

AF35LVE

LOW VISCOSITY STRUCTURAL EPOXY

CERTIFICATION

MATERIAL SAFETY DATA



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888.859.6060



AF35LVE STRUCTURAL EPOXY

PART A

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Allfasteners AF35LVE Part A Components

1.2 OTHER MEANS OF IDENTIFICATION

Other Means of Identification: Not available.

1.3 PRODUCT TYPE

Product Type: Epoxy

1.4 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE & USES ADVISED AGAINST

Identified Uses: ANCHOR RODS

1.5 SUPPLIERS DETAILS

Company Name: Allfasteners USA LLC
480 Meadow Lane
Carlstadt, NJ 07072
United States

Telephone: 888.859.6060

Fax: 201.783.8840

Email: sales@allfasteners.com

1.6 EMERGENCY PHONE NUMBER

Emergency Telephone: 888.859.6060

SECTION 2: HAZARDOUS IDENTIFICATION

2.1 OSHA/HCS STATUS

OSHA / HCS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 FR 1910.1200)

Classification of the Substance or Mixture: SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 2

**AF35LVE STRUCTURAL EPOXY**

PART A

2.2 GHS LABEL ELEMENTS

Hazard Pictograms:



Signal Word: Warning.

Hazard Statements: H319 - Causes serious eye irritation.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H411 - Toxic to aquatic life with long lasting effects.

2.3 PRECAUTIONARY STATEMENTS

Prevention: P280 - Wear protective gloves. Wear eye or face protection.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapor.
P264 - Wash hands thoroughly after handling.
P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.

Response: P391 - Collect spillage.
P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
P333 + P313 - If skin irritation or rash occurs: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

Storage: Not applicable.

Disposal: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations

Hazards Not
Otherwise Classified: None known.**SECTION 3: COMPOSITION/INFORMATION OF INGREDIENTS****3.1 SUBSTANCE/MIXTURE**

Substance/Mixture: Mixture

Other Means of Identification: Not available.

**AF35LVE STRUCTURAL EPOXY**

PART A

3.2 CAS NUMBER/OTHER IDENTIFIERS

CAS Number: Not applicable.

Product Code: Not available.

REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN); EPOXY RESIN

CAS	PERCENT
25068-38-6	≥75 - ≤90

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] DERIVS.

CAS	PERCENT
68609-97-2	≥5 - ≤10

1,3-BIS(2,3-EPOXYPROPOXY)-2,2-DIMETHYLPROPANE

CAS	PERCENT
17557-23-2	5 - 10

TRADE SECRET 3

CAS	PERCENT
-	Proprietary

TRADE SECRET 2

CAS	PERCENT
-	Proprietary

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: FIRST AID MEASURES**4.1 DESCRIPTION OF NECESSARY FIRST AID MEASURES**

Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

**AF35LVE STRUCTURAL EPOXY**

PART A

4.1 DESCRIPTION OF NECESSARY FIRST AID MEASURES (CONT'D)

- Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin Contact:** Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion:** Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED**POTENTIAL ACUTE HEALTH EFFECTS**

- Eye Contact:** Causes serious eye irritation.
- Inhalation:** No known significant effects or critical hazards.
- Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.
- Ingestion:** No known significant effects or critical hazards.

OVER-EXPOSURE SIGNS/SYMPTOMS

- Eye Contact:** Adverse symptoms may include the following: pain or irritation, watering, redness.
- Inhalation:** No known significant effects or critical hazards.
- Skin Contact:** Adverse symptoms may include the following: irritation, redness.
- Ingestion:** No known significant effects or critical hazards.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY

- Notes to Physician:** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific Treatments:** No specific treatment.
- Protection of First-Aiders:** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SEE TOXICOLOGY INFORMATION (SECTION 11)

**AF35LVE STRUCTURAL EPOXY**

PART A

SECTION 5: FIRE-FIGHTING MEASURES**5.1 EXTINGUISHING MEDIA**

Suitable Extinguishing Media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable Extinguishing Media: None known.

Specific Hazards Arising from the Chemical: In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous Thermal Decomposition Products: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds.

Special protective Actions for Fire-Fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special Protective Equipment for Fire-Fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

For Non-Emergency Personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For Emergency Responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.2 METHOD AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Small Spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.



AF35LVE STRUCTURAL EPOXY

PART A

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Protective Measures: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container

Advice on General Occupational Hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for Safe Storage, Including Any Incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS

INGREDIENT NAME	EXPOSURE LIMITS
Reaction Product: Bisphenol-A-(Epichlorhydrin); Epoxy Resin	None
Oxirane, Mono[(C12-14-Alkyloxy)Methyl] Derivs.	None
1,3-bis(2,3-Epoxypropoxy)-2,2-Dimethylpropane	None
Trade Secret 3	None
Trade Secret 2	None

Appropriate Engineering Controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

**AF35LVE STRUCTURAL EPOXY**

PART A

8.2 INDIVIDUAL PROTECTION MEASURES

- Hygiene Measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/Face Protection:** Safety eye-wear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

8.3 SKIN PROTECTION

- Hand Protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body Protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other Skin Protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory Protection:** Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

SECTION 9: PHYSICAL AND CHEMICAL APPEARANCE**9.1 APPEARANCE**

Physical State:	Liquid	Lower and Upper Explosive (Flammable) Limits:	Not Applicable.
Color:	Straw [Light]	Vapor Pressure:	Not Available.
Odor:	Slight	Vapor Density:	Not Available.
Density:	9.34 lbs/gal	Specific Gravity:	1.121
Odor Threshold:	Not Available.	Solubility:	Not Available.
pH:	Not Applicable.	Partition Coefficient: Noctanol/Water	Not Available.
Melting Point:	Not Available.	Auto-Ignition Temperature:	Not Applicable.
Boiling Point:	Not Available.	Decomposition Temperature:	Not Applicable.
Flash Point:	Not Applicable.	Volatile Organic Compounds:	See section 9 of part B for VOC content
Evaporation Rate:	Not Available.	Viscosity:	Kinematic (room temperature): 10 to 12 cm ² /s (1000 to 1200 cPs)
Flammability (solid, gas):	Not Applicable.		
Flow Time (ISO 2431):	Not Available.		



AF35LVE STRUCTURAL EPOXY

PART A

SECTION 10: STABILITY AND REACTIVITY

10.1 STABILITY AND REACTIVITY

Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Chemical Stability:	The product is stable.
Possibility of Hazardous Reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to Avoid:	No specific data.
Incompatible Materials:	Not available.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY

OXIRANE, MONO[(C12-14-ALKYLOXY) METHYL] DERIVS.

ORAL	RAT	LD50	17100	mg/kg
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1,3-BIS(2,3-EPOXYPROPOXY)-2,2-DIMETHYLPROPANE

ORAL	RAT	LD50	4500	mg/kg
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IRRITATION/CORROSION

INGREDIENT NAME	RESULT	SPECIES	SCORE	EXPOSURE	OBSERVATION
Reaction Product: Bisphenol-A-(Epichlorhydrin); Epoxy Resin	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 µL	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
Oxirane, Mono[(C12-14-Alkyloxy) Methyl] Derivs.	Skin - Moderate irritant	Rabbit	-	24 hours 500 µL	-
Trade Secret 3	Skin - Mild irritant	Rabbit	-	24 hours 500 µL	-

Sensitization:	There is no data available.	Specific Target Organ Toxicity (Single Exposure):	There is no data available.
Mutagenicity:	There is no data available.	Specific Target Organ Toxicity (Repeated Exposure):	There is no data available.
Carcinogenicity:	There is no data available.	Aspiration Hazard:	There is no data available.
Reproductive Toxicity:	There is no data available.		
Teratogenicity:	There is no data available.		

**AF35LVE STRUCTURAL EPOXY**

PART A

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS (CONT'D)**Information on the Likely****Routes of Exposure:** Dermal contact. Eye contact. Inhalation. Ingestion.**11.2 POTENTIAL ACUTE HEALTH EFFECTS**

- Eye Contact:** Causes serious eye irritation.
- Inhalation:** No known significant effects or critical hazards.
- Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.
- Ingestion:** No known significant effects or critical hazards.

11.3 SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

- Eye Contact:** Adverse symptoms may include the following: pain or irritation, watering, redness.
- Inhalation:** No known significant effects or critical hazards.
- Skin Contact:** Adverse symptoms may include the following: irritation, redness.
- Ingestion:** No known significant effects or critical hazards.

11.4 DELAYED AND IMMEDIATE EFFECTS/CHRONIC EFFECTS FROM SHORT & LONG TERM EXPOSURE**SHORT TERM EXPOSURE**

- Potential Immediate Effects:** No known significant effects or critical hazards.
- Potential Delayed Effects:** No known significant effects or critical hazards.

LONG TERM EXPOSURE

- Potential Immediate Effects:** No known significant effects or critical hazards.
- Potential Delayed Effects:** No known significant effects or critical hazards.

POTENTIAL CHRONIC HEALTH EFFECTS

- General:** Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity:** No known significant effects or critical hazards.
- Mutagenicity:** No known significant effects or critical hazards.
- Teratogenicity:** No known significant effects or critical hazards.
- Developmental Effects:** No known significant effects or critical hazards.
- Fertility Effects:** No known significant effects or critical hazards.



AF35LVE STRUCTURAL EPOXY

PART A

11.5 NUMERICAL MEASURES OF TOXICITY

ACUTE TOXICITY ESTIMATES

ROUTE	ATE VALUE
Oral	75000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

12.1 ECOLOGICAL INFORMATION

Toxicity: There is no data available.

Persistence and Degradability: There is no data available.

BIOACCUMULATIVE POTENTIAL

INGREDIENT NAME	LogPow	BCF	POTENTIAL
Reaction Product: Bisphenol-A-(Epichlorhydrin); Epoxy Resin	2.64 to 3.78	31	low
Oxirane, Mono[(C12-14-Alkyloxy) Methyl] Derivs.	3.77	160 to 263	low
Trade Secret 3	2.7	-	low
Trade Secret 2	-	-	-

MOBILITY IN SOIL

Soil/water Partition Coefficient (KOC): Not available.

Other Adverse Effects: No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 DISPOSAL CONSIDERATIONS

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.



AF35LVE STRUCTURAL EPOXY

PART A

SECTION 14: TRANSPORT INFORMATION

14.1 TRANSPORT INFORMATION

	DOT CLASSIFICATION	IMDG	IATA
UN number	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No	No	No
Additional information	-	-	-

Special Precautions for User: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in Bulk According to Annex II of MARPOL and the IBC Code: Not available.

SECTION 15: REGULATORY INFORMATION

15.1 REGULATORY INFORMATION

U.S. Federal Regulations: TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Not listed

Clean Air Act Section 602 Class I Substances: Not listed

Clean Air Act Section 602 Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Not listed

15.2 SARA 302/304

COMPOSITION/INFORMATION ON INGREDIENTS

No products were found.

SARA 304 RQ: Not applicable.



AF35LVE STRUCTURAL EPOXY

PART A

15.3 SARA 311/312

Classification: Skin corrosion/irritation - Category 2
Serious Eye Damage/Eye Irritation - Category 2A
Skin Sensitization - Category 1

COMPOSITION/INFORMATION ON INGREDIENTS

NAME	CLASSIFICATION
Reaction Product: Bisphenol-A-(Epichlorhydrin); Epoxy Resin	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1
Oxirane, Mono[(C12-14-Alkyloxy)Methyl] Derivs.	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1
1,3-bis(2,3-Epoxypropoxy)-2,2-Dimethylpropane	SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1
Trade Secret 3	SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1
Trade Secret 2	SKIN SENSITIZATION - Category 1

15.4 SARA 313

There is no data available.

15.5 STATE REGULATIONS

Massachusetts: None of the components are listed.
New York: None of the components are listed.
New Jersey: None of the components are listed.
Pennsylvania: None of the components are listed.

CALIFORNIA PROP. 65

No products were found.

SECTION 16: OTHER INFORMATION

16.1 PROCEDURE USED TO DERIVE THE CLASSIFICATION

CLASSIFICATION	JUSTIFICATION
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 2	Calculation method

**AF35LVE STRUCTURAL EPOXY**
PART A**16.2 HISTORY**

Date of issue mm/dd/yyyy: 01/30/2018
Version: 2
Prepared By: KMK Regulatory Services Inc.

16.3 HAZARDOUS MATERIAL INFORMATION SYSTEM (USA)

TYPE	RATING
Health	2
Flammability	0
Physical Hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

16.3 DISCLAIMER**NOTICE TO READER**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**AF35LVE STRUCTURAL EPOXY**
PART B**SECTION 17: IDENTIFICATION****17.1 PRODUCT IDENTIFIER**

Allfasteners AF35LVE Part B Components

17.2 OTHER MEANS OF IDENTIFICATION

Other Means of Identification: Not available.

17.3 PRODUCT TYPE

Product Type: Epoxy

17.4 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE & USES ADVISED AGAINST

Identified Uses: ANCHOR RODS

17.5 SUPPLIERS DETAILS

Company Name: Allfasteners USA LLC
480 Meadow Lane
Carlstadt, NJ 07072
United States

Telephone: 888.859.6060

Fax: 201.783.8840

Email: sales@allfasteners.com

17.6 EMERGENCY PHONE NUMBER

Emergency Telephone: 888.859.6060

SECTION 18: HAZARDOUS IDENTIFICATION**18.1 OSHA/HCS STATUS**

OSHA / HCS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

**AF35LVE STRUCTURAL EPOXY**

PART B

18.1 OSHA/HCS STATUS (CONT'D)

Classification of the Substance or Mixture:	ACUTE TOXICITY (oral) - Category 4
	SKIN CORROSION - Category 1B
	SERIOUS EYE DAMAGE - Category 1
	SKIN SENSITIZATION - Category 1
	TOXIC TO REPRODUCTION (Fertility) - Category 1B
	TOXIC TO REPRODUCTION (Unborn child) - Category 1B
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	AQUATIC HAZARD (ACUTE) - Category 1
	AQUATIC HAZARD (LONG-TERM) - Category 1

18.2 GHS LABEL ELEMENTS**Hazard Pictograms:****Signal Word:** Danger.

Hazard Statements:

- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H317 - May cause an allergic skin reaction.
- H360 - May damage fertility or the unborn child.
- H335 - May cause respiratory irritation.
- H410 - Very toxic to aquatic life with long lasting effects.

18.3 PRECAUTIONARY STATEMENTS

Prevention:

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
- P271 - Use only outdoors or in a well-ventilated area.
- P273 - Avoid release to the environment.
- P261 - Avoid breathing vapor.
- P270 - Do not eat, drink or smoke when using this product.
- P264 - Wash hands thoroughly after handling.
- P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.

**AF35LVE STRUCTURAL EPOXY**

PART B

18.3 PRECAUTIONARY STATEMENTS (CONT'D)

Response: P391 - Collect spillage.
P308 + P313 - IF exposed or concerned: Get medical attention.
P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.
P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
P333 + P313 - If skin irritation or rash occurs: Get medical attention.
P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage: P405 - Store locked up.

Disposal: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards Not
Otherwise Classified:** None known.

SECTION 19: COMPOSITION/INFORMATION ON INGREDIENTS**19.1 SUBSTANCE/MIXTURE**

Substance/Mixture: Mixture

Other Means of Identification: Not available.

19.2 CAS NUMBER/OTHER IDENTIFIERS

CAS Number: Not applicable.

Product Code: Not available.

**AF35LVE STRUCTURAL EPOXY**
PART B**19.2 CAS NUMBER/OTHER IDENTIFIERS (CONT'D)****FATTY ACIDS, TALL-OIL, REACTION PRODUCTS WITH TETRAETHYLENEPENTAMINE**

CAS	PERCENT
68953-36-6	≥10 - ≤25

4-NONYLPHENOL, BRANCHED

CAS	PERCENT
84852-15-3	≥10 - ≤25

2-PIPERAZIN-1-YLETHYLAMINE

CAS	PERCENT
140-31-8	≥10 - ≤25

BENZYL ALCOHOL

CAS	PERCENT
100-51-6	≥5 - ≤10

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE

CAS	PERCENT
2855-13-2	≥5 - ≤10

TRADE SECRET 4

CAS	PERCENT
-	≥3 - ≤5

TRADE SECRET 3

CAS	PERCENT
-	≥3 - ≤5

3,6-DIAZAOCTANETHYLENEDIAMIN

CAS	PERCENT
112-24-3	≥1 - ≤3

**AF35LVE STRUCTURAL EPOXY**
PART B**19.2 CAS NUMBER/OTHER IDENTIFIERS (CONT'D)**

TRADE SECRET 5

CAS	PERCENT
-	≥1 - ≤3

TRADE SECRET 1

CAS	PERCENT
-	≥1 - ≤2

TRADE SECRET 8

CAS	PERCENT
-	≥1 - ≤3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 24.

SECTION 20: FIRST AID MEASURES**20.1 DESCRIPTION OF NECESSARY FIRST AID MEASURES**

- Eye Contact:** Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation:** Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**AF35LVE STRUCTURAL EPOXY**

PART B

20.1 DESCRIPTION OF NECESSARY FIRST AID MEASURES (CONT'D)

Skin Contact: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

20.2 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED**POTENTIAL ACUTE HEALTH EFFECTS**

Eye Contact: Causes serious eye damage.
Inhalation: May cause respiratory irritation.
Skin Contact: Causes severe burns. May cause an allergic skin reaction.
Ingestion: Harmful if swallowed.

OVER-EXPOSURE SIGNS/SYMPTOMS

Eye Contact: Adverse symptoms may include the following: pain, watering, redness.
Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations.
Skin Contact: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion: Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY

Notes to Physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific Treatments: No specific treatment.

Protection of First-Aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SEE TOXICOLOGY INFORMATION (SECTION 27)

**AF35LVE STRUCTURAL EPOXY**

PART B

SECTION 21: FIRE-FIGHTING MEASURES**21.1 EXTINGUISHING MEDIA**

Suitable Extinguishing Media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable Extinguishing Media: None known.

Specific Hazards Arising from the Chemical: This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous Thermal Decomposition Products: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, phosphorus oxides.

Special protective Actions for Fire-Fighters: No special measures are required.

Special Protective Equipment for Fire-Fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 22: ACCIDENTAL RELEASE MEASURES**22.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

For Non-Emergency Personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For Emergency Responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 24 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

22.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 17 for emergency contact information and Section 29 for waste disposal.

**AF35LVE STRUCTURAL EPOXY**

PART B

SECTION 23: HANDLING AND STORAGE**23.1 PRECAUTIONS FOR SAFE HANDLING**

Protective Measures: Put on appropriate personal protective equipment (see Section 24). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on General Occupational Hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 24 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for Safe Storage, Including Any Incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 26) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 24: EXPOSURE CONTROLS/PERSONAL PROTECTION**24.1 CONTROL PARAMETERS****OCCUPATIONAL EXPOSURE LIMITS**

INGREDIENT NAME	EXPOSURE LIMITS
Fatty Acids, Tall-oil, Reaction Products With Tetraethylenepentamine	None
4-Nonylphenol, Branched	None
2-Piperazin-1-Ylethylamine	None
Benzyl alcohol	AIHA WEEL (United States, 10/2011). TWA: 10 ppm 8 hours.
3-Aminomethyl-3,5,5-Trimethylcyclohexylamine	None
Trade Secret 4	None
Trade Secret 3	AIHA WEEL (United States, 10/2011). Absorbed through skin. Skin sensitizer. TWA: 5 mg/m ³ 8 hours.
3,6-Diazaoctanethylenediamin	AIHA WEEL (United States, 10/2011). Absorbed through skin. TWA: 1 ppm 8 hours.
Trade Secret 5	None
Trade Secret 1	None
Trade Secret 8	None

**AF35LVE STRUCTURAL EPOXY**

PART B

24.1 CONTROL PARAMETERS (CONT'D)

Appropriate Engineering Controls:	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Environmental Exposure Controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

24.2 INDIVIDUAL PROTECTION MEASURES

Hygiene Measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/Face Protection:	Safety eye-wear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

24.3 SKIN PROTECTION

Hand Protection:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body Protection:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other Skin Protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory Protection:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.



AF35LVE STRUCTURAL EPOXY

PART B

SECTION 25: PHYSICAL AND CHEMICAL APPEARANCE

25.1 APPEARANCE

Physical State:	Liquid	Lower and Upper Explosive (Flammable) Limits:	Not Applicable.
Color:	Straw to light amber. Blue. Purple.	Vapor Pressure:	Not Available.
Odor:	Ammonia fishy.	Vapor Density:	Not Available.
Density:	7.9 lbs/gal	Specific Gravity:	0.948 to 0.965
Odor Threshold:	Not Available.	Solubility:	Not Available.
pH:	Not Applicable.	Partition Coefficient: Noctanol/Water	Not Available.
Melting Point:	Not Available.	Auto-Ignition Temperature:	Not Applicable.
Boiling Point:	Not Available.	Decomposition Temperature:	Not Available.
Flash Point:	Not Applicable.	Volatile Organic Compounds:	0 g/L (tested per EPA CFR 40, Part 63, Subpart PPPP, Appendix A) 21 g/L (tested per EPA CFR 40, Part 60, Method 24)
Evaporation Rate:	Not Available.	Viscosity:	Kinematic (room temperature): 1.3 to 2 cm ² /s (130 to 200 cPs)
Flammability (solid, gas):	Not Applicable.		

SECTION 26: STABILITY AND REACTIVITY

26.1 STABILITY AND REACTIVITY

Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Chemical Stability:	The product is stable.
Possibility of Hazardous Reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to Avoid:	No specific data.
Incompatible Materials:	Not available.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 27: TOXICOLOGICAL INFORMATION

27.1 INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY

4-NONYLPHENOL, BRANCHED

ORAL	RAT	LD50	1300	mg/kg
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**AF35LVE STRUCTURAL EPOXY**
PART B**27.1 INFORMATION ON TOXICOLOGICAL EFFECTS (CONT'D)****ACUTE TOXICITY****BENZYL ALCOHOL**

DERMAL	RABBIT	LD50	2000	mg/kg
ORAL	RAT	LD50	1230	mg/kg

TRADE SECRET 3

ORAL	RAT	LD50	3990	mg/kg
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3,6-DIAZAOCTANETHYLENEDIAMIN

DERMAL	RABBIT	LD50	805	mg/kg
ORAL	RAT	LD50	2500	mg/kg

TRADE SECRET 1

DERMAL	RABBIT	LD50	2250	mg/kg
ORAL	RAT	LD50	3	g/kg

IRRITATION/CORROSION

INGREDIENT NAME	RESULT	SPECIES	SCORE	EXPOSURE	OBSERVATION
4-Nonylphenol, Branched	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-
2-Piperazin-1-Ylethylamine	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 mg	-
Benzyl alcohol	Skin - Mild irritant	Man	-	48 hours 16 mg	-
	Skin - Moderate irritant	Pig	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 mg	-
Trade Secret 3	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	5 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Severe irritant	Rabbit	-	495 mg	-
3,6-Diazaoctanethylenediamin	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	49 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Severe irritant	Rabbit	-	490 mg	-
Trade Secret 1	Eyes - Severe irritant	Rabbit	-	50 mg	-
	Skin - Mild irritant	Rabbit	-	445 mg	-

**AF35LVE STRUCTURAL EPOXY**
PART B**27.1 INFORMATION ON TOXICOLOGICAL EFFECTS (CONT'D)**

Sensitization: There is no data available.
Mutagenicity: There is no data available.
Carcinogenicity: There is no data available.
Reproductive Toxicity: There is no data available.
Teratogenicity: There is no data available.

Specific Target Organ Toxicity (Single Exposure):

NAME	CATEGORY	ROUTE OF EXPOSURE	TARGET ORGANS
Fatty Acids, Tall-oil, Reaction Products With Tetraethylenepentamine	Category 3	Not applicable	Respiratory tract irritation
Trade Secret 1	Category 3	Not applicable	Respiratory tract irritation

**Specific Target Organ
Toxicity (Repeated Exposure):** There is no data available.

Aspiration Hazard:

NAME	RESULT
Trade Secret 4	ASPIRATION HAZARD - Category 1

**Information on the Likely
Routes of Exposure:** Dermal contact. Eye contact. Inhalation. Ingestion.

27.2 POTENTIAL ACUTE HEALTH EFFECTS

Eye Contact: Causes serious eye damage.
Inhalation: May cause respiratory irritation.
Skin Contact: Causes severe burns. May cause an allergic skin reaction.
Ingestion: Harmful if swallowed.

27.3 SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

Eye Contact: Adverse symptoms may include the following: pain, watering, redness.
Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin Contact: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion: Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations



AF35LVE STRUCTURAL EPOXY

PART B

27.4 DELAYED AND IMMEDIATE EFFECTS/CHRONIC EFFECTS FROM SHORT & LONG TERM EXPOSURE

SHORT TERM EXPOSURE

Potential Immediate Effects: No known significant effects or critical hazards.

Potential Delayed Effects: No known significant effects or critical hazards.

LONG TERM EXPOSURE

Potential Immediate Effects: No known significant effects or critical hazards.

Potential Delayed Effects: No known significant effects or critical hazards.

POTENTIAL CHRONIC HEALTH EFFECTS

General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: May damage the unborn child.

Developmental Effects: No known significant effects or critical hazards.

Fertility Effects: May damage fertility.

27.5 NUMERICAL MEASURES OF TOXICITY

ACUTE TOXICITY ESTIMATES

ROUTE	ATE VALUE
Oral	1054.2 mg/kg
Dermal	3030.3 mg/kg
Inhalation (vapors)	128.5 mg/L

SECTION 28: ECOLOGICAL INFORMATION

28.1 ECOLOGICAL INFORMATION

TOXICITY

INGREDIENT NAME	RESULT	SPECIES	EXPOSURE
4-Nonylphenol, Branched	Acute EC50 0.03 mg/L Marine water	Algae - Skeletonema costatum	72 hours
	Acute EC50 0.027 mg/L Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 137 µg/L Marine water	Crustaceans - Eohaustorius estuarius - Adult	48 hours
	Acute LC50 17 µg/L Marine water	Fish - Pleuronectes americanus - Larvae	96 hours
	Chronic EC10 0.012 mg/L Marine water	Algae - Skeletonema costatum	96 hours
	Chronic NOEC 5 µg/L Fresh water	Crustaceans - Gammarus fossarum - Adult	21 days
	Chronic NOEC 7.4 µg/L Fresh water	Fish - Pimephales promelas - Embryo	33 days

Continued on Pg 27



AF35LVE STRUCTURAL EPOXY

PART B

28.1 ECOLOGICAL INFORMATION (CONT'D)

TOXICITY

INGREDIENT NAME	RESULT	SPECIES	EXPOSURE
2-Piperazin-1-Ylethylamine	Acute LC50 2190000 µg/L Fresh water	Fish - Pimephales promelas	96 hours
Benzyl alcohol	Acute LC50 460000 µg/L Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
3-Aminomethyl-3,5,5-Trimethylcyclohexylamine	Acute EC50 17.4 mg/L Fresh water	Daphnia - Daphnia magna	48 hours
3,6-Diazaoctanethylenediamin	Acute EC50 3700 µg/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute LC50 33900 µg/L Fresh water	Daphnia - Daphnia magna	48 hours

PERSISTENCE AND DEGRADABILITY

There is no data available.

BIOACCUMULATIVE POTENTIAL

INGREDIENT NAME	LogPow	BCF	POTENTIAL
4-Nonylphenol, Branched	5.4	740	high
2-Piperazin-1-Ylethylamine	-1.48	-	low
Benzyl alcohol	0.87	-	low
3-Aminomethyl-3,5,5-Trimethylcyclohexylamine	0.99	-	low
Trade Secret 4	1.34	-	low
3,6-Diazaoctanethylenediamin	-1.66 to -1.4	-	low
Trade Secret 1	-1.46	<0.2	low

MOBILITY IN SOIL

Soil/water Partition
Coefficient (KOC):

Not available.

Other Adverse Effects:

No known significant effects or critical hazards.

SECTION 29: DISPOSAL CONSIDERATIONS

29.1 DISPOSAL CONSIDERATIONS

Disposal Methods:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.



AF35LVE STRUCTURAL EPOXY

PART B

SECTION 30: TRANSPORT INFORMATION

30.1 TRANSPORT INFORMATION

	DOT CLASSIFICATION	IMDG	IATA
UN number	UN2735	UN2735	UN2735
UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (4-Nonylphenol, Branched, Trade Secret 3)	AMINES, LIQUID, CORROSIVE, N.O.S. (4-Nonylphenol, Branched, Trade Secret 3)	AMINES, LIQUID, CORROSIVE, N.O.S. (4-Nonylphenol, Branched, Trade Secret 3)
Transport hazard class(es)	8 	8  8 	8 
Packing group	III	III	III
Environmental hazards	No	Yes	No
Additional information	<u>Remarks</u> Limited Quantity Exemption For corrosive materials in Packing Group III, inner packaging's not over 5.0 L (1.3 gallons) net capacity each for liquids or not over 5.0 kg (11 lbs) net capacity each for solids, packed in a strong outer packaging.	<u>Remarks</u> The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <u>Remarks</u> Limited Quantity Exemption For corrosive materials in Packing Group III, inner packaging's not over 5.0 L (1.3 gallons) net capacity each for liquids or not over 5.0 kg (11 lbs) net capacity each for solids, packed in a strong outer packaging.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special Precautions for User: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in Bulk According to Annex II of MARPOL and the IBC Code: Not available.

SECTION 31: REGULATORY INFORMATION

31.1 REGULATORY INFORMATION

U.S. Federal Regulations: TSCA 5(a)2 final significant new use rules: Trade Secret 8
TSCA 8(a) PAIR: 4-Nonylphenol, Branched
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
TSCA 12(b) one-time export: 4-Nonylphenol, Branched; Trade Secret 8
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: Trade Secret 7



AF35LVE STRUCTURAL EPOXY

PART B

31.1 REGULATORY INFORMATION (CONT'D)

Clean Air Act Section
112(b) Hazardous Air
Pollutants (HAPs): Not listed

Clean Air Act Section
602 Class I Substances: Not listed

Clean Air Act Section
602 Class II Substances: Not listed

DEA List I Chemicals
(Precursor Chemicals): Not listed

DEA List II Chemicals
(Essential Chemicals): Not listed

31.2 SARA 302/304

Composition/Information
on Ingredients: No products were found.

31.4 304 RQ

Not applicable.

31.3 SARA 311/312

Classification: Immediate (acute) health hazard
Delayed (chronic) health hazard

COMPOSITION/INFORMATION ON INGREDIENTS

NAME	%	FIRE HAZARD	SUDDEN RELEASE OF PRESSURE	REACTIVE	IMMEDIATE (ACUTE) HEALTH HAZARD	DELAYED (CHRONIC) HEALTH HAZARD
Fatty Acids, Tall-oil, Reaction Products With Tetraethylenepentamine	≥10 - ≤25	No	No	No	Yes	No
4-Nonylphenol, Branched	≥10 - ≤25	No	No	No	Yes	Yes
2-Piperazin-1-Ylethylamine	≥10 - ≤25	No	No	No	Yes	No
Benzyl alcohol	≥5 - ≤10	No	No	No	Yes	No
3-Aminomethyl-3,5, 5-Trimethylcyclohexylamine	≥5 - ≤10	No	No	No	Yes	No
Trade Secret 4	≥3 - ≤5	No	No	No	Yes	No
Trade Secret 3	≥3 - ≤5	No	No	No	Yes	No
3,6-Diazaoctanethylenediamin	≥1 - ≤3	No	No	No	Yes	No
Trade Secret 5	≥1 - ≤3	No	No	No	Yes	No
Trade Secret 1	≥1 - ≤2	No	No	No	Yes	Yes
Trade Secret 8	≥1 - ≤3	No	No	No	Yes	No

**AF35LVE STRUCTURAL EPOXY**
PART B**31.5 SARA 313**

	PRODUCT NAME	CAS NUMBER	%
Form R - Reporting Requirements	4-Nonylphenol, Branched	84852-15-3	≥10 - ≤25
Supplier notification	4-Nonylphenol, Branched	84852-15-3	≥10 - ≤25

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

31.6 STATE REGULATIONS

Massachusetts:	The following components are listed: 2-Piperazin-1-Ylethylamine; Benzyl alcohol; 3, 6-Diazaoctanethylenediamin; Trade Secret 3; Trade Secret 1
New York:	None of the components are listed.
New Jersey:	The following components are listed: 2-Piperazin-1-Ylethylamine; Trade Secret 5; 3-Aminomethyl-3,5,5-Trimethylcyclohexylamine; 3,6-Diazaoctanethylenediamin; Trade Secret 3; Trade Secret 1
Pennsylvania:	The following components are listed: 2-Piperazin-1-Ylethylamine; Benzyl alcohol; 3, 6-Diazaoctanethylenediamin; Trade Secret 3; Trade Secret 1

CALIFORNIA PROP. 65

No products were found.

SECTION 32: OTHER INFORMATION**32.1 PROCEDURE USED TO DERIVE THE CLASSIFICATION**

CLASSIFICATION	JUSTIFICATION
ACUTE TOXICITY (oral) - Category 4	Calculation method
SKIN CORROSION - Category 1B	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method
TOXIC TO REPRODUCTION (Fertility) - Category 1B	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
AQUATIC HAZARD (ACUTE) - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 1	Calculation method

**AF35LVE STRUCTURAL EPOXY**
PART B**32.2 HISTORY**

Date of issue mm/dd/yyyy: 09/15/2016 (Date of previous issue: 03/15/2016)
Version: 1.1
Prepared By: KMK Regulatory Services Inc.

32.3 DISCLAIMER**NOTICE TO READER**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.