

#### Section 1 - Product and Company Identification

**Trade Name:** ChemShield 1743 Hardener (All Versions) **Product Code:** ChemShield 1743-040 NEU Hardener

**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	1B	Destruction of dermal tissue: Exposure < 1 hour Observation < 14 days, visible necrosis in at least one animal
Eye Corrosive	1	Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity >= 3, Iritis > 1.5
Skin Sensitizer	1	Skin Sensitizer
Mutagen	1B	Known to produce heritable mutations in human germ cellsSubcategory 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
Reproductive Toxin	2	Human or animal evidence possibly with other information

**GHS Hazards**

H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H340	May cause genetic defects
H361	Suspected of damaging fertility or the unborn child

**GHS Precautions**

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P260	Do not breathe dust/fume/gas/mist/vapours/spray
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
P310	Immediately call a POISON CENTER or doctor/physician
P321	Specific treatment (see label)
P363	Wash contaminated clothing before reuse
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P302+P352	IF ON SKIN: Wash with soap and water
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340 IF INHALED: 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  
 P333+P313 If skin irritation or a rash occurs: Get medical advice/attention  
 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 %
Aluminum Oxide	1344-28-1	20.00% - 30.00%
Amorphous alumino silicate	1327-36-2	10.00% - 20.00%
Titanium Dioxide	13463-67-7	5.00% - 10.00%
Benzyl Alcohol	100-51-6	5.00% - 10.00%
Cycloaliphatic amines		5.00% - 10.00%
Methylenebiscyclohexanamine, 4,4'-	1761-71-3	5.00% - 10.00%
Mullite	1302-93-8	1.00% - 5.00%
Trade Secret		1.00% - 5.00%
Trade Secret		1.00% - 5.00%
Trade Secret		1.00% - 5.00%
Silicones and Siloxanes, dimethyl-, reaction products with silica	67762-90-7	1.00% - 5.00%
Amorphous Silica	112926-00-8	1.00% - 5.00%
Quartz	14808-60-7	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:** 108 C (226 F)

LEL: 1.00

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
Aluminum Oxide 1344-28-1	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> Respirable fraction	TWA: 1 mg/m <sup>3</sup>	Not Established
Amorphous alumino silicate 1327-36-2	Not Established	Not Established	Not Established
Titanium Dioxide 13463-67-7	TWA: 15 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	Not Established
Benzyl Alcohol 100-51-6	Not Established	Not Established	Not Established
Cycloaliphatic amines	Not Established	Not Established	Not Established
Methylenebiscyclohexana mine, 4,4'- 1761-71-3	Not Established	Not Established	Not Established
Mullite 1302-93-8	Not Established	TLV: TWA 1 mg/m <sup>3</sup>	Not Established

Trade Secret	Not Established	Not Established	Not Established
Trade Secret	Not Established	Not Established	Not Established
Trade Secret	Not Established	Not Established	Not Established
Silicones and Siloxanes, dimethyl-, reaction products with silica 67762-90-7	PEL: 6 mg/m3	TWA: 10 mg/m3 Inhalable	Not Established
Amorphous Silica 112926-00-8	OEL-TWA: 80 mg/m3	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

**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> 6.8 mm Hg	<b>Odor threshold:</b> Not available
<b>Vapor Density:</b> Not available	<b>pH:</b> Not available
<b>Density (g/cm3):</b> 1.16	<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> 108 C, 226 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 Oxidizers  
Caustic Soda and other Strong Alkalies  
Acid chlorides  
Acid anhydrides  
Organic Acids  
Mineral Acids  
Peroxides  
Sodium Hypochlorite

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

Carbon Dioxide, Carbon Monoxide  
Biphenyls  
Nitrogen Oxides  
Ammonia

Hazardous polymerization will not occur.

**Section 11 - Toxicological Information**

**Mixture Toxicity:**

Oral Toxicity LD50: 2,173mg/kg  
Dermal Toxicity LD50: 4,333mg/kg  
Inhalation Toxicity LC50: 6mg/L

**Component Toxicity:**

1344-28-1	Aluminum Oxide Inhalation LC50: 3 mg/L (Rat)
13463-67-7	Titanium Dioxide Inhalation LC50: 7 mg/kg (Rat)
100-51-6	Benzyl Alcohol Oral LD50: 1,620 mg/kg (Rat) Dermal LD50: 2,010 mg/kg (Rabbit) Inhalation LC50: 4 mg/L (Rat)
1761-71-3	Methylenebis(cyclohexyl)amine, 4,4'- Oral LD50: 380 mg/kg (rat) Dermal LD50: 1,000 mg/kg (rabbit)
1302-93-8	Mullite Inhalation LC50: 2 mg/L (rat)
67762-90-7	Silicones and Siloxanes, dimethyl-, reaction products with silica Dermal LD50: 2,100 mg/kg (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):

<b>CAS Number</b>	<b>Description</b>	<b>% Weight</b>	<b>Carcinogen Rating</b>
14808-60-7	Quartz	0.1 to 1.0%	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:**

Titanium Dioxide	LC50 >1000 mg/l fish 96h; EC50 >1000 mg/l water flea 48h; EC50 >100 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
Cycloaliphatic amines	LC50 100 mg/l fish 96h; EC50 6.84 mg/l daphnia 48h; EC50 200 mg/l algae 72h
Methylenebiscyclohexanamine, 4,4'-	LC50 67.8 mg/l fish 96h; EC50 9.24 mg/l water flea 48h; EC50 200 mg/l algae 72h; EC50 156 mg/l bacteria 30m
Trade Secret	LC50 87.6 mg/l fish 96h; EC50 15.2 mg/l water flea 48h; EC50 32.1 mg/l algae 72h; EC50 >1000 mg/l Bacteria 30h
Trade Secret	LC50 934 mg/l fish 96h; EC50 331 mg/l water flea 48h; EC50 1000 mg/l algae 72h; EC50 43 mg/l bacteria 5.75h
Silicones and Siloxanes, dimethyl-, reaction products with silica	LC50 >10,000 mg/l fish 96h; EC50 >1000 mg/l water flea 24h
Quartz	LC50 >10,000 mg/l fish 72h; EC50 7600 mg/L water flea 48h; EC50 440mg/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	Paint Related Material, Corrosive	3066	III	8
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:

Quartz 14808-60-7

Titanium Dioxide 13463-67-7

#### 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:

Quartz 14808-60-7

Amorphous Silica 112926-00-8

Trade Secret

Benzyl Alcohol 100-51-6

Titanium Dioxide 13463-67-7

Aluminum Oxide 1344-28-1

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

Quartz 14808-60-7

Amorphous Silica 112926-00-8

Trade Secret  
Trade Secret  
Mullite 1302-93-8  
Methylenebiscyclohexanamine, 4,4'- 1761-71-3  
Cycloaliphatic amines  
Benzyl Alcohol 100-51-6  
Titanium Dioxide 13463-67-7  
Amorphous alumino silicate 1327-36-2  
Aluminum Oxide 1344-28-1

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

Quartz 14808-60-7  
Amorphous Silica 112926-00-8  
Trade Secret  
Trade Secret  
Mullite 1302-93-8  
Methylenebiscyclohexanamine, 4,4'- 1761-71-3  
Cycloaliphatic amines  
Benzyl Alcohol 100-51-6  
Titanium Dioxide 13463-67-7  
Amorphous alumino silicate 1327-36-2  
Aluminum Oxide 1344-28-1

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

Aluminum Oxide 1344-28-1

**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.

Date Revised: 2019-11-25

Revision #: 1