

EndurmoPoxy Epoxy Flooring System, Part A

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name: EndurmoPoxy Flooring System, Part A
Product code: EndurmoPoxy Epoxy Flooring System, Part A
Synonym(s): Epoxy resin/bio-based plasticizer blend

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

General use: Epoxy coatings
Uses advised against: None known

1.3 Details of the supplier and of the safety data sheet

Manufacturer/Distributor
Endurmo
12110 Ellington Court
Cincinnati, OH 45249 USA
1 (331) 214-1655

1.4 Emergency telephone number

CHEMTREC: +1-800-424-9300 - 24 HR EMERGENCY

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation EC No.
1272/2008 Skin Irritation - Category 2 [H315]
Sensitizer, Skin - Category 1 [H317]
Eye Irritation - Category 2A [H319]
Aquatic Toxicity, Chronic - Category 2 [H411]

2.2 Label elements

Hazard symbol(s)



GHS07



GHS09

Signal word: Warning

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

Precautionary statements:

[Prevention]

P261 - Avoid breathing mist, fumes and vapor.
P264 - Wash hands and other exposed skin areas thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.

[Response]

P280 - Wear protective gloves, protective clothing and eye protection.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P321 - Specific treatment: Call a POISON CENTER or doctor if you feel unwell. Refer to Section 4 of this SDS.
P333 + P337 + P313 - If skin irritation or rash occurs or eye irritation persists: Get medical attention.
P362 - Take off contaminated clothing and wash before reuse.
P391 - Collect spillage.

[Disposal] P501 - Dispose of contents and containers in accordance with national and local regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None known

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
60 - 85	Bisphenol A/epichlorohydrin epoxy resin	Proprietary	-----	-----	H315, H317, H319, H411

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with the applicable provisions of paragraph (i).

There are no additional ingredients present in this product 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

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product mist or vapor causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist or if the victim feels unwell, seek medical attention.

Eyes: Immediately flush eyes with large amounts of water or saline solution for at least 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after first 2 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing. Wash the affected area with soap and water followed by thorough rinsing. Wash contaminated clothing and shoes before reuse. Discard items that cannot be decontaminated, including leather articles such as shoes, belts and watchbands. If irritation persists or rash develops, seek medical attention.

Ingestion: Rinse mouth with water if the victim is conscious. Remove dentures if present. Give 1 - 2 cupfuls of water to drink if the victim is conscious, alert and able to swallow. Vomiting may occur spontaneously. To prevent aspiration of material into the lungs, lay the victim on one side with the head lower than the waist. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Seek immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Causes serious eye irritation. Symptoms may include redness, swelling, pain and tearing. Vapor or fumes can cause eye irritation.

Skin: Causes skin irritation. Prolonged contact with unprotected skin can cause localized redness, itching, blisters, chemical burns and discomfort. May cause an allergic skin reaction with subsequent sensitization. Persons previously sensitized can experience allergic skin reactions with symptoms of redness, itching, swelling and rash upon re-exposure to material.

Inhalation: Not expected to be an inhalation hazard due to the low volatility of this material. May cause respiratory irritation when heated. Symptoms may include runny nose, cough, sore throat, sneezing, wheezing and shortness of breath.

Ingestion: Causes irritation of the gastrointestinal tract with nausea, vomiting, abdominal pain and diarrhea. Aspiration of material during swallowing or vomiting causing lung inflammation and chemical pneumonitis, which may be fatal. Symptoms of aspiration into the lungs include coughing, gasping, choking, shortness of breath, bluish colored skin, rapid breathing and rapid heart rate

Chronic: Persons with pre-existing eye, skin and chronic respiratory disorders may be more susceptible to the effects of this material. May cause skin sensitization with subsequent contact dermatitis upon re-exposure to this material.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to doctor and hospital personnel

Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable methods of extinction: Use extinguishing media such as water fog or spray, carbon dioxide, alcohol resistant foam or dry chemical.

Unsuitable methods of extinction: Water jets or streams may spread the fire.

5.2 Special hazards arising from the substance or mixture

Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: This product is not considered to be an explosion hazard. Avoid high temperatures and hot surfaces.

5.3 Advice to firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. Firefighters should control runoff water to prevent environmental contamination.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Wear appropriate protective clothing and equipment designated in Section 8.2, including respiratory protection. Ventilate the area. Remove all sources of ignition. NO SMOKING. Clean up spills immediately. Spill creates a slip hazard.

6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements.

6.3 Methods and materials for containment and cleaning up

DO NOT FLUSH SPILL DOWN THE DRAIN. Approach spill from upwind direction. Cover drains and contain spill. Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect material and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Do not allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches that lead to waterways. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

See Section 13 for additional waste treatment information.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8.2. Do not get in eyes or on skin or clothing. Do not inhale mist or vapor. NO SMOKING. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing and shoes thoroughly before reuse. Discard items that cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

Advice on protection against fire and explosion

Keep away from heat, hot surfaces and incompatible materials.

7.2 Conditions for safe storage, including any incompatibilities

Store in dry, cool, well-ventilated areas away from incompatible materials (see Section 10.5), food and drink. Store between 10 - 35 °C (50 - 95 °F). Prolonged storage of material or cold temperatures may result in reversible crystallization. Crystallized material can be liquified by heating slowly to 50 °C (122 °F) for 6 - 24 hours.

Transfer only to approved containers having correct labeling. Keep container tightly closed when not in use. Protect containers from physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Containers are hazardous when empty as they contain product residue. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Keep out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection: Wear chemical goggles or safety glasses with unperforated side shields during use.

Hand protection: Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Skin protection: Wear protective clothing. Wear protective boots if the situation requires.

Respiratory protection: Always use an approved respirator when vapor/aerosols exceed permissible exposure limits. Where risk assessment shows air-purifying respirators are appropriate use a half-mask respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow OSHA

respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls: Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.



SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear, yellow liquid
Odor	Mild, characteristic
Odor Threshold	No data available
Molecular Weight	Not applicable
Chemical Formula	Not applicable
pH	No data available
Melting Point	Not applicable
Initial Boiling Point	> 216 °C (> 419 °F)
Evaporation Rate	<1 [n-BuOAc = 1]
Flammability (solid, gas)	Not applicable
Flash Point	> 130 °C (> 266 °F) [estimated]
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Lower Explosive Limit (LEL)	No data available
Upper Explosive Limit (UEL)	No data available
Vapor Pressure	No data available
Vapor Density	>1 [Air = 1]
Specific Gravity	1.0018 - 1.1118 [calculated]
Viscosity	No data available
Solubility in Water	Negligible
Partition Coefficient (n-octanol/water)	No data available
Oxidizing Properties	Not applicable
Explosive Properties	Not applicable
Volatiles by Weight @ 21 °C	No data available

9.2 Other Data

None known

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

No special reactivity has been reported during normal conditions of handling and use.

10.2 Chemical Stability

This material is stable under recommended conditions of storage and handling. Prolonged storage of material may result in reversible crystallization. Crystallized material can be liquified by heating slowly to 50 °C (122 °F) for 6 - 24 hours.

10.3 Possibility of hazardous reactions

Reacts exothermically with amines, generating considerable heat buildup.

10.4 Conditions to avoid

Avoid high temperatures, hot surfaces and contact with incompatible materials. Avoid short term exposures to temperatures > 300 °C (> 572 °F) and prolonged exposure to temperatures > 250 °C (> 482 °F). Potentially violent decomposition can occur above 350 °C (662 °F).

10.5 Incompatible materials

Strong oxidizing agents, strong bases, strong acids, amines, mercaptans

10.6 Hazardous decomposition products

Thermal decomposition products may include oxides of carbon, phenolics, aldehydes, smoke, toxic fumes and gases.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity

LD₅₀, rat: > 5,000 mg/kg [calculated]

Acute inhalation toxicity

No data available

Acute dermal toxicity

LD₅₀, rabbit: > 5,000 mg/kg [calculated]

Skin irritation

Causes skin irritation.

Eye irritation

Causes severe eye irritation.

Sensitization

May cause an allergic skin reaction.

Genotoxicity in vitro

No data available

Mutagenicity

No data available

Specific organ toxicity - single exposure

No data available

Specific organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Further information

This product contains no substances present at levels greater than or equal to the 0.1% threshold (de minimis) that are identified as a probable, possible, potential or confirmed carcinogens by ACGIH, IARC, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this product, nor is there any available data that indicates it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

This material is toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

This material cannot be considered readily biodegradable.

12.3 Bioaccumulation potential

The bioaccumulation potential for this material is moderate.

12.4 Mobility in soil

The potential for mobility in soil is low.

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other effects

Additional ecological information

Do not allow material to enter surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products in accordance with national, state and local regulations. Disposal of this product should always comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA F-Series: No listings above the reportable threshold (de minimis)

RCRA U-Series: No listings above the reportable threshold (de minimis)

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

Limited quantity for miscellaneous materials in Packing Group III when inner packagings are not over 5.0 liters (1.3 gallons) net capacity each, packed in a strong outer packaging.

USA DOT (Ground Transportation)

NOT REGULATED FOR TRANSPORT

Drum Label(s)

IMO/IMDG (Water Transportation)

Proper Shipping Name

Environmentally hazardous substance, liquids, n.o.s. (Epoxy resins)

Hazard Class

9

UN/NA

UN3082

Packing Group

III

Marine Pollutant

Yes

EMS Number

F-A, S-F

ICAO/IATA (Air Transportation)

Proper Shipping Name

Environmentally hazardous substance, liquids, n.o.s. (Epoxy resins)

Hazard Class

9

UN/NA

UN3082

Packing Group

III

Quantity Limitations

49 CFR 175.27 and 175.75 - Cargo Aircraft Only: No limit; Passenger Aircraft: No limit

RID/ADR (Rail Transportation) NOT REGULATED FOR TRANSPORT

SECTION 15 - REGULATORY INFORMATION

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

U. S. Federal Regulations

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910-1200. **OSHA**

Process Safety Management Standard: This product is not regulated under OSHA PSM Standard 29 CFR 1910.119. **EPA Risk Management Planning Standard:** This product is not regulated under EPA RMP Standard (RMP) 40 CFR Part 68. **EPA Federal Insecticide, Fungicide and**

Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150. **Toxic Substance Control Act (TSCA)**

Inventory: All substances in this product are listed on the TSCA Inventory. This product is not subject to TSCA 12(b) Export Notification.

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b)) and 1310.4(f)(2)) and Chemical Code Number No listings

Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number: No listings **Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals:** No listings

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories:

Causes skin irritation May cause an allergic skin reaction Causes serious eye irritation

SARA 313 Information: None of the chemicals in this product exceed the threshold (de minimis) reporting levels established by Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA 302/304 Extremely Hazardous Substances: None of the chemicals in this product exceed the threshold (de minimis) reporting levels established by these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification: None of the chemicals in this product exceed the threshold (de minimis) reporting levels established by these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains no CERCLA reportable substances.

Clean Air Act (CAA)

This product does not contain Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain Class 1 ozone depleters.

This product does not contain Class 2 ozone depleters.

Clean Water Act (CWA)


This product does not contain Hazardous Substances listed under the CWA.

This product does not contain Priority Pollutants.

This product does not contain Toxic Pollutants.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

 **WARNING:** This product can expose you to Epichlorohydrin (<10 ppm), which is known to the state of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Other U.S. State Inventories

None of the components in this product exceed the reporting threshold (de minimis) listed on any State Hazardous Substance Inventories, Right to-Know lists and/or Air Quality/Air Pollutants lists.

Canada

WHMIS Hazard Classification

May cause an allergic skin reaction

Canadian National Pollutant Release Inventory (NPRI): This product contains no chemicals above the reporting threshold (de minimis) listed

on the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): 2 (hazardous to waters)

Global Chemical Inventory Lists

Country	Inventory Name	Listed
Canada	Domestic Substance List (DSL)	Yes
Canada	Non-Domestic Substance List (NDSL)	No
Europe	Inventory of New and Existing Chemicals (EINECS)	Yes
United States	Toxic Substance Control Act (TSCA)	Yes
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (KECI)	Yes
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*Yes - All components of this product comply with the inventory requirements administered by the governing country.

No - One or more components of this product are not on the inventory or are exempt from listing.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

HEALTH	* 2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	C

C = safety goggles, gloves & apron

HMIS Hazard Rating Legend

0 = Minimal 1 = Slight 2 = Moderate

3 = Serious 4 = Severe

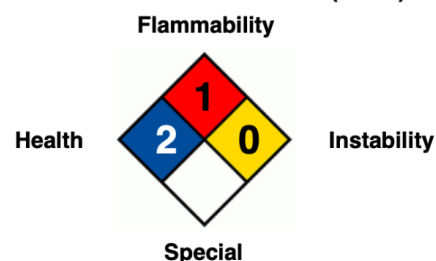
* = Chronic Health Hazard

NFPA Hazard Rating Legend

0 = Insignificant 1 = Slight 2 = Moderate

3 = High 4 = Extreme

National Fire Protection Association (NFPA)



Abbreviation Key

ACGIH	American Conference of Governmental Industrial Hygienists	LD ₅₀	Lowest Lethal Dose
ADR	Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)	mppcf	Millions of Particles Per Cubic Foot
CAS	Chemical Abstract Services	NA	North America
CFR	Code of Federal Regulations	NAERG	North American Emergency Response Guide Book
COC	Cleveland Open Cup	NIOSH	National Institute for Occupational Safety & Health
DOT	Department of Transportation	NTP	National Toxicology Program
EC ₅₀	Half maximal effective concentration	OSHA	Occupational Safety and Health Administration
EMS	Emergency Response Procedures for Ships Carrying	PBT	Persistent, Bioaccumulating and Toxic
EPA	Environmental Protection Agency	PEL	Permissible exposure limit
ErC ₅₀	Reduction of Growth Rate	PMCC	Pensky-Martens Closed Cup
ERG	Emergency Response Guide Book	ppm	Parts Per Million
FDA	Food and Drug Administration	RCRA	Resource Conservation and Recovery Act
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)	RID	Dangerous Goods by Rail
HCS	Hazard Communication Standard	RQ	Reportable Quantity
IARC	International Agency for Research on Cancer	TCC/Tag	Tagliabue Closed Cup

DISCLAIMER OF RESPONSIBILITY

The information herein is given in good faith and is believed to be accurate and correct; however, no warranty, expressed or implied, is made. RAM Epoxy Technologies Inc. assumes no responsibility for personal injury or property damage that may arise from the use of this material since the conditions of handling and use are beyond our control. It is the responsibility of the user to determine the suitability of this information for the adoption of the safety precautions as may be necessary. It is the responsibility of the user to comply with all Federal, State and local laws and regulations regarding use of this product. Vendees or users assume all risks associated with the use of this material. We reserve the right to revise Safety Data Sheets from time to time as new technical information becomes available. The user has the responsibility to contact the company to make sure that the Safety Data Sheet is the latest issue.

Revision date: 24 January 2020, Version 3

Supersedes SDS: 09 August 2014, Version 2

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