Safety Data Sheet according to Regulation (EC) 'No. 2020/878



















SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

FLOWBOND ESB NATURAL PART A Revision Date: 04/07/2023 **Product Identifier**

Supersedes Date: Flowbond ESB Natural Part A New SDS **Product Name:**

> 1 **Version Number:**

UFI Code: EX52-90A1-7004-225H

Nanoform:

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

Component of multicomponent coatings - Professional use only. Coatings and paints, thinners, paint removers. Manual activities involving hand contact. Widespread use leading to inclusion into/onto article (indoor). Widespread use leading to inclusion into/ onto article (outdoor). For use by appropriately trained applicators. Roller application or brushing. Advised against: Home DIY applications. Advised against: Spray application, because of the additional hazards. Advised against: others than recommended

1.3 Details of the supplier of the safety data sheet

Tremco CPG Poland Sp. z o. o. Manufacturer:

> Ul. Marywilska 34 03-228 Warszawa

Polska

Tel: +48 22 879 8907 Fax: +48 22 879 8918 ehs.uk@flowcrete.com www.flowcrete.com.pl/

ehs.uk@flowcrete.com **Datasheet Produced by:**

CHEMTREC +1 703 5273887 (Outside US) 1.4 Emergency telephone number:

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Skin Irritation, category 2	H315
Skin Sensitizer, category 1	H317
Eye Irritation, category 2	H319
Hazardous to the aquatic environment, Chronic, category 2	H411

2.2 Label elements

Symbol(s) of Product





Signal Word

Warning

Named Chemicals on Label

bis[4-(2,3-epoxypropoxy)phenyl]propane, 1,6-Hexanediol diglycidyl ether, henyleneoxymethylene)]bis(oxirane) and 2,2'-[methylenebis

HAZARD STATEMENTS

Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Hazardous to the aquatic environment, Chronic, category 2	H411	Toxic to aquatic life with long lasting effects.
PRECAUTION PHRASES		
	P261	Avoid breathing dust/fume/gas/mist/vapours/spray

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so.
	Continue rinsing.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.

P391 Collect spillage.

2.3 Other hazards

Ingestion may cause irritation to mucous membranes.

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

Endocrine disrupting properties - Toxicity

Name According to EEC CAS-No.

No Information

Endocrine disrupting properties - Ecotoxicity

Name According to EEC CAS-No.

No Information

SECTION 3: Composition/Information On Ingredients

3.1 Substances

Not applicable

Date Printed: 04/07/2023

3.2 Mixtures

Hazardous ingredients

Name According to EEC EINEC No. CAS-No. REACH Reg No.	<u>%</u>	<u>Classifications</u>	,	SCL Value: ATE Value: M-Factor:
bis[4-(2,3-epoxypropoxy) phenyl]propane 216-823-5 1675-54-3 No Information	50 - <75	H315-317-319-411 Aquatic Chronic 2, Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1	SCL Value: ATE Value: M-Factor:	-
1,6-Hexanediol diglycidyl ether 240-260-4 16096-31-4 01-2119463471-41	2.5 - <10	H315-317-319-412 Aquatic Chronic 3, Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1	SCL Value: ATE Value: M-Factor:	-
henyleneoxymethylene)]bis (oxirane) and 2,2'- [methylenebis 701-263-0 No Information	2.5 - <10	H315-317-411 Aquatic Chronic 2, Skin Irrit. 2, Skin Sens. 1	SCL Value: ATE Value: M-Factor:	-

Naphtha (petroleum), hydrotreated heavy	<0.1	H304-315-336-411	SCL Value:	-
265-150-3			ATE Value:	-
64742-48-9		Aquatia Chronia 2 Aon Toy 1 Skin krit 2	ATE value:	-
No Information		Aquatic Chronic 2, Asp. Tox. 1, Skin Irrit. 2, STOT SE 3 NE	M-Factor:	-
Cineole	<0.1	H317	SCL Value:	-
470-82-6				
No Information			ATE Value:	-
		Skin Sens. 1		
			M-Factor:	-

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance.

AFTER INHALATION: Remove person to fresh air. If signs/symptoms continue, get medical attention.

AFTER SKIN CONTACT: Use a mild soap if available. Do not use solvent or thinners to clean skin. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

AFTER INGESTION: Consult a physician. Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Never give anything by mouth to an unconscious person. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.

Self protection of the first aider:

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.

4.2 Most important symptoms and effects, both acute and delayed

May cause sensitization by skin contact. Irritating to eyes and skin.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

FOR SAFETY REASONS NOT TO BE USED: Do not use a solid water stream as it may scatter and spread fire. Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced such as: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

5.3 Advice for firefighters

Keep containers and surroundings cool with water spray. In the event of fire, wear self-contained breathing apparatus. Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Avoid contact with skin, eyes and clothing. For personal protection see section 8.2. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

6.1.2 For emergency responders

See Section 7. 8 and 10 for further information.

6.2 Environmental precautions

Discharge into the environment must be avoided. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. May cause long-term adverse effects in the aquatic environment.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 8 and 13 for further information. Refer to protective measures listed in sections 7 and 8.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin and eyes. Apply technical measures to comply with the occupational exposure limits (see section 8). People handling epoxy products must have received special training according to guidelines from the National Occupational Health and Safety Board.

Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze. **STORAGE CONDITIONS:** Keep out of the reach of children. Keep at temperatures between 10 and 25 °C. Store in original container. Keep container tightly closed in a dry and well-ventilated place. Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s)

Component of multicomponent coatings. The mixing and application to be in accordance with the technical data sheets.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (UK WELS)

NameCAS-No.LTEL ppmSTEL ppmSTEL mg/m3LTEL mg/m3bis[4-(2,3-epoxypropoxy)phenyl]propane1675-54-31,6-Hexanediol diglycidyl ether16096-31-4

henyleneoxymethylene)]bis(oxirane) and

2,2'-[methylenebis

Naphtha (petroleum), hydrotreated heavy 64742-48-9 Cineole 470-82-6

Name CAS-No. OEL Note

bis[4-(2,3-epoxypropoxy)phenyl]propane 1675-54-3 1,6-Hexanediol diglycidyl ether 16096-31-4

henyleneoxymethylene)]bis(oxirane) and

2,2'-[methylenebis

Naphtha (petroleum), hydrotreated heavy 64742-48-9

Cineole 470-82-6

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

Chemical Name:

bis[4-(2,3-epoxypropoxy)phenyl]propane

EC No.: CAS-No.: 216-823-5 1675-54-3

DNELs - Derived no effect level

	Workers				ers Consumers			
Route of	Acute effect	Acute effects	Chronic	Chronic effects	Acute effect	Acute effects	Chronic	Chronic effects
Exposure	local	systemic	effects local	systemic	local	systemic	effects local	systemic
Oral		Not required						
Inhalation				4.93 mg/m3				
Dermal				0.75 mg/kg bw/				
	_			day				

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.006 mg/l
Fresh water sediments	0.341 mg/kg
Marine water	0.001mg/l
Marine sediments	0.0341 mg/kg
Food chain	
Microorganisms in sewage treatment	10 mg/l
soil (agricultural)	0.065 mg/kg
Air	

Chemical Name:

1,6-Hexanediol diglycidyl ether

EC No.: CAS-No.: 240-260-4 16096-31-4

DNELs - Derived no effect level

	Workers					Cons	sumers	
Route of	Acute effect	Acute effects	Chronic	Chronic effects	Acute effect	Acute effects	Chronic	Chronic effects
Exposure	local	systemic	effects local	systemic	local	systemic	effects local	systemic
Oral	Not required				0.83 mg/kg		0.83 mg/kg bw/d	
•				bw/d				
Inhalation			0.44 mg/m ³	4.9 mg/m ³		2.9 mg/m ³	0.27 mg/m ³	2.9 mg/m ³
Dermal			22.6 μg/cm ²	2.8 mg/kg bw/d	13.6 μg/cm ²	1.7 mg/kg bw/	13.6 μg/cm ²	1.7 mg/kg bw/d
						d	. •	-

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.0115 mg/l
Fresh water sediments	0.283 mg/kg
Marine water	1.15 μg/l
Marine sediments	0.283 mg/kg
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	
Air	

8.2 Exposure controls

9.1

Colour:

Flammability (solid, gas)

Vapour Pressure

Personal Protection

RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment, filter A.

EYE PROTECTION: Eye wash bottle with pure water. Safety glasses with side-shields conforming to EN 166.

White

HAND PROTECTION: Protective gloves complying with EN 374: Nitrile rubber. Butyl rubber. PVA. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Long sleeved clothing. Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: Ensure that eyewash stations and safety showers are close to the workstation location. **ENGINEERING CONTROLS:** Ensure adequate ventilation, especially in confined areas.

SECTION 9: Physical and Chemical Properties

Physical State Liquid Odor Slight Odor threshold Not determined Not determined Melting point / freezing point (°C) Not determined Boiling point or initial boiling point and 136 - N.D. boiling range (°C) Flash Point, (°C) Not measured **Evaporation rate** Not determined

Information on basic physical and chemical properties

Llower and upper explosive limit Not determined

Not determined

Not determined

Relative vapour density

Not determined

Density and/or relative density

ca. 1.4 g/cm³.

Solubility in / Miscibility with water 080111

Partition coefficient: n-octanol/water

Auto-ignition temperature (°C)

Not determined

Decomposition temperature (°C)

Not determined

Kinematic viscosity

Not determined

Particle characteristics Not applicable to liquids

9.2 Other information

VOC Content g/l: <100

Specific Gravity (g/cm3) 0.120

SECTION 10: Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under recommended storage and use conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Amines cause exothermic reactions.

10.4 Conditions to avoid

Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze.

10.5 Incompatible materials

Oxidizing agents. Acids and bases.

10.6 Hazardous decomposition products

In case of fire **hazardous decomposition products** may be produced such as: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as definied in Regulation (EC) No 1272/2008

Acute Toxicity:

Oral LD50: No Information
Inhalation LC50: No Information
Dermal LD50: No Information

Irritation: Irritating to eyes and skin.

Corrosivity: No information available.

Sensitization: May cause an allergic skin reaction.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

No information available. Toxicity for reproduction:

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

No information available. Aspiration hazard:

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Name According to EEC	Oral LD50	<u>Dermal LD50</u> <u>Vapor LC50</u>	Gas LC50	Dust/Mist LC50
16096-31-4	1,6-Hexanediol diglycidyl ether	3010 mg/kg (rat)	>2000 mg/kg (rat)	0.000	0.000
	henyleneoxymethylene)]bis (oxirane) and 2,2'- [methylenebis	>5000 mg/kg	>2000 mg/kg	0.000	0.000

Additional Information:

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Ingestion may cause irritation to mucous membranes. Irritating to eyes and skin. May cause allergic skin reaction.

11.2 Information on other hazards

Endocrine disrupting properties - Toxicity

Name According to EEC CAS-No.

No Information

SECTION 12: Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): No information IC50 72hr (Algae): No information LC50 96hr (fish): No information

12.2 Persistence and degradability: No information

No information 12.3 Bioaccumulative potential:

Mobility in soil: 12.4 No information

Results of PBT and vPvB The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

assessment:

12.6 Endocrine disrupting properties

Endocrine disrupting properties - Ecotoxicity

Name According to EEC CAS-No.

No Information

12.7 Other adverse effects:

No information

CAS-No.	Name According to EEC	EC50 48hr	IC50 72hr	LC50 96hr
1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane	No information	No information	1.3 mg/l
16096-31-4	1,6-Hexanediol diglycidyl ether	47 mg/l	No information	30 mg/l
	henyleneoxymethylene)]bis(oxirane) and 2,2'- [methylenebis	2.55 mg/l	1.8 mg/l	5.7 mg/l
64742-48-9	Naphtha (petroleum), hydrotreated heavy	No information	No information	No information
470-82-6	Cineole	No information	No information	No information

SECTION 13: Disposal Considerations

13.1 WASTE TREATMENT METHODS: Dispose of waste material at an approved hazardous waste treatment/disposal facility in accordance with applicable local state, and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems. Contaminated packaging to be disposed of as product. Fully drained containers which are drop- and scrape-free can be treated as industrial waste, and can possibly be recycled. Empty containers should be taken to an approved waste handling site for recycling or disposal. The product should not be allowed to enter drains, water courses or the soil.

European Waste Code:No Information 150110

SECTION 14: Transport Information

Date Printed: 04/07/2023

		ADR/RID	ADN	IMDG	IATA
14.1	UN-number or ID number	UN3082	UN3082	UN3082	UN3082
14.2	UN proper shipping name	Environmentally hazardous substance, liquid, N.O.S.,(Epoxy Resin MW<700)	Environmentally hazardous substance, liquid, N.O.S.,(Epoxy Resin MW<700)	Environmentally hazardous substance, liquid, N.O.S.,(Epoxy Resin MW<700)	Environmentally hazardous substance, liquid, N.O.S., (Epoxy Resin MW<700)
14.3	Transport Hazard Class(es)	9	9	9	9
14.4	Packing Group	III	III	III	III
14.5	Enviromental Hazards	No Information	No Information	No Information	No Information

14.6 Special precautions for user Not applicable EmS-No.: Not applicable
 14.7 Maritime transport in bulk according to IMO intruments

SECTION 15: Regulatory Information

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

National Regulations:

Denmark Product Registration Number: Not available

Danish MAL Code: 00-5 (1993)

Danish MAL Code - Mixture: Not available

Sweden Product Registration Number: Not available

Norway Product Registration Number: 314418

Germany WGK Class: Not available

Directive 2004/42/CE : <100

Covered by Directive 2012/18/EC (Seveso III): Not applicable

Restrictions to product or to substances according

to Annex XVII, Regulation (CE) 1907/2006:

Not applicable

Annex XIV, Regulation (CE) 1907/2006 - Authorisation List:

CAS-No. Name According to EEC

Not Applicable

Date Printed: 04/07/2023

SVHC - Substances of very high concern (Candidate List - Art. 59 REACH):

CAS-No. Name According to EEC

Not Applicable

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Reasons for revision

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List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

- The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark.
- Joint Research Centre in Ispra, Italy.
- Regulation (EC) 1272/2008 with subsequent amendments.
- Regulation (EC) 1272/2006 with subsequent amendments.
- Commission Regulation (EU) 2020/878
- EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"
- Safety Data Sheet from raw material supplier
- The classification declared in sec. 2.2 is based on the calculation methods set out in Annex I and Annex II of the CLP Reg. 1272/2008 on the composition of the formula.

Acronym & Abbreviation Key:

CLP Classification, Labeling & Packaging Regulation

EC European Commission
EU European Union
US United States

CAS Chemical Abstract Service

EINECS European Inventory of Existing Chemical Substances

REACH Registration, Evaluation, Authorization of Chemicals Regulation

GHS Globally Harmonized System of Classification and Labeling of Chemicals

LTEL Long term exposure limit
STEL Short term exposure limit
OEL Occupational exposure limit

ppm Parts per million

mg/m3 Milligrams per cubic meter TLV Threshold Limit Value

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety & Health Administration

PEL Permissible Exposure Limits VOC Volatile organic compounds

g/l Grams per liter

mg/kg Milligrams per kilogram

N/A Not applicable LD50 Lethal dose at 50%

LC50 Lethal concentration at 50%

EC50 Half maximal effective concentration

IC50 Half maximal inhibitory concentration

PBT Persistent bioaccumulative toxic chemical

vPvB Very persistent and very bioaccumulative

EEC European Economic Community

ADR International Transport of Dangerous Goods by Road RID International Transport of Dangerous Goods by Rail

UN United Nations

IMDG International Maritime Dangerous Goods Code
IATA International Air Transport Association

MARPOL International Convention for the Prevention of Pollution From Ships, 1973 as

modified by the Protocol of 1978

IBC International Bulk Container RTI Respiratory Tract Irritation

NE Narcotic Effects

IMO International Maritime Organization

Note P: The classification as a carcinogen or mutagen need not apply; the substance

contains less than 0,1 % w/w benzene

Note 10: The classification as a carcinogen by inhalation applies only to mixtures in

powder form containing 1 % or more of titanium dioxide which is in the form of

or incorporated in particles with aerodynamic diameter \leq 10 μ m.

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.