

Safety Data Sheet
acc. to OSHA HCS

Printing date 07/02/2024

Version 5.0

Last revision 06/01/2024

*** 1 Identification**

- **Product name:** EpoRed Resin - Part A
- **Part number:** 145-20050
- **Application of the substance / the mixture** Epoxy resin
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Allied High Tech Products Inc.
16207 Carmenita Road
USA-Cerritos, CA, 90703
USA
info@alliedhightech.com
- **Information department:** Product safety department
- **Emergency telephone number:**
During normal opening times: +1 (310) 635-2466
Chemtrec: +1 (202) 483-7616

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Germ Cell Mutagenicity 2 H341 Suspected of causing genetic defects.
Carcinogenicity 2 H351 Suspected of causing cancer.



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irritation 2 H315 Causes skin irritation.
Eye Irritation 2A H319 Causes serious eye irritation.
Sensitization - Skin 1 H317 May cause an allergic skin reaction.
Flammable Liquids 4 H227 Combustible liquid.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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Hazard pictograms



GHS07 GHS08 GHS09

Signal word Warning

Hazard-determining components of labeling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

butyl glycidyl ether

methyl methacrylate

Hazard statements

Combustible liquid.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

Toxic to aquatic life with long lasting effects.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from flames and hot surfaces. – No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

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

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

In case of fire: Use CO₂, powder or water spray to extinguish.

Collect spillage.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of the substances listed below with nonhazardous additions.

Hazardous components and components with occupational exposure limits:

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317	80-90%
2426-08-6	butyl glycidyl ether ⚠ Flammable Liquids 3, H226; ⚠ Germ Cell Mutagenicity 2, H341; Carcinogenicity 2, H351; ⚠ Acute Toxicity - Oral 4, H302; Acute Toxicity - Inhalation 4, H332; Sensitization - Skin 1, H317; Specific Target Organ Toxicity - Single Exposure 3, H335; Aquatic Chronic 3, H412	10-<20%
80-62-6	methyl methacrylate ⚠ Flammable Liquids 2, H225; ⚠ Acute Toxicity - Inhalation 4, H332; Skin Irritation 2, H315; Sensitization - Skin 1, H317; Specific Target Organ Toxicity - Single Exposure 3, H335	0.1-<1%

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99-97-8	N,N-dimethyl-p-toluidine	<0.1%
	Acute Toxicity - Oral 3, H301; Acute Toxicity - Dermal 3, H311; Acute Toxicity - Inhalation 3, H331;	
	Carcinogenicity 2, H351; Specific Target Organ Toxicity - Repeated Exposure 2, H373; Flammable Liquids 4, H227; Aquatic Chronic 3, H412	

· Non-hazardous components:

Dye	≤1%
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· **Additional information:** The specific chemical identity and/or exact percentage of the composition has been withheld as a trade secret.

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
Breathing difficulty
Coughing
Allergic reactions
Dermatitis
Eye irritation
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Keep away from ignition sources
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Protect from heat and direct sunlight.
Ensure proper ventilation/exhaustion at workplaces.

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Open and handle receptacle with care.

Prevent formation of aerosols.

· **Information about protection against explosions and fires:** No special measures required.· **Conditions for safe storage, including any incompatibilities**· **Storage:**· **Requirements to be met by storerooms and receptacles:**

Protect from sunlight.

Store in a dry place. Store in a closed container.

· **Information about storage in one common storage facility:** Not required.· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Store receptacle in a well ventilated area.

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No additional data. See 7.· **Control parameters**· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

2426-08-6 butyl glycidyl ether

PEL Long-term value: 270 mg/m³, 50 ppmREL Ceiling limit value: 30 mg/m³, 5.6 ppm
*15-minTLV Long-term value: 3 ppm
Skin; DSEN

80-62-6 methyl methacrylate

PEL Long-term value: 410 mg/m³, 100 ppmREL Long-term value: 410 mg/m³, 100 ppmTLV Short-term value: 100 ppm
Long-term value: 50 ppm
DSEN, A4

99-97-8 N,N-dimethyl-p-toluidine

WEEL Long-term value: 0.5 ppm

· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Use suitable respiratory protective device when high concentrations are present.· **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Eye protection:

Tightly sealed goggles

9 Physical and chemical properties

Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	Liquid
Color:	Red
Odor:	Characteristic
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	73 °C (163.4 °F) (Pensky-Martens Closed Cup)
Flammability (solid, gaseous):	Not applicable.
Auto igniting:	215 °C (419 °F)
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Not determined.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure at 25 °C (77 °F):	400 hPa (300 mm Hg)
Density:	Not determined.
Relative density	Not determined.
Vapor density	4.5 (Air = 1)
Specific gravity:	1.13
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	
Not determined.	
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
VOC content:	0.00 %
Other information	
No further relevant information available.	

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10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
Do not mix with alkalis.
Keep away from oxidising agents and acidic substances.
Keep away from heat.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide
- **Additional information:** Hazardous decomposition products may form during combustion.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

Oral	LD50	30,000 mg/kg (rat)
Dermal	LD50	23,000 mg/kg (rabbit)

2426-08-6 butyl glycidyl ether

Oral	LD50	2,050 mg/kg (rat)
Dermal	LD50	2,520 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)

80-62-6 methyl methacrylate

Oral	LD50	7,872 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	18 mg/l (rat)

99-97-8 N,N-dimethyl-p-toluidine

Oral	LD50	1,650 mg/kg (rat)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4 h	1.4 mg/l (rat)

- **Primary chemical irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

2426-08-6	butyl glycidyl ether	2B
80-62-6	methyl methacrylate	3
99-97-8	N,N-dimethyl-p-toluidine	2B

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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12 Ecological information

· Toxicity

· Aquatic toxicity:

EC50 (48 h)	2.1 mg/l (water flea)
LC50 (96 h)	1.3 mg/l (daphnia)

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

EC50 (48 h)	1.8 mg/l (water flea)
LC50 (96 h)	2 mg/l (rainbow trout)
ErC50(72h)	11 mg/l (fresh water algae)
IC50(18h)	42.6 mg/l (bacteria)

80-62-6 methyl methacrylate

EC50 (96 h)	170 mg/l (pseudokirchneriella subcapitata)
EC50 (48 h)	69 mg/l (daphnia)
LC50 (96 h)	79 mg/l (oncorhynchus mykiss)

99-97-8 N,N-dimethyl-p-toluidine

LC50 (96 h)	46 mg/l (pimephales promelas)
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- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Contact waste processors for recycling information.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT, ADN, IMDG, IATA	not regulated
· UN proper shipping name	
· DOT, ADN, IMDG, IATA	not regulated

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Product name: EpoRed Resin - Part A

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· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA	
· Class	not regulated
· Packing group	
· DOT, IMDG, IATA	not regulated
· Environmental hazards:	
· Marine pollutant:	Yes
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

No further relevant information available.

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

80-62-6 | methyl methacrylate

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

80-62-6 | methyl methacrylate

· Proposition 65

· Chemicals known to cause cancer:

2426-08-6 | butyl glycidyl ether

99-97-8 | N,N-dimethyl-p-toluidine

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

To the best of our knowledge, the information contained herein is accurate. However, it does not describe a guarantee of product properties and does not establish a contractual legal relationship.

· Department issuing SDS: Technical Services

· Contact: Pablo Mendoza

· Last revision / supersedes version: 06/01/2024 / 4.0

· Supersedes date: 06/01/2022

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

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IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flammable Liquids 2: Flammable liquids – Category 2
Flammable Liquids 3: Flammable liquids – Category 3
Flammable Liquids 4: Flammable liquids – Category 4
Acute Toxicity - Oral 3: Acute toxicity – Category 3
Acute Toxicity - Oral 4: Acute toxicity – Category 4
Skin Irritation 2: Skin corrosion/irritation – Category 2
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A
Sensitization - Skin 1: Skin sensitisation – Category 1
Germ Cell Mutagenicity 2: Germ cell mutagenicity – Category 2
Carcinogenicity 2: Carcinogenicity – Category 2
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3
Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**