



VersaHard 9590 Hardener

(Part B)

Safety Data Sheet (SDS)

Section 1 - Product and Company Identification

Trade Name: VersaHard 9590 Hardener (All Versions)

Product Code: 9590-000-CL0A-01-HAR

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:

Acute Toxicity - Inhalation	4	Gases>2500+<=20000ppm, Vapors>10+<=20mg/l, Dusts&mists>1+<=5mg/l
Skin corrosion/irritation	1B	Destruction of dermal tissue: Exposure < 1 hour Observation < 14 days, visible necrosis in at least one animal
Serious eye damage/eye irritation	1	Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity >= 3, Iritis > 1.5
Respiratory sensitization	1	Respiratory sensitizer
Skin sensitization	1	Skin Sensitizer
Germ cell mutagenicity	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
Reproductive toxicity	2	Human or animal evidence possibly with other information
Acute aquatic toxicity	C3	

GHS Hazards:

H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341	Suspected of causing 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
P271	Use only outdoors or in a well-ventilated area
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
P310	Immediately call a POISON CENTER or doctor/physician
P312	Call a POISON CENTER or doctor/physician if you feel unwell
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
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
P333+P313	If skin irritation or a rash occurs: 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 %
Nonylphenol	84852-15-3	30.00% - 40.00%
alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl))	9046-10-0	30.00% - 40.00%
TOFA, reaction products with TEPA	68953-36-6	5.00% - 10.00%
Trade Secret		1.00% - 5.00%
1-(2-Aminoethyl)piperazine	140-31-8	1.00% - 5.00%
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	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: 136 C (277 F)

LEL: 1.00

UEL: 9.00

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
Nonylphenol 84852-15-3	Not Established	Not Established	Not Established
alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)-poly(oxy(methyl-1,2-ethanediyl)) 9046-10-0	Not Established	Not Established	Not Established
TOFA, reaction products with TEPA 68953-36-6	Not Established	Not Established	Not Established
Trade Secret	Not Established	TLV-TWA: 1 ppm	Not Established
1-(2-Aminoethyl)piperazine 140-31-8	Not Established	Not Established	Not Established
Phenol, 4,4'-(1-methylethylidene)bis- 80-05-7	Not Established	Not Established	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:	0.44 mm Hg	Odor threshold:	Not available
Vapor Density:	Not available	pH:	Not available
Density (g/cm3):	0.96	Melting point:	Not available
Freezing point:	Not available	Solubility:	Not available
Boiling range:	Not available	Flash point:	136°C, 277°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
Carbon disulfide
Strong Acids
Strong Bases
Organic Acids
Mineral Acids
Sodium Hypochlorite
Peroxides
Nitrous acid
Nitrous oxide
Nitrosating Agents
Galvanized Surfaces

This mixture is likely to exhibit the following combustion products:

Nitric Acid
Ammonia
Carbon Dioxide, Carbon Monoxide
Nitrosamine

Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Mixture Toxicity:

Oral Toxicity LD50: 2,156mg/kg
 Dermal Toxicity LD50: 2,643mg/kg
 Inhalation Toxicity LC50: 2mg/L

Component Toxicity:

84852-15-3 Nonylphenol
 Oral LD50: 1,412 mg/kg (Rat) Dermal LD50: 2,031 mg/kg (Rabbit)

9046-10-0 alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl))
 Oral LD50: 2,885 mg/kg (rat) Dermal LD50: 2,980 mg/kg (rabbit) Inhalation LC50: 1 mg/L (rat)

68953-36-6 TOFA, reaction products with TEPA
 Oral LD50: 2,000 mg/kg (rat)
 Trade Secret
 Oral LD50: 1,080 mg/kg (rat) Dermal LD50: 1,090 mg/kg (rabbit) Inhalation LC50: 0 mg/L (rat)

140-31-8 1-(2-Aminoethyl)piperazine
 Oral LD50: 2,097 mg/kg (rat) Dermal LD50: 866 mg/kg (rabbit)

80-05-7 Phenol, 4,4'-(1-methylethylidene)bis-
 Oral LD50: 5,000 mg/kg (rat) Inhalation LC50: 170 mg/m3 (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:**

Nonylphenol LC50 0.209 mg/l fish 96h; EC50 0.0844 mg/l water flea 48h

alpha-(2-Aminomethylethyl)-omega-(2-LC50 772.14 mg/l fish 96h; EC50 418.34 mg/l Water Flea 48h; EC50 15 aminomethylethoxy)- poly(oxy(methyl-mg/l algae 72h; EC50 750 mg/l Bacteria 3h 1,2-ethanediyl))

Trade Secret LC50 1014 mg/l fish 96h

1-(2-Aminoethyl)piperazine LC50 2190 mg/l fish 96h; EC50 58 mg/l water flea 48h; EC50 495 mg/l algae 72h; EC50 511 mg/l bacteria 2h

Phenol, 4,4'-(1-methylethylidene)bis- LC50 4.6 mg/l fish 96h; EC50 10.2 mg/l water flea 48h; EC50 3.1 mg/l algae 96h

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:

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:

No Data

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.

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