Printing date 01/16/2023 Reviewed on 01/16/2023

1 Identification

· Product identifier

· Trade name: UNIMOUNT (RESIN)

· Article number: 1234-A, 1234-R

· Application of the substance / the mixture Laboratory chemicals

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Electron Microscopy Sciences

1560 Industry Road USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: in fo@ems diasum.com

www.emsdiasum.com

· Information department: Product safety department

· Emergency telephone number:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture



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.

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



· Signal word Warning

· Hazard-determining components of labeling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) 1,6-Hexandiol-diglycidylether

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

· Precautionary statements

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

Wash thoroughly after handling.

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

Wear protective gloves / eye protection / face protection.

If on skin: Wash with plenty of water.

(Contd. on page 2)

Printing date 01/16/2023 Reviewed on 01/16/2023

Trade name: UNIMOUNT (RESIN)

(Contd. of page 1)

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

Take off contaminated clothing and wash it before reuse.

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

Specific treatment (see on this label).

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

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

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



2 Health = 2 Fire = 1

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description**: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:				
	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)	>50- <i>≤</i> 100%		
16096-31-4	1,6-Hexandiol-diglycidylether	>2.5-≤10%		

4 First-aid measures

- · Description of first aid measures
- · 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.

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 No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Printing date 01/16/2023 Reviewed on 01/16/2023

Trade name: UNIMOUNT (RESIN)

(Contd. of page 2)

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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.

· Protective Action Criteria for Chemicals

· <i>PAC-1</i> :		
	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)	· 90 mg/m³
28064-14-4	EPOXY PHENOL NOVOLAC	30 mg/m³
· PAC-2:		
	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)	990 mg/m³
28064-14-4	EPOXY PHENOL NOVOLAC	330 mg/m ³
PAC-3:		
	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average 5, molecular weight \leq 700)	900 mg/m ³

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

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: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.

(Contd. on page 4)

Printing date 01/16/2023 Reviewed on 01/16/2023

Trade name: UNIMOUNT (RESIN)

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

(Contd. of page 3)

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · 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.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

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

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

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

· 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.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Fluid
Color: Light yellow

(Contd. on page 5)

Printing date 01/16/2023 Reviewed on 01/16/2023

Trade name: UNIMOUNT (RESIN)

		(Contd. of page
Odor:	Mild	
Odor threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	300 °C (572 °F)	
Flash point:	149 °C (300.2 °F)	
Flammability (solid, gaseous):	Not flammable.	
Ignition temperature:	290 °C (554 °F)	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure at 20 $^{\circ}C$ (68 $^{\circ}F$):	2 hPa (1.5 mm Hg)	
Density at 20 °C (68 °F):	1.15 g/cm³ (9.59675 lbs/gal)	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Not miscible or difficult to mix.	
Partition coefficient (n-octanol/wate	r): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:		
VOC content:	0.00 %	
	0.0 g/l / 0.00 lb/gal	
Solids content:	0.0 %	
Other information	No further relevant information available.	

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 No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

Printing date 01/16/2023 Reviewed on 01/16/2023

Trade name: UNIMOUNT (RESIN)

(Contd. of page 5)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary 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:

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 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.
- · Ecotoxical 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:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 7)

Printing date 01/16/2023 Reviewed on 01/16/2023

Trade name: UNIMOUNT (RESIN)

(Contd. of page 6)

· Uncleaned packagings:

• Recommendation: Disposal must be made according to official regulations.

DOT ADR, IMDG, IATA UN proper shipping name DOT ADR UMDG	Void 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydri epoxy resin (number average molecular weight ≤ 700)) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) eporesin (number average molecular weight ≤ 700)), MARIN POLLUTANT
UN proper shipping name DOT ADR IMDG	Void 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydri epoxy resin (number average molecular weight ≤ 700)) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUII N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epox resin (number average molecular weight ≤ 700)), MARIN POLLUTANT
DOT TO SADR	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANC. LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydri epoxy resin (number average molecular weight ≤ 700)) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUINO.S. (reaction product: bisphenol-A-(epichlorhydrin) eporesin (number average molecular weight ≤ 700)), MARIN POLLUTANT
ADR IMDG	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANC. LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydri epoxy resin (number average molecular weight ≤ 700)) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) eporesin (number average molecular weight ≤ 700)), MARIN POLLUTANT
IMDG	LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydri epoxy resin (number average molecular weight ≤ 700)) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUINOLS. (reaction product: bisphenol-A-(epichlorhydrin) eporesin (number average molecular weight ≤ 700)), MARIN POLLUTANT
	N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epocresin (number average molecular weight \leq 700)), MARIN POLLUTANT
'ATA	
	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epocresin (number average molecular weight ≤ 700))
Transport hazard class(es)	
DOT	
Class	Void
Class Label	9 Miscellaneous dangerous substances and articles
	,
Packing group DOT	Void
ADR, IMDG, IATA	voia III
Environmental hazards:	
Environmeniai nazaras: Marine pollutant:	Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
Special precautions for user	Warning: Miscellaneous dangerous substances and articles
Hazard identification number (Kemler code)	
EMS Number:	F-A,S-F
Stowage Category	A

(Contd. on page 8)

Printing date 01/16/2023 Reviewed on 01/16/2023

Trade name: UNIMOUNT (RESIN)

	(Contd. of page
· Transport/Additional information:	
$\cdot ADR$	
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANC.
, and the second	LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A
	(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAG
	MOLECULAR WEIGHT ≤ 700)), 9, III

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):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

None of the ingredients is listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· 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.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

(Contd. on page 9)

Printing date 01/16/2023 Reviewed on 01/16/2023

Trade name: UNIMOUNT (RESIN)

(Contd. of page 8)

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



· Signal word Warning

· Hazard-determining components of labeling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) 1,6-Hexandiol-diglycidylether

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

· Precautionary statements

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

Wash thoroughly after handling.

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

Wear protective gloves / 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.

Take off contaminated clothing and wash it before reuse.

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

Specific treatment (see on this label).

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

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

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Contact:
- · Date of preparation / last revision 01/16/2023
- · 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

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

(Contd. on page 10)

Printing date 01/16/2023 Reviewed on 01/16/2023

Trade name: UNIMOUNT (RESIN)

(Contd. of page 9)

REL: Recommended Exposure Limit 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