

Safety Data Sheet

acc. to OSHA HCS


Printing date 06/05/2017


Reviewed on 06/05/2017

1 Identification

- **Product identifier**
 - **Trade name: EP950G**
 - **Application of the substance / the mixture** One part, heat cured epoxy adhesive
- **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
ResinLab, LLC
N109 W13300 Ellsworth Drive
Germantown, WI 53022
1-877-259-1669
www.resinlab.com
 - **Information Department:** Product Safety Department: mdsd@resinlab.com
 - **Emergency Telephone Number:**
North America - Chemtrec: 1-800-424-9300 (24 hours)
International - Chemtrec: 01-703-527-3887 (24 hours)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 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**
- 

GHS07
- **Signal word** Warning
 - **Hazard-determining components of labeling:**
Bisphenol-A-(epichlorohydrin) epoxy resin
Fenuon
 - **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 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.
If skin irritation or rash occurs: Get medical advice/attention.
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 System**
 - **NFPA ratings (scale 0 - 4)**
- 

Health = 2
Fire = 1
Reactivity = 0

NFPA special hazards (water reactivity and oxidizing property): None
- **HMIS System**
 - **HMIS-ratings (scale 0 - 4)**
- | | | |
|------------|---|----------------|
| HEALTH | 2 | Health = 2 |
| FIRE | 1 | Fire = 1 |
| REACTIVITY | 0 | Reactivity = 0 |
- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Dangerous components:**

| | | |
|--|--|---------|
| CAS: 25068-38-6 NLP: 500-033-5 Index number: 603-074-00-8 | Bisphenol-A-(epichlorohydrin) epoxy resin Aquatic Chronic 2, H411 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317 | 50-60% |
| CAS: 7429-90-5 EINECS: 231-072-3 Index number: 013-001-00-6 RTECS: BD 0330000 | Aluminum Flam. Sol. 2, H228; Water-react. 2, H261 | 20-30% |
| CAS: 67762-90-7 EC number: 614-122-2 | Siloxanes and Silicones, di-Me, reaction products with silica | 2.5-5% |
| CAS: 101-42-8 EINECS: 202-941-4 | Fenuron | 1-<2.5% |

· **Additional information:**

If the chemical name/CAS number is proprietary and or weight percentage is listed as a range, the specific chemical identity and or percentage of composition has been withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Keep warm, position comfortably and cover well.
Immediately remove any clothing soiled by the product.

· **After inhalation:**

Supply fresh air and if symptoms occur 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.
Remove contaminated clothing and shoes.
If skin rash or irritation occurs, seek medical advice.

· **After eye contact:**

Flush eyes with water for 15 minutes occasionally lifting the upper and lower eyelids. Check for and remove contact lenses.
Seek medical advice.

· **After swallowing:**

If victim is unconscious; never give anything by mouth.
If victim is conscious rinse mouth and give small amounts of water.
Get medical attention if you feel unwell.

· **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**
Check section 11 Toxicological Information for further relevant information.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Alcohol resistant foam
Fire-extinguishing powder
Carbon dioxide
water fog

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Phenolic compounds
Nitrogen oxides (NOx)
Formaldehyde, a skin and lung sensitizer and a regulated carcinogen, may be formed during fires.
Carbon dioxide (CO₂) and Carbon monoxide (CO)

· **Advice for firefighters**

· **Protective equipment:**

If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).
As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.

· **Environmental precautions:**

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.

· **Methods and material for containment and cleaning up:**

For large spills: provide diking or containment to minimize spreading. If possible pump and store material in appropriate container.
For small spills: ventilate and wash area. Collect spills and absorbant material in appropriate container.
Ensure adequate ventilation.

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Allow molten product to cool.
 Non sparking tools should be used.
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.
 Keep away from incompatible material(s).
 Avoid any release into the environment.
 For industrial or professional use only
 Do not breathe dust/fumes/mist/vapor/spray.
 Avoid contact with eyes, skin and clothing.
 Keep away from heat, sparks, flames and ignition sources.
 Observe all the personal protection requirements in Section 8.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Provide ventilation for receptacles.
 Keep stored in accordance with local, regional, national, and international regulations.

8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

OSHA PEL Short-term value: 15 mg/m³

US ACGIH Short-term value: 10 mg/m³

101-42-8 Fenuron

ACGIH Short-term value: 10 mg/m³

10mg/m³ inhalable and 3mg/m³ respirable

- **Additional Occupational Exposure Limit Values for possible hazards during processing:** None.

- **Exposure controls**

If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

If exposure limits have not been established, maintain airborne levels to an acceptable level.

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Be sure to clean skin thoroughly after work and before breaks.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Avoid contact with the eyes and skin.

- **Personal Protective Equipment (PPE)**

- **Breathing equipment:**

Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

- **Protection of hands:**

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

- **Material of gloves**



Chemical resistant gloves

- **Eye protection:**



Safety Glasses with side shields

- **Body protection:** Appropriate chemical resistant clothing.

- **Limitation and supervision of exposure into the environment**

No further relevant information.

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The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

- Form: Pasty
- Color: Grey
- Odor: Mild epoxy odor
- Odor threshold: Not determined.

· pH-value: Not determined.

Change in condition

- Melting point/Melting range: Undetermined.
- Boiling point/Boiling range: Undetermined.

· Flash point: >93 °C (>199 °F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: Not determined.

· 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: Not determined.

· Vapor Density: not determined

· Density at 20 °C (68 °F): 1.4 g/cm³ (11.683 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/water): Not determined.

· Henry's Law Constant: Not determined.

Viscosity:

- Dynamic: Not determined.
- Kinematic: Not determined.
- VOC content: 0.0 g/l / 0.00 lb/gal

10 Stability and reactivity

· **Reactivity** Not a regulated physical hazard under GHS.

· **Hazardous Reactivity and Chemical Stability** Stable under normal conditions of use, storage and temperatures.

· **Thermal decomposition / conditions to be avoided:**

To avoid thermal decomposition do not overheat.
No decomposition if used and stored according to specifications.

· **Possibility of hazardous reactions** In contact with incompatible materials.

· **Conditions to avoid** Keep away from heat, sparks, flame and any other ignition sources.

Incompatible materials:

Water
Nitrates
Oxidizing agents
Mercaptans
Acids
Amines
Bases (Alkalis)

· **Hazardous decomposition products:**

Possible in traces.
Refer to section 5.

Additional information:

As long as the prescribed application concentrations are maintained there is no danger that stable emulsions will form.

11 Toxicological information

Information on toxicological effects

Acute toxicity:

- **LD/LC50 values that are relevant for classification:**
- Not a classified acute oral hazard.

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25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

| | | |
|------------|----------|--|
| Oral | LD50 | 11400 mg/kg (rat) |
| Dermal | LD50 | 20000 mg/kg (rabbit) (Test guideline not available) |
| Inhalative | LC50/4 h | (Test species: n/a) (Toxicity not expected based on the acute oral data) |

7429-90-5 Aluminum

| | | |
|------------|----------|---|
| Oral | LD50 | > 15900 mg/kg (rat) (OECD TG 401) No death; no changes in gross pathology or clinical signs. Reference: ECHA (2011). |
| Dermal | LD50 | (No data available) Based on the acute oral toxicity test, it was expected that toxicity to mammals via dermal application of the substance was not a significant concern and resulted in a similar lack of acute toxicity. Thus, the substance was not classified as an acute dermal hazard. |
| Inhalative | LC50/4 h | (No data available) Due to wetted form of the substance, inhalative effects from dust form can be seen as negligible. Meanwhile, based on the acute oral toxicity test, it was expected that toxicity to mammals via inhalation of the substance was not a significant concern and resulted in a similar lack of acute toxicity. Thus, the substance was not classified as an acute inhalation hazard. |

461-58-5 Cyanoguanidine

| | | |
|------------|----------|---|
| Oral | LD50 | > 30000 mg/kg (rat) (LD0; no death observed) Reference: OECD SIDS (2004). |
| Dermal | LD50 | (rabbit) (LD0 (OECD TG 402) > 2000 mg/kg; no death occurred) At 2000 mg/kg, no mortality or any clinical signs appeared. Reference: ECHA (2011). |
| Inhalative | LC50/4 h | (rat) (OECD TG 403) The substance did not cause mortality or any noticeable deleterious effects after a four-hour exposure with a saturated dispersion of 259 mg/m ³ to rats; the substance dust therefore had a very low acute inhalation toxicity potential. Reference: ECHA (2011). |

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

| | | |
|------------|----------|--|
| Oral | LD50 | >5000 mg/kg (rat) (test method not specified) |
| Dermal | LD50 | (Test species: n/a) (Toxicity not expected based on acute oral data) |
| Inhalative | LC50/4 h | (Test species: n/a) (Toxicity not expected based on acute oral data) |

101-42-8 Fenuron

| | | |
|------------|----------|---|
| Oral | LD50 | 6400 mg/kg (rat) |
| Dermal | LD50 | >8000 mg/kg (rat) Reference: Vendor SDS 2014 |
| Inhalative | LC50/4 h | (No data available) |

- **Specific symptoms in biological assay:** Not a classified acute dermal hazard.
- **Primary irritant effect:** Not a classified acute inhalative hazard.
 - **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:****25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin**

EC50 irritating mg/kg (rabbit)

7429-90-5 Aluminum

EC50 not irritating mg/kg (rabbit) (OECD TG 404)
Erythema and edema: 0 (Mean score of all treated animals; Time point: 24+48+72 hrs); the substance was not irritating to skin.
Reference: ECHA (2011).

461-58-5 Cyanoguanidine

EC50 mildly irrit. mg/kg (rabbit) (Patch test and Draize test)
Erythema (intact skin): 0.2 (Max. 1; mean score of all treated animals; time point: 24 hrs); fully reversible within 72 hrs.
Erythema (abraded skin): 0.3 (Max. 1; mean score of all treated animals; time point: 24 hrs); fully reversible within 72 hrs.
Edema (both intact and abraded skin): 0 (Max. 1; mean score of all treated animals; time point: 24 hrs); the substance was not irritating to rabbit skin based on the criteria.
(guinea pig)
Slight irritation was found in pigs at 24 hours after application; the substance was therefore classified as a mild dermal (Category 3).
Reference: ECHA (2011) and OECD SIDS (2004).

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67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

EC50 Non-irritating mg/kg (Test species: n/a) (Primary irritation index=0)

101-42-8 Fenuron

EC50 (guinea pig)

There were practically non-irritating effects to intact skin, but only moderate irritation to abraded skin observed in guinea pigs.
Reference: ACToR (2011).



- **Persistence and degradability** No further relevant information available.
- **Other information:** The product is easily biodegradable.
- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No data available.
 - **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
 - **Remark:** Toxic for fish
- **Additional ecological information:** The product is non-rapid degradable, and low or not highly bioaccumulative.
 - **General notes:**
 - 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:** None of the ingredients is listed.
 - **vPvB:** None of the ingredients is listed.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:**
 - Must be specially treated adhering to official regulations.
 - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
 - **Recommendation:** Dispose of according to your local waste regulations.

14 Transport information

- **UN-Number**
 - DOT not regulated
 - IMDG, IATA UN3082
- **UN proper shipping name**
 - IMDG, IATA Environmentally hazardous substance, liquid, N.O.S. (Bisphenol-A-(epichlorohydrin)epoxy resin)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A-(epichlorohydrin) epoxy resin)
- **Transport hazard class(es)**
 - IMDG, IATA

 - Class 9 Miscellaneous dangerous substances and articles
 - Label 9
- **Packing group**
 - DOT not regulated
 - IMDG, IATA III
- **Environmental hazards:**
 - **Marine pollutant:** Product contains environmentally hazardous substances: Bisphenol-A-(epichlorohydrin) epoxy resin
Yes
 - **Special marking (IATA):** Symbol (fish and tree)
Symbol (fish and tree)
- **Special precautions for user**
 - **Danger code (Kiemler):** Warning: Miscellaneous dangerous substances and articles
 - **EMS Number:** 90
 - **Stowage Category:** F-A,S-F
A
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:**
 - **IMDG**
 - **Limited quantities (LQ)** 5L

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· 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 SUBSTANCES,
 LIQUID, N.O.S. (BISPHENOL-A-(EPICHLOROHYDRIN) EPOXY
 RESIN), 9, III

15 Regulatory information

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

· SARA Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· SARA Section 313 (Specific toxic chemical listings):

7429-90-5 Aluminum

20-30%

· SARA Section 311/312 (Hazardous Chemical Inventory Reporting)

25068-38-6 Bisphenol-A-(epichlorohydrin) epoxy resin

A, C 50-60%

· Hazard Abbreviations for SARA 311/312

 A - Acute Health Hazard
 C - Chronic Health Hazard
 F - Fire Hazard
 R - Reactive Hazard
 S - Sudden Release of Pressure Hazard

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

106-89-8 Epichlorohydrin

This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

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:

106-89-8 1-chloro-2,3-epoxypropane

· 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 established by ACGIH)

7429-90-5 Aluminum

A4

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

None of the ingredients is listed.

· International Regulation Lists

· Chinese Chemical Inventory of Existing Chemical Substances:

All ingredients are listed.

· GHS label elements GHS label elements

· National regulations:

· Japanese Existing and New Chemical Substance List:

All ingredients are listed.

· Korean Existing Chemical Inventory:

All ingredients are listed.

· European Pre-registered substances:

All ingredients are listed.

· REACH - Substances of Very High Concern (SVHC) List:

None of the ingredients is listed.

· Restriction of Hazardous Substances Directive (RoHS) list:

None of the ingredients is listed.

· 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.

· Department Issuing (M)SDS: Product Development Department

· Contact: msds@resinlab.com

· Date of preparation / last revision 06/05/2017 / 5

· * Data compared to the previous version altered.