



HybriShield 2401 Resin

(Part A)

Safety Data Sheet (SDS)

Section 1 - Product and Company Identification

Trade Name: HybriShield 2401 Resin (All Versions)

Product Code: HybriShield 2401-000 CLOA Resin

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:

Flammable Liquid	4	Flash point $\geq 60^{\circ}\text{C}$ (140°F) and $\leq 93^{\circ}\text{C}$ (200°F)
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

H227	Combustible liquid
H412	Harmful to aquatic life with long lasting effects

GHS Precautions

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P235	Keep cool
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P370+P378	In case of fire: Use carbon dioxide, alcohol-resistant foam, dry chemical, dry sand, or water fog for extinction
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: Warning

Section 3 - Composition / Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
Dimethyl carbonate	616-38-6	5.00% - 10.00%
2,4-Pentanedione	123-54-6	1.00% - 5.00%
Soybean oil acids methyl ester	67784-80-9	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: 72 C (162 F) LEL: 2.00 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
Dimethyl carbonate 616-38-6	Not Established	Not Established	Not Established
2,4-Pentanedione 123-54-6	Not Established	TLV: TWA- 25 ppm	Not Established
Soybean oil acids methyl ester 67784-80-9	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	Viscous liquid	Odor	Not Available
Physical State	Liquid	Vapor Density	3.24
Vapor Pressure	10.4 mmHg	Boiling Range	90 to 280 °C
Specific Gravity (SG)	1.097	Lbs VOC/Gallon Less Water	0.00

Section 10 - Stability and Reactivity

Stability:

STABLE

Components of this mixture are incompatible with the following materials:

Strong Oxidizers
Strong Bases
Strong Acids
Strong Reducing Agents
Metals

This mixture is likely to exhibit the following combustion products:

Carbon Dioxide, Carbon Monoxide
Smoke

Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Mixture Toxicity:

Inhalation Toxicity LC50: 50mg/L

Component Toxicity:

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)
123-54-6	2,4-Pentanedione	Oral LD50: 760 mg/kg (rat) Dermal LD50: 790 mg/kg (rabbit) Inhalation LC50: 5 mg/L (rat)
67784-80-9	Soybean oil acids methyl ester	Oral LD50: 5,000 mg/kg (rat) Dermal LD50: 5,000 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>
None			No Data

Section 12 - Ecological Information

Component Ecotoxicity:

Dimethyl carbonate	LC50 101 mg/l fish 96h; EC50 101 mg/l water flea 96h; EC50 101 mg/l algae 72h
2,4-Pentanedione	LC50 106 mg/l fish 96h; EC50 40 mg/l water flea 24h
Soybean oil acids methyl ester	LC50 1000 mg/l fish 96h; EC50 4.65 mg/l water flea 24h

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	NA	NA	NA
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:

2,4-Pentanedione 123-54-6

Dimethyl carbonate 616-38-6

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

2,4-Pentanedione 123-54-6

Dimethyl carbonate 616-38-6

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

2,4-Pentanedione 123-54-6

Dimethyl carbonate 616-38-6

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

<u>Country</u>	<u>Regulation</u>	<u>All Components Listed</u>
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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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