

Section 1 - Product and Company Identification

Trade Name: HybriShield 2101 Hardener (All Versions) **Product Code:** HybriShield 2101-000 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:

Flammable Liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)
Inhalation Toxicity	Acute Tox. 3	Gases >500+<=2500ppm, Vapors >2+<=10mg/l, Dusts & Mists >0.5+<=1mg/l
Skin Corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation
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	1B	Presumed Human Carcinogen, Based on demonstrated animal carcinogenicity
Organ Toxin Single Exposure	1	Significant toxicity in humans- Reliable, good quality human case studies or epidemiological studies, Presumed significant toxicity in humans- Animal studies with significant and/or severe toxic effects relevant to humans at generally low exposure (guidan
Aspiration Hazard	1	Aspiration Toxicity Category 1: Known (regarded)- human evidence - hydrocarbons with kinematic viscosity ? 20.5 mm ² /s at 40° C.

GHS Hazards

H225	Highly flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H331	Toxic if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H340	May cause genetic defects
H350	May cause cancer
H370	Causes damage to organs

GHS Precautions

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking

P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/light/equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
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
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
P311	Call a POISON CENTER or doctor/physician
P321	Specific treatment (see label)
P331	Do NOT induce vomiting
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
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
P307+P311	IF exposed: Call a POISON CENTER or doctor/physician
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
P342+P311	Call a POISON CENTER or doctor/physician
P370+P378	In case of fire: Use carbon dioxide, alcohol-resistant foam, dry chemical, dry sand, or water fog for extinction
P405	Store locked up
P403+P233	Store in a well ventilated place. Keep container tightly closed
P403+P235	Store in a well ventilated place. Keep cool
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 %
Hexane, 1,6-diisocyanato-, homopolymer	28182-81-2	50.00% - 60.00%
Dimethyl Carbonate	616-38-6	20.00% - 30.00%
Xylene	1330-20-7	10.00% - 20.00%
Solvent naphtha	64742-95-6	5.00% - 10.00%

1,2,4-Trimethyl Benzene	95-63-6	1.00% - 5.00%
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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: 18 C (64 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
Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2	Not Established	Not Established	Not Established
Dimethyl Carbonate 616-38-6	Not Established	Not Established	Not Established
Xylene 1330-20-7	Not Established	TWA: 100 ppm	Not Established

Solvent naphtha 64742-95-6	Not Established	Not Established	Not Established
1,2,4-Trimethyl Benzene 95-63-6	Not Established	TWA (TLV): 25 ppm	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: 7.3 mm Hg	Odor Threshold: Not available
Vapor Density: Not available	pH: Not available
Density (g/cm3): 1.06	Melting Point: Not available
Freezing Point: Not available	Solubility: Not available
Boiling Range: Not available	Flash Point: 18 C, 64 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
Strong Bases
Oxygen

This mixture is likely to exhibit the following combustion products:

Toxic gases
Irritating gases

Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Mixture Toxicity:

Dermal Toxicity LD50: 2,038mg/kg
Inhalation Toxicity LC50: 1mg/L

Component Toxicity:

28182-81-2	Hexane, 1,6-diisocyanato-, homopolymer Oral LD50: 5,000 mg/kg (rat) Dermal LD50: 2,000 mg/kg (rabbit) Inhalation LC50: 1 mg/L (rat)
616-38-6	Dimethyl Carbonate Oral LD50: 5,000 mg/kg (rat) Dermal LD50: 2,000 mg/kg (rabbit) Inhalation LC50: 5 mg/L (rat)
1330-20-7	Xylene Oral LD50: 4,300 mg/kg (rat) Dermal LD50: 1,700 mg/kg (rabbit) Inhalation LC50: 5,000 ppm
64742-95-6	Solvent naphtha Dermal LD50: 2,000 mg/kg (rabbit)

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>
64742-95-6	Solvent naphtha	5 to 10%	Solvent naphtha:

Section 12 - Ecological Information

Component Ecotoxicity:

Hexane, 1,6-diisocyanato-, homopolymer	LC50 >100 mg/l fish 96h; EC50 >100 mg/l water flea 48h; EC50 >1000 mg/l algae 72h; EC50 >1000 mg/l bacteria 3h
Dimethyl Carbonate	LC50 >100 mg/l fish 96h; EC50 >100 mg/l water flea 48h; EC50 >100 mg/l algae 72h
Xylene	LC50 2 mg/l fish 96h; EC50 75.49 mg/l water flea 24h; EC50 72 mg/l algae 14d
Solvent naphtha	LC50 9.2 mg/l fish 96h; EC50 226 mg/l water flea 24h
1,2,4-Trimethyl Benzene	LC50 7.72 mg/l fish 96h; EC50 3.6 mg/l water flea 48 h

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	1263	II	3
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:

- 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:

- 1,2,4-Trimethyl Benzene 95-63-6
- Xylene 1330-20-7
- Dimethyl Carbonate 616-38-6
- Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2

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

- 1,2,4-Trimethyl Benzene 95-63-6
- Solvent naphtha 64742-95-6
- Xylene 1330-20-7
- Dimethyl Carbonate 616-38-6
- Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2

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

- 1,2,4-Trimethyl Benzene 95-63-6
- Solvent naphtha 64742-95-6
- Xylene 1330-20-7
- Dimethyl Carbonate 616-38-6
- Hexane, 1,6-diisocyanato-, homopolymer 28182-81-2

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

- Xylene 1330-20-7

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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