



ChemShield 1731 Resin

(Part A)

Safety Data Sheet (SDS)

Section 1 - Product and Company Identification

Trade Name: ChemShield 1731 Resin (All Versions)

Product Code: ChemShield 1731-125 GY4B-01 Resin

Company:

Wolverine Coatings Corporation
5969 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:

Skin Corrosive	2	Reversible adverse effects in dermal tissue, Draize score: $\geq 2.3 < 4.0$ 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	2	Suspected/Possible: May include heritable mutations in human germ cells, Positive evidence from tests in mammals and somatic cell tests, In vivo somatic genotoxicity supported by in vitro mutagenicity
Carcinogen	1A	Known Human Carcinogen Based on human evidence
Aquatic toxicity	NONE	

GHS Hazards

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
H341	Suspected of causing 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
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)
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
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	30.00% - 40.00%
Quartz	14808-60-7	20.00% - 30.00%
Glass oxide	65997-17-3	10.00% - 20.00%
Bisphenol F epoxy resin	9003-36-5	5.00% - 10.00%
Titanium Dioxide	13463-67-7	5.00% - 10.00%
1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8	1.00% - 5.00%
Trade Secret		1.00% - 5.00%
Cresyl glycidyl ether, ortho	2210-79-9	1.00% - 5.00%
Benzyl Alcohol	100-51-6	1.00% - 5.00%
Trade Secret		1.00% - 5.00%
Trade Secret		1.00% - 5.00%
Carbon mesoporous	1333-86-4	0.10% - 1.00%

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: 100 C (212 F)

LEL:

UEL: 13.00

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
Quartz 14808-60-7	TWA30 mg/m3 / %SiO2+2 total dust TWA: 10 mg/m3 /%SiO2+2 respirable fraction	TWA: 0.025 mg/m3	Not Established
Glass oxide 65997-17-3	PEL-TWA: 5 mg/m3	Not Established	Not Established
Bisphenol F epoxy resin 9003-36-5	Not Established	Not Established	Not Established
Titanium Dioxide 13463-67-7	TWA: 15 mg/m3	TWA: 10 mg/m3	Not Established
1,4-Bis(2,3-epoxypropoxy) butane 2425-79-8	Not Established	Not Established	Not Established
Trade Secret	Not Established	Not Established	Not Established

Cresyl glycidyl ether, ortho 2210-79-9	Not Established	Not Established	Not Established
Benzyl Alcohol 100-51-6	Not Established	Not Established	Not Established
Trade Secret	TLV-TWA: 15 mg/m3(total particles), 5 mg/m3 (respirable particles)	TLV-TWA: 10 mg/m3 (total particles), 3 mg/m3 (respirable particles)	Not Established
Trade Secret	Not Established	Not Established	Not Established
Carbon mesoporous 1333-86-4	OEL-TWA: 3.5 mg/m3	TLV-TWA: 3.5 mg/m3	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:

Appearance: Liquid	Odor: Not available
Vapor Pressure: 1.0 mm Hg	Odor threshold: Not available
Vapor Density: Not available	pH: Not available
Density (g/cm3): 1.51	Melting point: Not available
Freezing point: Not available	Solubility: Not available
Boiling range: Not available	Flash point: 100°C, 212°F
Evaporation rate: Not available	Flammability: Not available
Explosive Limits: Not available	Partition coefficient (n-octanol/water): Not available
Autoignition temperature: Not available	Decomposition temperature: Not available
Viscosity: Not available	Grams VOC less water: Not available

Section 10 - Stability and Reactivity

Stability:

STABLE

Components of this mixture are incompatible with the following materials:

- Strong Oxidizers
- Strong Acids
- Organic Acids
- Mineral Acids
- Peroxides
- Sodium Hypochlorite
- Strong Bases
- Amines

Alkalies

This mixture is likely to exhibit the following combustion products:

- Carbon Dioxide, Carbon Monoxide
- Methanol
- Silicon oxides
- Biphenyls
- Nitrogen Oxides
- Ammonia
- Smoke
- Aldehydes
- Phenol

Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Mixture Toxicity:

- Oral Toxicity LD50: 4,847mg/kg
- Inhalation Toxicity LC50: 356mg/L

Component Toxicity:

- 28064-14-4 Epoxy Phenol Novalac Resin
Oral LD50: 2,000 mg/kg (rat)
- 13463-67-7 Titanium Dioxide
Inhalation LC50: 7 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
- 2210-79-9 Cresyl glycidyl ether, ortho
Dermal LD50: 2,010 mg/kg (Rabbit)
- 100-51-6 Benzyl Alcohol
Oral LD50: 1,620 mg/kg (Rat) Dermal LD50: 2,010 mg/kg (Rabbit) Inhalation LC50: 4 mg/L
- 1333-86-4 Carbon mesoporous
Dermal LD50: 3,000 mg/kg (rabbit)

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):

CAS Number	Description	% Weight	Carcinogen Rating
14808-60-7	Quartz	20 to 30%	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.

Carbon mesoporous: 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
Quartz	LC50 >10,000 mg/l fish 72h; EC50 7600 mg/L water flea 48h; EC50 440mg/L algae, 72h;
Titanium Dioxide	LC50 >1000 mg/l fish 96h; EC50 >1000 mg/l water flea 48h; EC50 >100 mg/l algae 72h
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
Cresyl glycidyl ether, ortho	LC50 5.1 mg/L Fish 96h; EC50 2.8 mg/L water flea 48h; EC50 5.1 mg/L Algae 72h
Benzyl Alcohol	LC50 460 mg/l fish 96 h; EC50 360 ppm water flea 48 h; EC50 640 mg/l algae 96 h; EC10 658 mg/l bacteria 16 h
Trade Secret	LC50 55 mg/l fish 96h; EC50 473 mg/l daphnia 48h; EC50 255 mg/l algae 72h
Carbon mesoporous	LC50 1000 mg/l fish 96h; EC50 5600 mg/l water flea 24h; EC50 10000 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	N/A	N/A	N/A
IATA				
IMDG				

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:

- Carbon mesoporous 1333-86-4
- Titanium Dioxide 13463-67-7
- 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:

Carbon mesoporous 1333-86-4
Benzyl Alcohol 100-51-6
Titanium Dioxide 13463-67-7
Quartz 14808-60-7

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

Carbon mesoporous 1333-86-4
Trade Secret
Benzyl Alcohol 100-51-6
Cresyl glycidyl ether, ortho 2210-79-9
Titanium Dioxide 13463-67-7
Quartz 14808-60-7

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

Carbon mesoporous 1333-86-4
Trade Secret
Benzyl Alcohol 100-51-6
Cresyl glycidyl ether, ortho 2210-79-9
Titanium Dioxide 13463-67-7
Quartz 14808-60-7

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) components 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.

