone Oral LD50: 1,600 mg/kg (rat) Dermal LD50: 5,000 mg/kg (rat) Inhalation LC50: 17 mg/L (rat)

**Routes of Entry:**

Inhalation      Skin Contact      Eye Contact      Ingestion

**Exposure to this material may affect the following organs:**

No Data

The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing):

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
None			No Data

**Section 12 - Ecological Information**

**Component Ecotoxicity:**

Titanium Dioxide	LC50 >1000 mg/l fish 96h; EC50 >1000 mg/l water flea 48h; EC50 >100 mg/l algae 72h
n-Butyl acetate	LC50 18 mg/l fish 96h; EC50 44 mg/l water flea 48h; EC50 674.7 mg/l algae 72h
2,4-Pentanedione	LC50 106 mg/l fish 96h; EC50 40 mg/l water flea 24h
2-Heptanone	LC50 137 mg/l fish 96h; EC50 >90.1 mg/l water flea 48h; EC50 98.2 mg/l algae 72h

**Section 13 - Disposal Considerations**

**Waste disposal Methods:** Dispose in accordance with Federal, State and Local regulations.

**Section 14 - Transport Information**

This material is classified for transport as follows:

<b>Agency</b>	<b>Proper Shipping Name</b>	<b>UN Number</b>	<b>Packing Group</b>	<b>Hazard Class</b>
DOT	Paint Related Material, Flammable	1263	III	3

IATA

IMDG

## Section 15 - Regulatory Information

**Additional regulatory listings, where applicable:**

<b>Country</b>	<b>Regulation</b>	<b>All Components Listed</b>
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### **EU Risk Phrases**

#### **Safety Phrase**

Toxic Substances Control Act (TSCA): All chemicals except those listed below appear in the Toxic Substances Control Act Chemical Substance Inventory:

No Data

EPA SARA Title III Section 313 ( 40 CFR 372) compnenets above 'de minimum' level:

## Section 16 - Other Information

For further information, please contact the Product Safety director. The information and recommendations contained herein are, 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 that exist. Final determination of suitability of the chemical is the sole responsibility of the user. Users of any chemical should satisfy themselves that the conditions and methods of use assure that the chemical is used safely. 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 to the chemical to which the user refers.

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