

SAFETY DATA SHEET

Epoxy Universal 335

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

Epoxy Universal 335

Unique formula identifier (UFI)

Not applicable

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

Relevant identified uses of the substance or mixture

2-component epoxy

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

Dana Lim A/S

Københavnsvej 220

DK-4600 Køge

Denmark

Tel: +45 56 64 00 70

Fax: +45 56 64 00 90

Contact person

Product Safety Department

E-mail

info@danalim.dk

SDS date

2021-01-08

SDS Version

1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Irrit. 2; H315, Causes skin irritation.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Dam. 1; H318, Causes serious eye damage.

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

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes serious eye damage.
- Toxic to aquatic life with long lasting effects.

Safety statement(s)

General

- P101, If medical advice is needed, have product container or label at hand.
- P102, Keep out of reach of children.

Prevention

- P280, Wear eye protection / protective gloves / protective clothing.

Response

- P302+P352, IF ON SKIN: Wash with plenty of water and soap.
- P305+P351+P338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310, Immediately call a POISON CENTER / doctor.
- P333+P313, If skin irritation or rash occurs: Get medical advice/attention.

Storage

-

Disposal

- P501, Dispose of contents/container to an approved waste disposal plant.

Hazardous substances

- bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight \leq 700)
- Polyamide resin
- Polyamid Harz
- Bisphenol-F-epoxy resin

2.3. Other hazards

Additional labelling

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

Additional warnings

- This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product/Ingredient name	Identifiers	% w/w	Classification	Note
bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight \leq 700)	CAS No.: 25068-38-6 EC No.: 500-033-5 REACH No.: Index No.: 603-074-00-8	40-60%	Aquatic Chronic 2, H411 Eye Irrit. 2, H319 (SCL: 5.00 %) Skin Sens. 1, H317 Skin Irrit. 2, H315 (SCL: 5.00 %)	
Polyamid Harz	CAS No.: 68154-62-1 EC No.: REACH No.: Index No.:	25-40%	Eye Dam. 1, H318 Aquatic Chronic 3, H412 Skin Sens. 1, H317 Skin Irrit. 2, H315	

Polyamide resin	CAS No.: 68154-62-1 EC No.: 614-339-2 REACH No.: 01-2119972322-40-xxxx Index No.:	25-40%	Aquatic Chronic 2, H411 Eye Dam. 1, H318 Skin Sens. 1, H317 Skin Irrit. 2, H315
Bisphenol-F-epoxy resin	CAS No.: 9003-36-5 EC No.: REACH No.: Index No.:	5-10%	Aquatic Chronic 2, H411 Eye Irrit. 2, H319 Skin Sens. 1, H317 Skin Irrit. 2, H315
Amines, polyethylenepoly-, tetraethylenepentamine fraction	CAS No.: 90640-66-7 EC No.: 292-587-7 REACH No.: 01-2119487290-37 Index No.:	3-5%	Acute Tox. 4, H312 Acute Tox. 4, H302 Aquatic Chronic 2, H411 Eye Dam. 1, H318 Skin Sens. 1, H317 Skin Corr. 1B, H314

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

No special

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

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

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

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

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

Avoid inhalation of vapours from spilled material.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section on "Disposal considerations" in regard of handling of waste.

See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section on 'Exposure controls/personal protection' for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original container.

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Storage temperature

No specific requirements

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

No data available

PNEC

No data available

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

General recommendations

Smoking, eating and drinking are not allowed in the work premises

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.

Respiratory Equipment

No specific requirements

Skin protection

No specific requirements

Hand protection

Work situation	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
	Nitrile	0.4	> 480	EN374-2, EN374-3, EN388



Eye protection

No specific requirements

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form

Liquid

Colour

Pale yellow

Odour

Testing not relevant or not possible due to nature of the product.

Odour threshold (ppm)

Testing not relevant or not possible due to nature of the product.

pH

8-10

Density (g/cm³)

1.07

Viscosity

Testing not relevant or not possible due to nature of the product.

Phase changes

Melting point (°C)

Testing not relevant or not possible due to nature of the product.

Boiling point (°C)

Testing not relevant or not possible due to nature of the product.

Vapour pressure

Testing not relevant or not possible due to nature of the product.

Vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Evaporation rate (n-butylacetate = 100)

Testing not relevant or not possible due to nature of the product.

Data on fire and explosion hazards

Flash point (°C)

Testing not relevant or not possible due to nature of the product.

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

Explosion limits (% v/v)

Testing not relevant or not possible due to nature of the product.

Explosive properties

Testing not relevant or not possible due to nature of the product.

Oxidizing properties

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Testing not relevant or not possible due to nature of the product.

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in the section "Handling and storage".

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Product/Ingredient name	Species	Test	Route of exposure	Result
bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	Rat	LD50	Dermal	>2000 mg/kg ·
bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	Rat	LD50	Oral	>5000 mg/kg ·
Bisphenol-F-epoxy resin	Rat	LD50	Oral	>10000 mg/kg ·
Bisphenol-F-epoxy resin	Rat	LD50	Dermal	>2000 mg/kg ·

Skin corrosion/irritation

Product/Ingredient name	Species	Test	Duration	Observation Period	Irritation Parameter	Result
bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	Rabbit	OECD 404	No data available.	No data	-	Adverse effect observed (Slightly irritating)

Causes skin irritation.

Serious eye damage/irritation

Product/Ingredient name	Species	Test	Duration	Observation Period	Irritation Parameter	Result
bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	Rabbit	OECD 404	No data available.	No data	-	Adverse effect observed (Slightly irritating)

Causes serious eye damage.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Other information

No special

SECTION 12: Ecological information

12.1. Toxicity

Product/Ingredient name	Species	Test	Duration	Result
bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	Fish	LC50	96 hours	1,5 mg/l ·
Bisphenol-F-epoxy resin	Fish	LC50	96 hours	0,55 mg/l ·
Amines, polyethylenepoly-, tetraethylenepentamine fraction	Crustacean	EC50	48 hours	24,1 mg/l ·

12.2. Persistence and degradability

Product/Ingredient name	Biodegradability	Test	Result
bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	No	OECD 301 F	5% (82% hydrolyses in 28 days)
Bisphenol-F-epoxy resin	No	OECD 301 D	0
Amines, polyethylenepoly-, tetraethylenepentamine fraction	No		

12.3. Bioaccumulative potential

Product/Ingredient name	Potential bioaccumulation	LogPow	BCF
bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	No	No data available	No data available
Bisphenol-F-epoxy resin	No	No data available	150.0000000

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 4 - Irritant (skin irritation and eye damage)

HP 13 – Sensitising

HP 14 – Ecotoxic

Dispose of contents/container to an approved waste disposal plant.

EWC code

20 01 27* Paint, inks, adhesives and resins containing dangerous substances

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 - 14.4

This product is within scope of the regulations of transport of dangerous goods.

These substances when carried in single or combination packaging's containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR/IMDG/IATA provided the packaging's meet the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.4 - 4.1.1.8 (ADR, IMDG) / 5.0.2.4.1, 5.0.2.6.1.1, 5.0.2.8 (IATA)

ADR/RID

UN- or ID number	UN proper shipping name	Labels	PG	Tunnel restriction code
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))	9	III	3 (-)

IMDG

UN- or ID number	UN proper shipping name	Labels	PG	EmS
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))	9	III	F-A, S-F

IATA

UN- or ID number	UN proper shipping name	Labels	PG
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))	9	III

"MARINE POLLUTANT"

Yes

14.5. Environmental hazards

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 shall not be exposed to this product.

Demands for specific education

Use of this product requires dedicated training in work with polyurethane and epoxy products.

SEVESO - Categories / dangerous substances

E2 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 200 tonnes / (upper-tier): 500 tonnes

Additional information

Not applicable

Sources

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

The Control of Major Accident Hazards (COMAH) Regulations 2015.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP).

Regulation (EC) 1907/2006 (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H411, Toxic to aquatic life with long lasting effects.

H319, Causes serious eye irritation.

H317, May cause an allergic skin reaction.

H315, Causes skin irritation.

H318, Causes serious eye damage.

H412, Harmful to aquatic life with long lasting effects.

H312, Harmful in contact with skin.

H302, Harmful if swallowed.

H314, Causes severe skin burns and eye damage.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

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

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit.
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVCB = Complex hydrocarbon substance
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the substance/mixture is based on:

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The safety data sheet is validated by

Product Safety Department

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.