

Page 1 of 11 SDS: 0017094 Date Prepared: 25-Dec-2016

SAFETY DATA SHEET

Safety Data Sheet according to regulation (EC) No 1907/2006 & 1272/2008 and amendments

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER BECKOPOX[™] EP 386w/52WA Liquid Coating Resin

Product Description: Epoxy resin water soluble

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Intended/Recommended Use: Binder

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: Allnex Belgium SA/NV, Square Marie Curie 11, 1070 Brussels, BE. **For Product and all Non-Emergency Information call** your local Allnex contact point or contact us at http://www.allnex.com/contact

Local Contact Information: Allnex Belgium SA/NV, Anderlechtstraat, 33, 1620 Drogenbos, BE Telephone no.: +32 (0) 2-3345111

1.4 EMERGENCY TELEPHONE NUMBER (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:

Asia Pacific:

Australia: +61 2801 44558 (Carechem 24) China (PRC): +86(0)532-8388-9090 (NRCC) Japan: +81 345 789 341 (Carechem 24) New Zealand: +64 9929 1483 (Carechem 24) India: 000 800 100 7479 (toll free) or +65 3158 1198 (Carechem 24) Korea: +82 2 3479 8401 (Carechem 24) Malaysia: +60 3 6207 4347 (Carechem 24) Philippines: +63 2 231 2149 (Carechem 24) All Others: +65 3158 1074 (Carechem 24) Europe/Africa/Middle East (Carechem 24): Europe, Middle East, Africa, Israel: +44 (0) 1235 239 670 Middle East, Africa (Arabic speaking countries): +44 (0) 1235 239 671 Latin America: Brazil: +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24) Chile: +56 2 2582 9336 (Carechem 24) Mexico and all others: +52-555-004-8763 (Carechem 24) Canada and USA (Carechem 24 - Allnex29003-NCEC): +1-866-928-0789 (toll free) or +1-215-207-0061

Trademarks indicated with the ® or ™ are registered, unregistered or pending trademarks of Allnex IP S.à.r.I. or its directly or indirectly affiliated Allnex Group companies.

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification according to Regulation (EC) No 1272/2008 and amendments Not Classified

2.2 LABEL ELEMENTS

Hazard Statements

EUH205 - Contains epoxy constituents. May produce an allergic reaction.

Precautionary Statements

Precautionary statements on the label will be reduced as indicated in Regulation (EC) No 1272/2008, Article 28.

Not applicable

2.3 OTHER HAZARDS

Not applicable

RESULTS OF PBT AND vPvB ASSESSMENT

Not determined

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance, Mixture or Article? Mixture

3.2 MIXTURES

Component / CAS No.	%	EC-No	REACH Registration Number		Classification according to Regulation (EC) No 1272/2008 (CLP)	
2-Propoxyethanol 2807-30-9	4 - 6	220-548-6	01-2119883539-19	-	Flam. Liq. 3 (H226) Acute Tox. 4 (H312) Eye Irrit. 2 (H319)	-

See Section 16 for full text of H phrases.

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes. Hold eyelid(s) open during rinsing. Obtain medical advice if there are persistent symptoms.

Skin Contact:

Remove contaminated clothing and shoes without delay. Wash immediately with plenty of water. Do not reuse contaminated clothing without laundering. Get medical attention if pain or irritation persists after washing or if signs and symptoms of overexposure appear.

Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

None known

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDS

Not applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable Extinguishing Media:

Use water spray or fog, carbon dioxide or dry chemical.

Unsuitable Extinguishing Media:

full water jet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Keep containers cool by spraying with water if exposed to fire.

5.3 ADVICE FOR FIREFIGHTERS

Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

6.2 ENVIRONMENTAL PRECAUTIONS

None known

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

6.4 REFERENCES TO OTHER SECTIONS

See Sections 8 and 13 for additional information.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Precautions: Wash hands thoroughly after handling.

Special Handling Statements: Provide good ventilation of working area (local exhaust ventilation if necessary). During processing and handling of the product, comply with the indicative occupational exposure limit values.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in a cool, dry, well ventilated place and keep container tightly closed. Keep away from sources of ignition - refrain from smoking. Take precautionary measures against electrostatic loading - earthing necessary during loading operations. Observe the general rules of industrial fire protection. Sensitive to frost.

Storage Temperature: Store at 5 - 25 °C **Reason:** Quality.

Storage Class (TRGS 510): 10

7.3 SPECIFIC END USE(S) Refer to Section 1 or Exposure Scenario if applicable.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

No OEL values have been established.

Biological Exposure Limit(s)

No values have been established.

Derived No Effect Level (DNEL):

2-Propoxyetnanoi (2807-30-9)					
Route	DNEL	Units	Effects Type		
Dermal	3.4	mg/kg/day	Long term, systemic		
Inhalation	36	mg/m³	Long term, systemic		
Dermal	2.2	mg/kg/day	Long term, systemic		
Inhalation	7.7	mg/m ³	Long term, systemic		
Oral	2.2	mg/kg/day	Long term, systemic		
	Route Dermal Inhalation Dermal Inhalation	RouteDNELDermal3.4Inhalation36Dermal2.2Inhalation7.7	RouteDNELUnitsDermal3.4mg/kg/dayInhalation36mg/m³Dermal2.2mg/kg/dayInhalation7.7mg/m³		

Predicted No Effect Concentration (PNEC): 2-Proposyethanol (2807-30-9)

Compartment	PNEC	Units
Fresh water	0.1	mg/L
Marine water	0.01	mg/L
Intermittent water release	1	mg/L
Sewage treatment plant	10	mg/L
Sediment (fresh water)	0.594	mg/kg
Sediment (marine water)	0.0594	mg/kg

Soil

0.0602

mg/kg

8.2 EXPOSURE CONTROLS

Engineering Measures:

Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

Respiratory Protection:

For operations where inhalation exposure can occur use an approved respirator. Recommendations are listed below. Other protective respiratory equipment may be used based on user's own risk assessment.

Recommended:

Full Face Mask with organic vapor cartridge, Type A filter (BP >65°C)

Eye protection:

Wear eye/face protection such as chemical splash proof goggles or face shield.

Skin Protection:

Avoid skin contact.

Wear impermeable gloves and suitable protective clothing.

Hand protection:

Wear protective gloves. Recommendations are listed below. Other protective materials may be used based on user's own risk assessment. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility etc.) is noticed.

<u>Gloves for repeated or prolonged exposure - non exhaustive list:</u> Nitrile rubber (NBR), thickness: > 0.38 mm, break through time: > 480 min

<u>Gloves for short term exposure/splash protection - non exhaustive list:</u> Nitrile rubber (NBR), thickness: > 0.38 mm, break through time: up to 480 min

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

Not suitable gloves - non exhaustive list: Nitrile rubber (NBR), thickness: 0.12 mm

Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing. Use PE gloves as under gloves for difficult situations like for instance: high exposure, unknown composition or unknown properties of the chemicals.

Additional Advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. It is recommended that a shower be taken after completion of workshift especially if significant contact has occurred. Work clothing should then be laundered prior to reuse. Street clothing should be stored separately from work clothing and protective equipment. Work clothing and shoes should not be taken home.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Colour:	white
Appearance:	liquid
Odor:	glycol ether
Odor Threshold:	See Section 8 for exposure limits.
pH:	Not available
Melting Point:	Not available
Boiling Point:	60 - 100 °C
Flash point:	> 100 °C DIN EN ISO 2719
Evaporation Rate:	Not available
Flammable Limits (% By Vol):	Not available
Vapor Pressure:	Not available
Vapour density:	Not available
Specific Gravity/Density:	~ 1.08 g/cm ³ @ 20°C DIN EN ISO 2811-2
Solubility In Water:	4.3 mg/L @ 20 °C Solubility in water on isolated polymer
Partition coefficient	3.8 OECD 117 Log Pow on isolated polymer
(n-octanol/water):	
Autoignition temperature:	Not available
Decomposition Temperature:	Not available
Viscosity (Kinematic):	Not available
Viscosity (Dynamic):	300 - 1500 mPa.s @ 23 °C DIN EN ISO 3219
• • • •	

9.2 OTHER INFORMATION

Fat Solubility (Solvent-Oil): Percent Volatile (% by wt.): Solids Content: Saturation In Air (% By Vol.): Acid Number (mg KOH/g): Hydroxyl Value (mg KOH/g): Volatile Organic Content (1999/13/EC): Not available 46 - 50 mostly water 50 - 54 % DIN 55671 Not available Not available ~ 5.5 %

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY	No information available

10.2 CHEMICAL STABILITY Stable

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Polymerization:	Will not occur
Conditions To Avoid:	None known
10.4 CONDITIONS TO AVOID	Avoid high temperatures.
10.5 INCOMPATIBLE MATERIALS	amines, Avoid contact with acids and alkali"s
10.6 HAZARDOUS	Carbon dioxide
DECOMPOSITION PRODUCTS	Carbon monoxide (CO)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Print Date: 25-Dec-2016

Likely Routes of Exposure: Skin, Eyes, Oral.

Acute toxicity - oral: Not classified - Based on available data and/or professional judgment, the classification criteria are not met.

Acute toxicity - dermal: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Acute toxicity - inhalation: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Skin corrosion / irritation: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Serious eye damage / eye irritation: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Respiratory sensitization: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Skin sensitization: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Carcinogenicity: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Germ cell mutagenicity: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Reproductive toxicity: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Specific target organ toxicity (STOT) - repeated exposure: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Aspiration hazard: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA oral dermal inhalation	rat rabbit rat	Acute LD50 14 day Acute LD50 Acute LC50 4 hr	> 2000 mg/kg No data No data
LOCAL EFFECTS ON SKIN AND EYE Acute Irritation Acute Irritation	dermal eye	rabbit rabbit	Not irritating Not irritating
ALLERGIC SENSITIZATION Sensitization	Skin	guinea pig	Not sensitizing By analogy with a product
Sensitization	respiratory	No data	of similar composition.
SUBACUTE/SUBCHRONIC TOXICITY Oral	rat	90-Day Repeated Dose Oral (Dietary) Toxicity in the Rat (OCED TG 408) 90 day	4000 mg/kg Actual NOEL By analogy with a product of similar composition.

Assays for Gene Mutations

No data

HAZARDOUS INGREDIENT TOXICITY DATA

2-Propoxyethanol may cause moderate eye irritation. Repeated exposure to the skin may cause allergic reactions. Repeated prolonged overexposure to 2-propoxyethanol vapor may cause blood disorders. The oral LD50 in rats is 3 g/kg and the dermal LD50 in guinea pigs is 1 g/kg. The inhalation LC50 of the vapor is >2000 ppm (8.5 mg/L) after a 4-hour exposure to rats. 2-Propoxyethanol has produced teratogenic effects in animals at maternally toxic doses.

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

This material is not classified as dangerous for the environment. This material is not readily biodegradable.

12.1 ECOTOXICITY

ALGAE TEST RESULTS

Test: Growth Inhibition (OECD 201)Duration: 72Species: Pseudokirchneriella subcapitata> 18.4 mg/lErC50

> 18.4 mg/l EbC50

Highest concentration tested based on TWA exposure concentrations Highest concentration tested based on TWA exposure concentrations

12.2 PERSISTENCE AND DEGRADABILITY

DEGRADATION

Test: Closed Bottle (OECD 301D)Duration: 28Procedure: Ready biodegradability0 %This material is not readily biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL Not available

12.4 MOBILITY IN SOIL

Not available

12.5 RESULTS OF PBT AND vPvB ASSESSMENT Not determined

12.6 OTHER ADVERSE EFFECTS

Not available

HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Algae	Toxicity to Fish	Toxicity to Water Flea
2-Propoxyethanol 2807-30-9	Not available	Not available	Not available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

The company encourages the recycle and reuse of products and packaging, where possible and permitted.

Product disposal

When recycle or reuse is not possible, the comany recommends that our products, especially when classified as hazardous, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed. For disposal within the European Community, waste codes according to Directive 2008/98/EC should be assigned by the user based on the application for which the product was used.

Packaging disposal

Handle contaminated packages in the same way as the product itself. Disposal of emptied and cleaned packaging must be made in accordance with applicable local and national regulations.

Disposal-relevant information

Do not release directly or indirectly to surface water, ground water, soil or public sewage system.

SECTION 14: TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

SUBSECTION 14.1 TO 14.5

ADR/RID/ADN Dangerous Goods?	Not applicable/Not regulated
IMO Dangerous Goods?	Not applicable/Not regulated
ICAO / IATA	

Dangerous Goods?

Not applicable/Not regulated

14.6 SPECIAL PRECAUTIONS FOR USER

Sensitive to frost, don't store over +25°C.

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE No information available

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Ozone Depleting Substances (Regulation (EC) No 1005/2009): Not applicable Persistent Organic Pollutants (Regulation (EC) No 850/2004): Not applicable Prior Informed Consent (Regulation (EC) No 689/2008): Not applicable Substances subject to Authorization (Annex XIV of Regulation (EC) No 1907/2006): Not applicable

Substances subject to Restrictions for certain applications(Annex XVII of Regulation(EC)No 1907/2006): Yes Refer to Annex XVII of REACH for details of the restricted applications.

2-Propoxyethanol (4 - 6 %)

This substance is a flammable restricted for aerosols under item 40.

Water Endangering Class (Germany): 1 according to VwVwS, 17.05.1999

Inventory Information

European Economic Area (including EU): When purchased from an Allnex legal entity based in the EEA (EU or Norway), this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, pre-registered and/or registered.

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

China: One or more components of this product are NOT included on the Chinese (IECSC) inventory. The company has obtained the required notification approvals from the Ministry of Environmental Protection (MEP) as per the "Environmental Administrative Measures for New Chemical Substance" for the component(s) not listed in the Chinese Inventory (IECSC). The product can be imported/manufactured in China ONLY under specific conditions.

Japan: All components of this product are included on the Japanese (ENCS and ISHL) inventories or are not required to be listed on the Japanese inventories.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

Philippines: One or more components of this product are NOT included on the Philippine (PICCS) inventory.

Taiwan: All components of this product are included in the Taiwan chemical substance inventory or are not required to be listed on the Taiwan chemical substance inventory (TCSI).

Switzerland: All components of this product are exempt from the new substance notification requirements for Switzerland (SR 813.11 art. 24-26).

15.2 CHEMICAL SAFETY ASSESSMENT

No Chemical Safety Assessment has been carried out.

SECTION 16: OTHER INFORMATION

Reasons for Issue:	New Logo
Date Prepared:	25-Dec-2016
Date of last significant revision:	25-Nov-2016

Classification methods include one or more of the following: use of specific product data, read-across data, modeling, professional judgment or a component based evaluation.

Component - Hazard Statements

2-Propoxyethanol

H226 - Flammable liquid and vapour.

H312 - Harmful in contact with skin.

H319 - Causes serious eye irritation.

Prepared By: Product Stewardship & Regulatory Affairs Department, http://www.allnex.com/contact

This information is given without any warranty or representation. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation, and verification. Before using any product, read its label.