

# SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

# **SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**Product identifier** 

CAS No.

Chemical Name Epoxy Resin

Product Name / Trade Name EPO-LP LP-13 Safety Red

EPO-Guard<sup>™</sup> EPO-203, EPO-204, EPO-205 Part A

**Epoxy Resin** 

Details of the supplier of the safety data sheet

Company Identification Res-Tek, Inc.
110 Riverside Drive

Cartersville, Georgia 30120 United States of America

Telephone 1-888-737-8351 / 1-770-427-4034

Emergency telephone number CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887

(Collect calls accepted)

## **SECTION 2: HAZARDS IDENTIFICATION**

Hazard classification

GHS Classification Skin irrit. 2; Eye irrit. 2A; Skin sens 1B; Aquat. Acute 2; Aquat. Chronic 2

Label elements

**Hazard pictograms** 



Signal Word(s)

**WARNING** 

Hazard Statement(s) Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation.

Toxic to aquatic life with long lasting effects.

**Precautionary Statement(s)** 

Prevention Avoid breathing dust/ fumes/ gas/ mist/ vapours/ spray.

Wash skin thoroughly after handling

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves and eye protection/face protection.

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Hazards not otherwise classified

May cause sensitization by skin contact.

# **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS Number	Concentration	Hazard Statement(s)
Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	25085-99-8	60% – 90%	Skin Irrit. 2; H315 Skin Sens. 2; H317 Eye Irrit.; H320 Aquatic Chronic 2; H411
Alkyl glycidyl ether	68609-97-2	5% – 20%	Skin Irrit. 2; H315 Skin Sens. 2; H317
Pigment Red 101	1309-37-1	4% - 20%	Eye Irrit. 2; H319
Titanium Dioxide	13463-67-7	2% - 6%	Harmful if Inhaled; H332 Carc. 2; H351
Pigment Red 254	84632-65-5	0.5 – 7%	
Proprietary additive	Trade secret	0.1% - 5%	Aquatic Acute; H401

Chemical family: liquid epoxy resin

# **SECTION 4: FIRST AID MEASURES**



Description of first aid measures

General advice

Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

Inhalation

If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.

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Skin Contact Immediately remove contaminated clothing, and any extraneous chemical, if

possible to do so without delay. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing. Take off contaminated clothing and shoes immediately. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.

Eye Contact Hold eyelids apart, initiate and maintain gentle and continuous irrigation until

the patient receives medical care. If medical care is not promptly available,

continue to irrigate for one hour.

**Ingestion** Do not induce vomiting without medical advice. If a person vomits when lying

on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to

he side

 $\label{eq:most_entropy} \textbf{Most important symptoms and effects}, \textbf{both}$ 

acute and delayed

Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat. Eye disease. Skin disorders and Allergies.

Asthma. Neurological disorders.

## **SECTION 5: FIRE-FIGHTING MEASURES**

### **Extinguishing Media**

Suitable extinguishing media Water fog of fine spray.

Carbon dioxide (CO2). Dry chemical. Dry sand.

### Special hazards arising from the substance or mixture

Specific hazards Smoke may contain the original material in addition to combustion products of

varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Phenolics. Carbon monoxide. Carbon

dioxide.

Special protective equipment for fire-fighters Avoid contact with the skin. A face shield should be worn. Use personal

protective equipment. Wear self contained breathing apparatus for fire fighting

if necessary.

Further information Do not allow run-off from fire fighting to enter drains or water courses. Fire

residues and contaminated fire extinguishing water must be disposed of in

accordance with local regulations.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

 $\label{precautions} \textbf{Personal precautions}, \textbf{protective equipment}$ 

and emergency procedures

Wear suitable protective clothing, gloves and eye/face protection. Use selfcontained breathing apparatus and chemically protective clothing. Evacuate

personnel to safe areas.

Environmental precautions Construct a dike to prevent spreading.

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Methods and material for containment and cleaning up

Contact Res-Tek for advice. Approach suspected leak areas with caution. Place in appropriate chemical waste container.

**Additional advice** 

Open enclosed spaces to outside atmosphere. If possible, stop flow of product.

# **SECTION 7: HANDLING AND STORAGE**

Precautions for safe handling

Use only in well-ventilated areas. Avoid breathing vapors and/or aerosols. Avoid contact with skin and eyes. Avoid contact with eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.

Conditions for safe storage

Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Occupational Exposure Limits
Occupational Exposure Limits

		(8hr TWA)		(STEL)		
		PEL	TLV	PEL	TLV	
SUBSTANCE.	CAS No.	(OSHA)	(ACGIH)	(OSHA)	(ACGIH)	Note:
		5 mg/m3				
		(respirable)				
Titanium Dioxide	13463-67-7		10 mg/m3			
		10 mg/m3				
		(total dust)				

- TWA: Time Weighted Average; STEL: Short Term Exposure Limit; PEL: Permissible Exposure Limit; TLV: Threshold Limit Value

**Exposure controls** 

Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protection equipment

Respiratory protection

Wear appropriate respirator when ventilation is inadequate.



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Skin protection (Hand protection/ Other)



Eye/face protection



Special instructions for protection and hygiene

Exposure limit(s)

Butyl-rubber Nitrile rubber. Neoprene gloves. Impervious gloves. PVC disposable gloves. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Impervious clothing. Full rubber suit (rain gear). Rubber or plastic boots. Slicker Suit.

Full face shield with goggles underneath. Chemical resistant goggles must be worn.

Discard contaminated leather articles. Wash hands at the end of each work shift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

None established.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance

Odor

Odor threshold

рΗ

Melting point /range Boiling point/range Flash Point

Evaporation rate (Butyl Acetate = 1)

Flammability (solid, gas) Lower explosion limit Upper explosion limit Vapor pressure Relative vapor density Relative density Water solubility

Partition coefficient: n-octanol/water

Autoignition temperature Decomposition temperature

Viscosity

Molecular weight

Density

Viscous. Liquid. Odorless to mild. Not available. Not applicable. Not applicable. 608 °F (320 °C)

264 - 268°C (507 - 514°F) at 102.89 hPa

Not available.
Not applicable.
Not determined.
Not determined.

< 0.0000001 Pa EC Method A4

Not determined.

1.36 at 20°C / 20°C Literature

5.4 - 8.4 mg/l at 20° C (68° F) EU Method A.6

Log Pow: 3.242 Estimated

Not determined. No data available.

11,000 - 14,000mPa.sat77°F(25°C).

No data available.

84.90 lb/ft3 (1.36 g/cm3) at 70 F (21 ℃)

# **SECTION 10: STABILITY AND REACTIVITY**

Chemical stability

Conditions to avoid

Stable under normal conditions.

Short term exposures to temperatures above 300°C. Potentially violent decomposition can occur above 350°C.

Generation of gas during decomposition can cause pressure in closed systems.

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Materials to avoid Avoid contact with oxidizing materials. Acids and amines.

**Hazardous decomposition products**Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water.

Possibility of hazardous reactions/reactivity No data available.

# **SECTION 11: TOXICOLOGICAL INFORMATION**

Toxicological information on this product or its components appear in this section when such data is available.

### Likely routes of exposure

Effects on eye Causes eye irritation.

Effects on skin Causes skin irritation.

Inhalation effects Harmful if inhaled and may cause delayed lung injury. May cause

nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory

system.

Ingestion effects No data available.

Symptoms Repeated and/or prolonged exposure to low concentrations of

vapors and/or aerosols may cause: Sore throat. Eye disease., Skin

disorders and Allergies., Asthma.

Acute toxicity

Acute oral toxicity LD50 : 15,000 mg/kg Species : Rat.

Inhalation LC50 (4h): Species: Rat: not been determined.

Acute dermal toxicity LD50: 23,000 mg/kg Species: Rabbit.

Skin corrosion/irritation Moderate skin irritation.

Serious eye damage/eye irritation Moderate eye irritation.

Sensitization Sensitization has occurred in laboratory animals after repeated

exposures.

Chronic toxicity or effects from long-term exposure

Carcinogenicity

Many studies have been conducted to assess the potential carcinogenicity of diglycidyl either of bisphenol A (DGEBA).

Indeed, the most recent review of the available data by the international Agency for Research on Cancer (IARC) has

concluded the DGEBA is not classified as a carcinogen.

IARC's Monograph No. 93 reports there is sufficient evidence of carcinogenicity in experimental rats exposed to titanium dioxide but inadequate evidence for carcinogenicity in humans and has been assigned a Group 2B rating. In addition, the IARC summary concludes, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

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NTP	IARC	ACGIH	OSHA
No	2B	No	No

Group 2B = Possibly carcinogenic to humans. (airborne, unbound particles of respirable size)

Reproductive toxicity Resins based on the diglycidyl ether of bishphenol A (DGEBA)

did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were

exposed orally.

Specific target organ systemic toxicity (single exposure) Evaluation of the available data suggests that this material is

not an STOT-SE toxicant.

Specific target organ systemic toxicity (repeated exposure) Except for skin sensitization, repeated exposures to low

molecular weight epoxy resins of this type are not anticipated to

cause any significant adverse effects.

Aspiration hazard Based on the physical properties, not likely to be an aspiration

hazard.

### Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. May cause allergic skin reaction. Eye disease., Skin disorders and Allergies., Asthma.

COMPONENTS INFLUENCING TOXICOLOGY

Propane, 2,2-bis[p-(2.3-epoxypropoxy)phenyl]-, polymers

Acute inhalation toxicity
The LC50 has not been determined.

# **SECTION 12: ECOLOGICAL INFORMATION**

# **Toxicity**

Acute toxicity in fish

Material is moderately toxic to aquatic organisms on the acute basis

(LC50/EC50 between 1 and 10 mg/L in the most sensitive species

tested).

Toxicity to fish LC50 (96 h): 2 mg/l

Species: Rainbow trout (Oncorhynchus mykiss)

Acute toxicity to aquatic invertebrates EC50 (48 h): 1.8 mg/l

Species: Water flea (Daphnia magna)

Acute toxicity in algae/aquatic plants ErC50 (72 h): 11 mg/l

Species: Scenedesmus capricorntum (fresh water algae)

Toxicity to bacteria IC50 (18h): >42.6 mg/l

Bacteria, Respiration rates.

Biodegradability No data available.

Mobility No data available.

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None

**SECTION 13: DISPOSAL CONSIDERATIONS** 

# EPO-LP (Liquid Pigment) LP-13 Safety Red EPO-Guard<sup>™</sup> EPO-203, EPO-204, EPO-205 Part A

Bioaccumulation No data available.

waste from residues/unused products	S Contact supplier	if guidance is required.		
Contaminated packaging	•	Dispose of container and unused contents in accordance with federal, state, and local requirements.		
SECTION 14: TRANSPORT INF	ORMATION			
DOT	Not regulated for	transport		
IATA				
UN/ID number	UN 3082			
Proper shipping name	Environmentally	hazardous substance, liquid,	, N.O.S., (Epoxy Resin)	
Class or division	9			
Packing group	III			
Marine pollutant	Yes			
IMDG				
UN/ID number	UN 3082			
Proper shipping name		hazardous substance, liquid,	NOS (Enovy Posin)	
Class or division	9	riazardous substance, liquid	, N.O.S., (Epoxy Resili)	
Packing group	III			
. doi.ii.g g.oup				
Further Information				
The transportation information is n transportation information, contact		fic regulatory data relating to	o this material. For complete	
SECTION 15: REGULATORY IN	NFORMATION			
Safety, health and environmental regu	ılations/legislation specific fo	r the substance or mixture	e:	
TSCA (Toxic Substance Control Act) -	Inventory Status: All compone	nts listed.		
Designated Hazardous Substances ar	nd Reportable Quantities (40 (	CFR 302.4):		
Chemical Name	CAS No. T	ypical %wt. RQ (	Pounds)	
None				
SARA 311/312 - Hazard Categories: No	one Reactivity	ute)	))	
SARA 313 - Toxic Chemicals (40 CFR	372):			
Chemical Name		CAS No.	Typical %wt.	
None				
SARA 302 - Extremely Hazardous Sub	stances(40 CFR 355):			
Chemical Name	CAS No.	Typical %wt	TPQ (pounds)	

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# Proposition 65 (California):

Chemical Name	CAS No.	Typical %wt.	Hazards
Titanium Dioxide	13463-67-7	2 - 6	Cancer (airborne, unbound particles of respirable size)

WARNING: This product can expose you to chemicals including Titanium Dioxide, which is known to the State of California to cause cancer. For more information, go to <a href="https://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>.

Reference to Titanium Dioxide is based on unbound respirable particles and is not generally applicable to product as supplied.

# **SECTION 16: OTHER INFORMATION**

The following sections contain revisions or new statements: 1 - 16.

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Hazard Statement(s) Listed in: SECTION 3

Skin irritation: H315

May cause an allergic skin reaction; H317
Causes serious eye irritation; H319
Causes eye erritation; H320
Harmful if inhaled; H332
Suspected of causing cancer; H351
Toxic to aquatic life; H401

Toxic to aquatic life, 11401

Toxic to aquatic life with long lasting effects; H411

Additional Information: None.

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