

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 01/26/2016

Reviewed on 01/26/2016

* 1 Identification

- **Product Identifier**
- **Trade name: High Friction Polymer (HFP) Component A**
- **Relevant identified uses of the substance or mixture and uses advised against:**
No further relevant information available.
- **Product Description** Epoxy urethane bonding agent
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
E-Chem, LLC
2944 William Street SE
Albuquerque, NM 87102
Phone: 505. 217.2121
Fax: 505.217.3721
Email: mail@e-chem.net
Web: www.e-chem.net
- **Emergency telephone number:**
Chemtrec at 1-800-424-9300 24 Hours
Outside the U.S., call Chemtrec collect at 703-527-3887

* 2 Hazard(s) Identification

- **Classification of the substance or mixture:**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS09 Environment

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



GHS07

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



GHS08



GHS09

- **Signal word:** Warning
- **Hazard-determining components of labeling:**
Epoxy resin

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Trade name: High Friction Polymer (HFP) Component A

Solvent naphtha (petroleum), heavy aromatic

· **Hazard statements:**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing cancer.

Toxic to aquatic life with long lasting effects.

· **Precautionary statements:**

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

Wear protective gloves.

Wear eye protection / face protection.

Avoid release to the environment.

Wash thoroughly after handling.

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

Obtain special instructions before use.

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

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

Continue rinsing.

Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

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

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Collect spillage.

Take off contaminated clothing and wash it before reuse.

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

· **Hazard(s) not otherwise classified (HNOC):** None known

* 3 Composition/Information on Ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

25068-38-6	Epoxy resin	60-90%
	⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	

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Trade name: High Friction Polymer (HFP) Component A

64742-94-5	Solvent naphtha (petroleum), heavy aromatic	<5%
	 Flam. Liq. 1, H224;  Carc. 2, H351; Asp. Tox. 1, H304;  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315; STOT SE 3, H336	

4 First-Aid Measures

- **Description of first aid measures:**
- **After inhalation:**
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation occurs, consult a doctor.
- **After eye contact:**
Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
Do not induce vomiting.
- **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.

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:**
Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:**
Wear protective equipment. Keep unprotected persons away.
- **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 (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Dispose contaminated material as waste according to section 13.
- **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.

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7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
 - Ensure good ventilation/exhaustion at the workplace.
 - Prevent formation of aerosols.
 - Avoid contact with skin, eyes and clothing
 - Avoid breathing fume/gas/mist/vapors/spray.
 - Do not take internally.
 - Use personal protection equipment as outlined in section 8.
- **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:**
 - Store in a cool, dry place.
 - Store in a well ventilated place.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

* 8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**

· **Components with occupational exposure limits:**

25068-38-6 Epoxy resin

STEL	Short-term value: 5 mg/m ³ Long-term value: 10 mg/m ³
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- **Additional information:** The lists that were valid during the creation of this SDS 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 and wash before reuse.
 - 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.

- **Penetration time of glove material:**
 - The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

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Trade name: High Friction Polymer (HFP) Component A

· **Eye protection:**



Tightly sealed goggles

* 9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:

Liquid

Color:

Clear to light amber

· **Odor:**

Mild

· **Odor threshold:**

Not determined.

· **pH-value:**

Acidic

· **Change in condition**

Melting point/Melting range:

Not determined.

Boiling point/Boiling range:

Not determined.

· **Flash point:**

248 °C (478 °F)

· **Flammability (solid, gaseous):**

Not applicable.

· **Ignition temperature:**

Decomposition temperature:

Not determined.

· **Auto igniting:**

Product is not self-igniting.

· **Danger of explosion:**

Product does not present an explosion hazard.

· **Explosion limits:**

Lower:

Not determined.

Upper:

Not determined.

· **Vapor pressure:**

Not determined.

· **Density @ 20 °C (68 °F):**

1.2 g/cm³ (10.014 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.

· **Viscosity:**

Dynamic:

Not determined.

Kinematic:

Not determined.

· **Solvent content:**

Organic solvents:

0.0 %

Solids content:

90.0 %

· **Other information:**

No further relevant information available.

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10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **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:**
Strong oxidizing agents.
Strong acids, strong bases
- **Hazardous decomposition products:** Carbon dioxide, carbon monoxide and nitrogen oxides.

* 11 Toxicological Information

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

- **LD/LC50 values that are relevant for classification:**

25068-38-6 Epoxy resin

Oral LD50 >2000 mg/kg (rat)

Dermal LD50 >2000 mg/kg (rat)

64742-94-5 Solvent naphtha (petroleum), heavy aromatic

Oral LD50 >6000 mg/kg (rat)

Dermal LD50 >2000 mg/kg (rat)

- **Primary irritant effect:**
- **On the skin:**
Irritant to skin and mucous membranes.
May cause an allergic skin reaction.
- **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:
Harmful
Irritant

- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

* 12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:**
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

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Trade name: High Friction Polymer (HFP) Component A

25068-38-6 Epoxy resin

EC50 3.6 mg/l (daphnia)

- **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:**
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.
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:**
Do not allow product to reach sewage system.
It is the generators responsibility to determine if the waste meets applicable definitions of hazardous waste.
State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state and federal environmental regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

* 14 Transport Information

- **UN-Number:**
- **DOT** Non-Regulated Material
- **ADR, IMDG, IATA** UN3082
- **UN proper shipping name:**
- **DOT** Non-Regulated Material
- **ADR** UN3082 Environmentally hazardous substances, liquid, n.o.s. (Epoxy resin)
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin), MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
- **Transport hazard class(es):**
- **DOT**
- **Class:** Non-Regulated Material

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Trade name: High Friction Polymer (HFP) Component A

· **ADR**



· **Class:** 9 (M6) Miscellaneous dangerous substances and articles
 · **Label:** 9

· **IMDG, IATA**



· **Class:** 9 Miscellaneous dangerous substances and articles
 · **Label:** 9
 · **Packing group:**
 · **DOT** Non-Regulated Material
 · **ADR, IMDG, IATA** III
 · **Environmental hazards:** Product contains environmentally hazardous substances: Epoxy resin
 · **Special marking (ADR):** Symbol (fish and tree)
 · **Special marking (IATA):** Symbol (fish and tree)
 · **Special precautions for user:** Warning: Miscellaneous dangerous substances and articles
 · **Danger code (Kemler):** 90
 · **EMS Number:** F-A,S-F
 · **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
 · **Transport/Additional information:**

· **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":** UN3082, Environmentally hazardous substances, liquid, n.o.s. (Epoxy resin), 9, III

* 15 Regulatory Information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
 · **SARA (Superfund Amendments and Reauthorization):**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

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Trade name: High Friction Polymer (HFP) Component A

· TSCA (Toxic Substances Control Act):
All ingredients are listed.
· California Proposition 65:
· Chemicals known to cause cancer:
None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients are listed.
· Carcinogenic categories:
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



GHS07 GHS08 GHS09

· **Signal word:** Warning

· **Hazard-determining components of labeling:**

Epoxy resin
Solvent naphtha (petroleum), heavy aromatic

· **Hazard statements:**

Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
Toxic to aquatic life with long lasting effects.

· **Precautionary statements:**

Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves.
Wear eye protection / face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.

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Trade name: High Friction Polymer (HFP) Component A

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

Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

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

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Collect spillage.

Take off contaminated clothing and wash it before reuse.

Store locked up.

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

National regulations:

The product is subject to be classified according with the latest version of the regulations on hazardous substances.

State Right to Know:

25068-38-6	Epoxy resin ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	60-90%
64742-94-5	Solvent naphtha (petroleum), heavy aromatic ⚠ Flam. Liq. 1, H224; ⚠ Carc. 2, H351; Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	<5%

None of the ingredients are listed.

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

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

Date of preparation / last revision: 01/26/2016 / 6

Abbreviations and acronyms:

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

REL: Recommended Exposure Limit

Flam. Liq. 1: Flammable liquids, Hazard Category 1

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

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Trade name: High Friction Polymer (HFP) Component A

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· *** Data compared to the previous version altered.**SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106