

#### Section 1 - Product and Company Identification

**Trade Name:** ChemShield 1837 Resin (All Versions)

**Product Code:** ChemShield 1837-080 RD3A-02 Resin

**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:**

Oral Toxicity	Acute Tox. 4	Oral>300+<=2000mg/kg
Skin Corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation
Eye Corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days
Respiratory sensitizer	1	Respiratory sensitizer
Skin Sensitizer	1	Skin Sensitizer
Mutagen	1B	Known to produce heritable mutations in human germ cells Subcategory 1B, Positive results: In vivo heritable germ cell tests in mammals, Human germ cell tests, In vivo somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity
Carcinogen	1A	Known Human Carcinogen Based on human evidence

**GHS Hazards**

H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H340	May cause genetic defects
H350	May cause cancer

**GHS Precautions**

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P285	In case of inadequate ventilation wear respiratory protection
P321	Specific treatment (see label)
P330	Rinse mouth
P362	Take off contaminated clothing and wash before reuse

P363 Wash contaminated clothing before reuse  
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P302+P352 IF ON SKIN: Wash with soap and water  
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing  
P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
P308+P313 IF exposed or concerned: Get medical advice/attention  
P332+P313 If skin irritation occurs: Get medical advice/attention  
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention  
P337+P313 Get medical advice/attention  
P342+P311 Call a POISON CENTER or doctor/physician  
P405 Store locked up  
P501 Dispose of contents/container in accordance with all local, regional, national, and international regulations.

**Signal Word:** Danger



### Section 3 - Composition / Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
Epoxy Phenol Novalac Resin	28064-14-4	50.00% - 60.00%
1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8	10.00% - 20.00%
Diiron trioxide	1309-37-1	5.00% - 10.00%
Quartz	14808-60-7	5.00% - 10.00%
Glass oxide	65997-17-3	5.00% - 10.00%
2-(Hydroxymethyl)furan	98-00-0	1.00% - 5.00%
Trade Secret		1.00% - 5.00%
Trade Secret		1.00% - 5.00%

### 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:** 175 C (347 F)

**LEL:**

**UEL:** 16.00

**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
Epoxy Phenol Novalac Resin 28064-14-4	Not Established	Not Established	Not Established
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Not Established	Not Established	Not Established
Diiron trioxide 1309-37-1	PEL: 15 mg/m <sup>3</sup>	TLV-TWA: 10 mg/m <sup>3</sup>	Not Established
Quartz 14808-60-7	TWA30 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2 total dust TWA: 10 mg/m <sup>3</sup> /%SiO <sub>2</sub> +2 respirable fraction	TWA: 0.025 mg/m <sup>3</sup>	Not Established
Glass oxide 65997-17-3	PEL-TWA: 5 mg/m <sup>3</sup>	Not Established	Not Established
2-(Hydroxymethyl)furan 98-00-0	TWA- 10 ppm, 40 mg/m <sup>3</sup> ; STEL- 15 ppm, 60 mg/m <sup>3</sup>	TWA- 10 ppm; STEL- 15 ppm	Not Established
Trade Secret	Not Established	Not Established	Not Established
Trade Secret	TLV-TWA: 15 mg/m <sup>3</sup> (total particles), 5 mg/m <sup>3</sup> (respirable particles)	TLV-TWA: 10 mg/m <sup>3</sup> (total particles), 3 mg/m <sup>3</sup> (respirable particles)	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> 0.85 mmHg	<b>Odor threshold:</b> Not available
<b>Vapor Density:</b> Not available	<b>pH:</b> Not available
<b>Density (g/cm<sup>3</sup>):</b> 1.38	<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> 175°C, 347°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  
Oxygen  
Strong Oxidizers  
Amines  
Alkalies  
Strong Bases

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

Carbon Dioxide, Carbon Monoxide  
Phenol  
Smoke  
Aldehydes  
Methanol  
Silicon oxides

Hazardous polymerization will not occur.

## Section 11 - Toxicological Information

### Mixture Toxicity:

Oral Toxicity LD50: 1,742mg/kg  
Inhalation Toxicity LC50: 259mg/L

**Component Toxicity:**

28064-14-4	Epoxy Phenol Novalac Resin Oral LD50: 2,000 mg/kg (rat)
2425-79-8	1,4-Bis(2,3-epoxypropoxy)butane Oral LD50: 1,163 mg/kg (rat) Dermal LD50: 1,130 mg/kg (rabbit) Inhalation LC50: 250 ppm
1309-37-1	Diiron trioxide Oral LD50: 5,000 mg/kg (rat)
98-00-0	2-(Hydroxymethyl)furan Oral LD50: 177 mg/kg (rat) Dermal LD50: 400 mg/kg (rabbit) Inhalation LC50: 2 mg/L (rat)

**Routes of Entry:**

Inhalation      Skin Contact      Eye Contact      Ingestion

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

Lungs      Respiratory System

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>
14808-60-7	Quartz	5 to 10%	Quartz: If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

**Section 12 - Ecological Information****Component Ecotoxicity:**

Epoxy Phenol Novalac Resin	LC50 10 mg/l fish 96h; EC50 10 mg/l water flea 48h
1,4-Bis(2,3-epoxypropoxy)butane	LC50 24 mg/l fish 96h; EC50 76 mg/l water daphnia 24h; EC50 160 mg/l algae 72h
Diiron trioxide	LC50 50000 mg/l fish 96h
Quartz	LC50 >10,000 mg/l fish 72h; EC50 7600 mg/L water flea 48h; EC50 440mg/L algae, 72h;
2-(Hydroxymethyl)furan	EC50 101 mg/l water flea 24h; EC50 101 mg/l algae 96h
Trade Secret	LC50 55 mg/l fish 96h; EC50 473 mg/l daphnia 48h; EC50 255 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:

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	Non-Regulated	NA	NA	NA
IATA	No data			
IMDG	No data			

**Section 15 - Regulatory Information**

**Additional regulatory listings, where applicable:**

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

WARNING! This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

Quartz 14808-60-7

**Materials not included on the Canada DSL inventory:**

- None

**Commonwealth of Massachusetts "Right to Know":** This product contains the following toxic or hazardous substances which appear on the Massachusetts Substance List:

2-(Hydroxymethyl)furan 98-00-0

Quartz 14808-60-7

Diiron trioxide 1309-37-1

**NJ "Right to Know":** This product contains the following toxic or hazardous substances which appear on the New Jersey Substance List:

Trade Secret

2-(Hydroxymethyl)furan 98-00-0

Quartz 14808-60-7

Diiron trioxide 1309-37-1

**Pennsylvania "Right to Know":** This product contains the following toxic or hazardous substances which appear on the Pennsylvania Substance List:

Trade Secret

2-(Hydroxymethyl)furan 98-00-0

Quartz 14808-60-7

Diiron trioxide 1309-37-1

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

- None

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

- None

**Country**

**Regulation**

**All Components Listed**

**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:

- None

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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