



MetallicFX 1111 Hardener

(Part B)

Safety Data Sheet (SDS)

Section 1 - Product and Company Identification

Trade Name: MetallicFX 1111 Hardener (All Versions)

Product Code: MetallicFX 1111 CLR 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:

Oral Toxicity	Acute Tox. 4	Oral>300+<=2000mg/kg
Inhalation Toxicity	Acute Tox. 4	Gases >2500+<=5000ppm, Vapors >10+<=20mg/l, Dusts & Mists>1+<=5mg/l
Skin Corrosive	1A	Destruction of dermal tissue: Exposure < 3 min. Observation < 1 hour, 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 Mutagen	1 2	Skin Sensitizer 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 Toxin	2	Human or animal evidence possibly with other information
Aquatic toxicity	C3	Acute toxicity > 10.0 but <= 100.0 mg/l and lack of rapid degradability and log Kow >= 4 unless BCF < 500 and unless chronic toxicity > 1 mg/l

GHS Hazards

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H332	Harmful if inhaled
H341	Suspected of causing genetic defects
H361	Suspected of damaging fertility or the unborn child
H412	Harmful to aquatic life with long lasting effects

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
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P272	Contaminated work clothing should not be allowed out of the workplace

P273	Avoid release to the environment
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
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P321	Specific treatment (see label)
P330	Rinse mouth
P363	Wash contaminated clothing before reuse
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
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 %
Nonylphenol	84852-15-3	40.00% - 50.00%
Isophorone Diamine	2855-13-2	10.00% - 20.00%
alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl))	9046-10-0	10.00% - 20.00%
Bisphenol A diglycidyl ether resin	25068-38-6	5.00% - 10.00%
Trade Secret		5.00% - 10.00%
2,2'-[1,2-ethanediylbis(oxy)]bis-	929-59-9	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: 150 C (302 F)

LEL: 1.00

UEL: 5.00

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
Isophorone Diamine 2855-13-2	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
Bisphenol A diglycidyl ether resin 25068-38-6	Not Established	Not Established	Not Established
Trade Secret	Not Established	Not Established	Not Established
2,2'-(1,2-ethanediylbis(oxy))bis- 929-59-9	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: 0.22 mm Hg	Odor threshold: Not available
Vapor Density: Not available	pH: Not available
Density (g/cm3): 0.97	Melting point: Not available
Freezing point: Not available	Solubility: Not available
Boiling range: Not available	Flash point: 150 C, 302 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 Acids
Strong Oxidizers
Organic Acids
Mineral Acids
Peroxides
Sodium Hypochlorite
Strong Bases
Strong Reducing Agents
Amines

This mixture is likely to exhibit the following combustion products:

Ammonia
Carbon Dioxide, Carbon Monoxide
Nitrogen Oxides

Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Mixture Toxicity:

Oral Toxicity LD50: 1,608mg/kg
Dermal Toxicity LD50: 3,101mg/kg
Inhalation Toxicity LC50: 4mg/L

Component Toxicity:

84852-15-3	Nonylphenol Oral LD50: 1,412 mg/kg (Rat) Dermal LD50: 2,031 mg/kg (Rabbit)
2855-13-2	Isophorone Diamine Oral LD50: 1,030 mg/kg (rat) Dermal LD50: 2,000 mg/kg (rat) Inhalation LC50: 5 mg/L (rat)
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 (r
929-59-9	2,2'-[1,2-ethanediylbis(oxy)]bis- Oral LD50: 1,600 mg/kg (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
Isophorone Diamine	LC50 110 mg/l fish 96h; ErC50 50 mg/l algae 72h; EC10 1120 mg/l bacteria 18h
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))	
Bisphenol A diglycidyl ether resin	LC50 3.1 mg/l fish 96h; EC50 2.1 mg/l water flea 48h; EC50 >11mg/l Algae 72h; LC50 >100mg/l bacteria 3h

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:

- None

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:

- None

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

- Bisphenol A diglycidyl ether resin 25068-38-6
- alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl)) 9046-10-0
- Nonylphenol 84852-15-3

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

- Bisphenol A diglycidyl ether resin 25068-38-6
- alpha-(2-Aminomethylethyl)-omega-(2-aminomethylethoxy)- poly(oxy(methyl-1,2-ethanediyl)) 9046-10-0
- Nonylphenol 84852-15-3

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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