

GHS COMPLIANT SAFETY DATA SHEET

TO COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR.1910.1200 & THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS

SECTION 1: IDENTIFICATION

PRODUCT NAME	Resiflow® L-64F-MBE-1
MFR.'S CODE ID/SYNONYMS	Resiflow® L-64F-MBE-1
CAS NUMBER	Proprietary
PRODUCT USE	Masterbatch flow control additive for paints and coatings
RESTRICTIONS ON USE	For industrial use only
MANUFACTURER/SUPPLIER	Estron Chemical, Inc.
ADDRESS	807 North Main Street, Calvert City, KY 42029 USA
GENERAL INFORMATION	(270) 395-4195
EMERGENCY TELEPHONE	CHEMTREC (800) 424-9300



SECTION 2: HAZARDS IDENTIFICATION

Signal Word: *Warning*

GHS Classification

Physical	Health	Environmental
OSHA Combustible Dust	Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Skin Sensitization – Category 1 Specific Target Organ Toxicity, Single Exposure (Respiratory Tract Irritation) – Category 3	Hazardous to the Aquatic Environment, Acute & Chronic Hazard – Category 2

GHS Label

<p>Symbols: Exclamation Mark  Environment </p>	
<p>Hazard Statements H315: Causes skin irritation H317: May cause an allergic skin reaction H319: Causes serious eye irritation H335: May cause respiratory irritation H411: Toxic to aquatic life with long lasting effects May form combustible dust concentrations in air.</p>	<p>Precautionary Statements <i>Prevention</i> P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P264: Wash exposed skin 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. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. <i>Response</i> P302+352: IF ON SKIN: Wash with soap and water. P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P321: Specific treatment (see supplemental first aid instructions on this label) P333+313: If skin irritation or a rash occurs: Get medical advice/attention. P337+313: If eye irritation persists get medical advice/attention.</p>

	<p>P362+P364: Take off contaminated clothing and wash it before reuse. P391: Collect spillage.</p> <p><i>Storage</i> P403+233: Store in a well ventilated place. Keep container tightly closed. P405: Store locked up.</p> <p><i>Disposal</i> P501: Dispose of contents/container to an authorized hazardous waste handler.</p>
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HAZARDS NOT OTHERWISE CLASSIFIED: None identified.

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	%	CLASSIFICATION	H Codes
Epoxy Resin	25068-38-6	89 – 90	OSHA Combustible Dust (<i>when blended with acrylic polymer</i>) Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Skin Sensitization – Category 1 Specific Target Organ Toxicity, Single Exposure (Respiratory Tract irritation) – Category 3 Hazardous to the Aquatic Environment, Acute & Chronic Hazard – Category 2	<i>None</i> H315 H319 H317 H335 H411

(See Section 8 for Exposure Limits)

NON-HAZARDOUS INGREDIENTS	CAS #	%
Acrylic Polymer	Proprietary	9 – 11

SECTION 4: FIRST-AID MEASURES

SYMPTOMS OF EXPOSURE

ACUTE	Skin irritation. Serious eye irritation. Respiratory irritation. Difficulty breathing.
DELAYED	Stinging, tearing, redness and swelling of the eyes. Coughing or other irritation of the respiratory tract. Dryness, redness or burning of the skin.
INHALATION	May cause respiratory irritation. If inhaled, remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
SKIN CONTACT	Causes skin irritation. May cause an allergic skin reaction. Wash thoroughly with soap and water. If skin irritation persists consult a doctor.
EYE CONTACT	Causes serious eye irritation. Wash with plenty of water for 15 minutes. Consult a physician.
INGESTION	If ingested, seek medical attention.
SPECIFIC TREATMENT	No other specific treatments are known or have been identified.

SECTION 5: FIRE FIGHTING MEASURES

FLAMMABILITY CLASSIFICATION	OSHA Combustible Dust
FLAMMABLE LIMITS	No test data available
HAZARDOUS COMBUSTION PRODUCTS	Carbon monoxide and carbon dioxide.
EXTINGUISHING MEDIA	Dry Chemical, Water Fog, CO ₂
UNUSUAL FIRE AND EXPLOSION HAZARDS	May represent a combustion hazard if dust from this material is allowed to accumulate in the air.
SPECIAL FIRE FIGHTING PROCEDURES	None known.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS	As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full (Bunker) protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Prevent contact with skin, eyes and clothing.
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PROTECTIVE EQUIPMENT	See Personal Protective Equipment in Section 8.
EMERGENCY PROCEDURES	Prevent unnecessary exposure to bystanders, prevent contact with open flames or other ignition sources.
ENVIRONMENTAL PRECAUTIONS	Obey relevant local, state, provincial and federal laws and regulations. Do not allow the product to enter public drainage systems or open water courses.
METHODS AND MATERIALS FOR CLEANING UP	Avoid creating excessive dust while collecting. Sweep or scoop into a suitable container for disposal.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	Prevent contact with skin and eyes. Avoid inhalation. If necessary, use local ventilation. Handle in accordance with good industrial hygiene and safety practice. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, <i>Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids</i> , for safe handling
CONDITIONS FOR SAFE STORAGE	Store locked up. Keep container tightly closed in a dry and well ventilated place. Best stored at temperatures below 30 °C (86 °F) to avoid sintering.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENTS	CAS #	%	ACGIH TLV	OSHA PEL
Epoxy Resin	25068-38-6	89 – 90	<i>None established</i>	<i>None established</i>
Acrylic Polymer	Proprietary	9 - 11	<i>None established</i>	<i>None established</i>

APPROPRIATE ENGINEERING CONTROLS None required.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE	Safety glasses or goggles.
SKIN	Impervious protective gloves and clothing as appropriate to avoid skin contact.
RESPIRATORY	An appropriate NIOSH approved respirator for Dust.
HYGIENE MEASURES	Handle in accordance with good industrial hygiene and safety practices. When using, do not eat, drink or smoke. Wash face and hands before breaks and at the end of work. Wash contaminated clothing before re-use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	White to off-white flakes	ODOR	Very mild, esteric
ODOR THRESHOLD	No test data available	pH	No test data available
MELTING POINT	No test data available	BOILING POINT/RANGE	260 °C
FLASH POINT	251 °C (483.8 °F) PMCC	EVAPORATION RATE	No test data available
FLAMMABILITY	OSHA Combustible Dust		
FLAMMABLE LIMITS	LOWER No test data available	UPPER	No test data available
VAPOR PRESSURE	0.03 mbar @ 77 °C	VAPOR DENSITY	No test data available
RELATIVE DENSITY	1.2 @ 25 °C	SOLUBILITY IN H ₂ O	Not readily soluble
PARTITION COEFFICIENT (n-octanol/water)	Epoxy Log P _{ow} = 2.8	AUTOIGNITION	
DECOMPOSITION		TEMPERATURE	> 300 °C
TEMPERATURE	> 250 °C	VISCOSITY	No test data available
% VOLATILE	2 Maximum	SOFTENING POINT	80 – 95 °C

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY	This product does not pose a significant reactivity hazard when stored appropriately (see Section 7).
STABILITY	This product is stable when stored appropriately (see Section 7).
CONDITIONS TO AVOID	Excessive heat and open flame, material dust accumulation.
INCOMPATIBLE PRODUCTS	Aliphatic amines and strong oxidizing or reducing agents.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon dioxide and carbon monoxide.
POSSIBILITY OF HAZARDOUS REACTIONS	Reacts with considerable heat release with some curing agents.

SECTION 11: TOXICOLOGICAL INFORMATION

SYMPTOMS OF EXPOSURE

ACUTE	Skin irritation. Serious eye irritation. Respiratory irritation. Difficulty breathing.
DELAYED	Stinging, tearing, redness and swelling of the eyes. Coughing or other irritation of the respiratory tract. Dryness, redness or burning of the skin.

ACUTE TOXICITY

INHALATION	May cause respiratory irritation.		
SKIN	Causes skin irritation. May cause an allergic skin reaction.		
EYES	Causes serious eye irritation.		
INGESTION	Not likely to have harmful effects in normal exposures, may cause nausea or gastric distress if ingested in quantity.		
INHALATION TOXICITY	LC ₅₀ Rat		Not established
DERMAL TOXICITY	LD ₅₀ Rat	Epoxy Resin Polymers	2,000 mg/kg Not established
SKIN IRRITATION	Draize, Rabbit, 24 hours	Epoxy Resin Polymers	Severe irritant Not established
EYE IRRITATION	Draize, Rabbit, 24 hours	Epoxy Resin Polymers	Mild irritant Not established
ORAL TOXICITY	LD ₅₀ Rat	Epoxy Resin Polymers	11,400 mg/kg Not established
SENSITIZATION	Draize, Rabbit		Not established

CHRONIC EFFECTS

CARCINOGENICITY	Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65, although the epoxy component contains less than 0.1% of a chemical, 2-(phenoxymethyl)-oxirane, known to the State of California to cause cancer.
MUTAGENIC EFFECTS	None known
REPRODUCTIVE TOXICITY	None known
TARGET ORGAN EFFECTS	Respiratory tract irritation

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY	Toxic to aquatic life with long lasting effects.		
TOXICITY TO FISH	LC ₅₀ , 96 h	Epoxy Resin Polymers	1.3 mg/l Not established

TOXICITY TO DAPHNIA	EC ₅₀ Daphnia magna, 48 h	Epoxy Resin Polymers	2.1 mg/l Not established
TOXICITY TO ALGAE	LC ₅₀ , 72 h	Epoxy Resin Polymers	> 11 mg/l Not established
PERSISTANCE AND DEGRADABILITY	No data available		
BIOACCUMULATIVE POTENTIAL	Epoxy Resin BCF = 3 – 31, low potential Epoxy Resin Log P _{ow} = 2.64 – 3.78		
MOBILITY IN SOIL	No data available		
OTHER ADVERSE EFFECTS	None known		

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL Dispose of in accordance with local, state and federal regulations. This product, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This product could become a hazardous waste, if chemical additions are made or if the product is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste.

US EPA WASTE NUMBER & DESCRIPTION No information available

SECTION 14: TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

DOT	Not regulated	TDG	Not regulated	MEX	Not regulated
ICAO	Not regulated	IATA	Not regulated	IMDG/IMO	Not regulated
RID	Not regulated	ADR	Not regulated	ADN	Not regulated

SECTION 15: REGULATORY INFORMATION

The components in this product are either listed or exempt from listing due to polymer exemption criteria for the following chemical listing inventories as indicated by an "X":

AICS	Australian Inventory of Chemical Substances	X
DSL	Canadian Domestic Substances List	X
ECL	Korean Existing Chemicals List	X
ECN	Taiwan Chemical Substances List	X
ELINCS	European List of Notified Chemical Substances	
ENCS	Japanese Existing and New Chemical Substances	X
IECSC	Inventory of Existing Chemical Substances in China	X
ISRAEL	Proposed Israel Hazardous Substances List	
NDSL	Canadian Non-Domestic Substances List	
NZIoC	New Zealand Inventory of Chemicals	X
PICCS	Philippines Inventory of Chemicals and Chemical Substances	
SWISS	Giftliste 1 and Inventory of Notified New Substances	
TSCA	US Toxic Substances Control Act	X

INTERNATIONAL REGULATIONS

EU REGULATION	(EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization, <i>Substances of Very High Concern</i> : This product does not contain any SVHC listed substances.
REACH	All components of this product are REACH pre-registered.
EINECS	All of the components of this product are included on the European Inventory of Existing Commercial Chemical Substances.
C.D. 96/82/EC	Council Directive 96/82/EC, Annex I not mentioned by name. With regard to possibly appropriate decomposition products see Chapter 10.

WHMIS CLASSIFICATION D2B: Toxic Material Causing Other Toxic Effects

FEDERAL REGULATIONS

SARA 313 This product does not contain any chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA Section 311/312 (40 CFR 370) Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Pressure Hazard	No
Reactivity Hazard	No

CERCLA This product, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this product.

CLEAN WATER ACT This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CLEAN AIR ACT This product does not contain any substances regulated as hazardous air pollutants (HAPS under Section 112 of the Clean Air Act Amendments of 1990).

OTHER FEDERAL None known

U.S. STATE REGULATIONS

RIGHT TO KNOW The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in Sections 2 and 15 of this Safety Data Sheet.

CALIFORNIA PROP 65 This product contains less than 0.1% of a substance known to the state of California to cause cancer.

Ingredient Name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
2-(phenoxyethyl)-oxirane	Yes	No	5 µg/day	No

SECTION 16: OTHER INFORMATION

DISCLAIMER This product is intended for industrial use only and should be used in accordance with the manufacturer’s recommendations. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. This SDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

DATE OF REVISION May 23, 2016, *replaces November 20, 2015 version*

REASON FOR REVISION Added Restrictions on Use to Section 1. Re-formatted Section 3 to separate Hazardous from Non-Hazardous Ingredients and to display H Codes. Added advisory comment for temperature controlled storage to Section 7. Revised the Appearance in Section 9 to match the production specification.

SDS PREPARED BY Glen Pearson SDS APPROVED BY Robert Auerbach