

Safety Data Sheet

ALUMBOND® H-450 6.5oz./184gr REPAIR KIT RESIN



SDS Revision Date:

04/10/2018

1. Identification

1.1. Product identifier

Product Identity ALUMBOND® H-450 6.5oz./184gr REPAIR KIT RESIN

Alternate Names ALUMBOND® H-450 6.5oz./184gr REPAIR KIT RESIN

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use See Technical Data Sheet.

Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Hopper International, INC
PO Box 6988
Hilton Head Island, SC 29938

Emergency

CHEMTREC (USA) (800) 424-9300

Customer Service: Hopper International, INC (843) 363-5681

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Irrit. 2;H315 Causes skin irritation.
Eye Irrit. 2;H319 Causes serious eye irritation.
Skin Sens. 1;H317 May cause an allergic skin reaction.
Aquatic Chronic 2;H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements



Danger

H315 Causes skin irritation.

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H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P321 Specific treatment (see information on this label).

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

[Storage]:

No GHS storage statements

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Bisphenol A - Epichlorohydrin polymer CAS Number: 0025068-38-6	50 - 75	Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Chronic 2;H411	[1]
Aluminum powder (Al) (stabilized) CAS Number: 0007429-90-5	25 - 50	Flam. Sol. 1;H228	[1][2]
Bisphenol F epoxy resin CAS Number: 0028064-14-4	1 - 5	Skin Irrit. 2;H315 Eye Irrit. 2;H319	[1]

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		Skin Sens. 1;H317 Aquatic Chronic 2;H411	
Amorphous silica, hydrophobic CAS Number: 0067762-90-7	1 - 5	Not Classified	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview	Primary route(s) of entry: Ingestion, skin absorption, inhalation, eyes. Health hazard/effects of over exposure: Inhalation: Heated vapors may cause respiratory irritation. Eyes: Moderately irritating. Skin: Mildly irritating. May cause allergic reaction evidenced by rashes. Ingestion: No specific information. Slightly toxic. Chronic Effects of Overexposure: Prolonged contact with the skin may result in skin irritation and sensitization. Carcinogenicity: This material is not considered to be carcinogenic by NTP, IARC or OSHA. Mutagenicity (Ames Test): Both positive and negative results for CAS# 25068-38-6. Medical conditions aggravated by exposure: Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product. Pre-existing skin or lung allergies may increase the chance of developing increased allergy symptoms. Treat symptomatically. See section 2 for further details.
Eyes	Causes serious eye irritation.
Skin	May cause an allergic skin reaction. Causes skin irritation.

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Section 5. Fire-fighting measures

5.1. Extinguishing media

Use water fog, foam, carbon dioxide (CO₂) or dry chemical

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Fumes produced when heated to decomposition may include: carbon monoxide, carbon dioxide, ammonia, and nitrogen oxides.

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

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus and complete personal protective equipment. Remove all ignition sources. Use a water spray to cool fire exposed containers.

ERG Guide No. ----

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Steps to be taken in case material is released or spilled: Dike spill. Absorb with inert material and collect for disposal. Flush area with water. Prevent washings from entering waterways.

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials: Strong oxidizing agents and mineral acids. Uncontrolled curing with amine curing agents in masses greater than 2 inches thick.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

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No data available.

Section 8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0007429-90-5	Aluminum	OSHA	TWA 15 mg/m ³ (total) TWA 5 mg/m ³ (resp)
		ACGIH	TWA: 1.0 mg/m ³
		NIOSH	TWA 10 mg/m ³ (total) TWA 5 mg/m ³ (resp)
0025068-38-6	Bisphenol A - Epichlorohydrin polymer	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0028064-14-4	Bisphenol F epoxy resin	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0067762-90-7	Amorphous silica, hydrophobic	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

8.2. Exposure controls

Respiratory

Wear a properly fitted NIOSH/MSHA approved respirator whenever exposure to vapor/mist is likely unless levels are below applicable limits.

Eyes

Chemical splash goggles or safety glasses with side shields.

Skin

For operations where contact can occur, coveralls, apron and rubber foot covering are recommended. A safety shower and eye wash facility should be available. For operations where contact can occur, wear impervious gloves (neoprene, nitrile).

Engineering Controls

Local exhaust is recommended when appropriate to control employee exposure. Mechanical is not recommended as the sole means of controlling employee exposure.

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Silver Paste Liquid

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Odor	Odorless
Odor threshold	Not determined
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	> 500°F(PMCC)
Flash Point	(method used): > 450°F (PMCC)
Evaporation rate (Ether = 1)	N.A.
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: N.A. Upper Explosive Limit: N.A.
Vapor pressure (Pa)	(mmHg) @ 20°C: < 1mm
Vapor Density	(Air = 1): > 1
Specific Gravity	Not Measured
Solubility in Water	Insoluble
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
Percent Volatile (by volume)	0%
Weight per gallon	12.8 lbs.
9.2. Other information	No other relevant information.

Section 10. Stability and reactivity

10.1. Reactivity

Hazardous polymerization may occur if product is not handled as per instructions.

10.2. Chemical stability

This product requires another product to react at room temperature. Mix and use product in accordance with directions for safety. Excessive heat and fume generation can occur if improperly handled. Not sensitive to mechanical impact.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Excessive heat.

10.5. Incompatible materials

Strong oxidizing agents and mineral acids. Uncontrolled curing with amine curing agents in masses greater than 2 inches thick.

10.6. Hazardous decomposition products

Fumes produced when heated to decomposition may include: carbon monoxide, carbon dioxide,

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ammonia, and nitrogen oxides.

Section 11. Toxicological information

Acute toxicity

Based on the properties of the epoxy constituents and considering toxicological data on similar preparations this preparation may be an irritant and a skin and respiratory sensitizer. Low molecular weight epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and sensitization, possibly with cross-sensitization to other epoxies. Skin contact with the preparation and exposure to spray mist and vapor should be avoided.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Bisphenol A - Epichlorohydrin polymer - (25068-38-6)	> 5,000.00, Rat - Category: NA	20,000.00, Rabbit - Category: NA	No data available	No data available	No data available
Aluminum - (7429-90-5)	No data available	No data available	No data available	No data available	No data available
Bisphenol F epoxy resin - (28064-14-4)	2,000.00, Rat - Category: 4	No data available	No data available	No data available	No data available
Amorphous silica, hydrophobic - (67762-90-7)	No data available	>2,000.00, Rat - Category: 5	No data available	No data available	No data available

Carcinogen Data

CAS No.	Ingredient	Source	Value
0007429-90-5	Aluminum	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0025068-38-6	Bisphenol A - Epichlorohydrin polymer	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0028064-14-4	Bisphenol F epoxy resin	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0067762-90-7	Amorphous silica, hydrophobic	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

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Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Section 12. Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Bisphenol A - Epichlorohydrin polymer - (25068-38-6)	3.10, Pimephales promelas	1.40, Daphnia magna	Not Available
Aluminum - (7429-90-5)	Not Available	Not Available	Not Available
Bisphenol F epoxy resin - (28064-14-4)	9.00, Oncorhynchus mykiss	9.00, Daphnia magna	Not Available
Amorphous silica, hydrophobic - (67762-90-7)	> 5,000.00, Fish	> 5,000.00, Daphnia magna	5,001.00 (72 hr), Algae

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

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12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

Section 13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Regulated	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: No; (Bisphenol A - Epichlorohydrin polymer)		
14.6. Special precautions for user	No further information		

Section 15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.		
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.		
WHMIS 1988 Classification	D2B F		
US EPA Tier II Hazards	Fire: No		
	Sudden Release of Pressure: No		
	Reactive: Yes		

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Immediate (Acute): Yes

Delayed (Chronic): No

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Aluminum

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other information

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The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H228 Flammable solid.

H261 In contact with water releases flammable gases.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

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