SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878



DUOFIX B

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

1.1. Product identifier

: DUOFIX B Product name **Registration number REACH** : Not applicable (mixture) Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Adhesive Hardener

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

Novatio* Industrielaan 5B B-2250 Olen **2** +32 14 25 76 40 ₲ +32 14 22 02 66 info@novatio.be *NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V. Industrielaan 5B B-2250 Olen +32 14 85 97 37 info@novatech.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) : +32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as danger	Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008						
Class	Category	zard statements					
Skin Sens.	category 1	H317: May cause an allergic skin reaction.					
Skin Irrit.	category 2	H315: Causes skin irritation.					
Eye Irrit.	category 2	H319: Causes serious eye irritation.					
Aquatic Chronic	category 3	H412: Harmful to aquatic life with long lasting effects.					

2.2. Label elements

Revision number: 0500



Contains: poly[oxy(methyl-1,2-ethanediyl)], α-hydro-ω-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether.

Signal word	Warning		
H-statements			
H317	May cause an allergic skin reaction.		
H315	Causes skin irritation.		
H319	Causes serious eye irritation.		
H412	Harmful to aquatic life with long lasting effect	S.	
P-statements			
P280	Wear protective gloves, protective clothing an	d eye protection/face protection.	
P264	Wash hands thoroughly after handling.		
d by: Brandweerinforma	tiecentrum voor gevaarlijke stoffen vzw (BIG)	Publication date: 2002-11-14	e P
sche Schoolstraat 43 A, E	-2440 Geel	Date of revision: 2021-08-14	023
/www.big.be			39-0
VZW			162
n for revision: 2, 3, 8, 9, 1	2		878-16239-023

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG) Technische Schoolstraat 43 A, B-2440 Geel http://www.big.be © BIG vzw Reason for revision: 2, 3, 8, 9, 12

BIG number: 33030

P302 + P352 P333 + P313 P305 + P351 + P338 IF ON SKIN: Wash with plenty of water and soap.

If skin irritation or rash occurs: Get medical advice/attention.

L + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

No other hazards known

P337 + P313

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
poly[oxy(methyl-1,2-ethanediyl)], α-hydro- ω-hydroxy-, ether with 2,2-bis (hydroxymethyl)-1,3-propanediol (4:1), 2- hydroxy-3-mercaptopropyl ether	72244-98-5		Skin Sens. 1B; H317 Aquatic Chronic 3; H412	(1)(V)	Constituent	
	52338-87-1 257-861-2		Skin Irrit. 2; H315 Eye Irrit. 2; H319	(1)(10)	Constituent	

(1) For H- and EUH-statements in full: see section 16

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

(V) Exempted from registration under REACH (Regulation (EC) No 1907/2006, article 2 (9), polymers)

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

After eye contact:

Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

- 4.2.1 Acute symptoms After inhalation:
- No effects known. After skin contact: Tingling/irritation of the skin. After eye contact: Irritation of the eye tissue. After ingestion: No effects known. 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher. Major fire: Class B foam (not alcohol-resistant).

5.1.2 Unsuitable extinguishing media:

Reason for revision: 2, 3, 8, 9, 12

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Revision number: 0500

BIG number: 33030

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.

Major fire: Water; risk of puddle expansion.

5.2. Special hazards arising from the substance or mixture

On heating/burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

5.3. Advice for firefighters

5.3.1 Instructions:

Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See section 8.2

6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Suitable protective clothing

See section 8.2

6.2. Environmental precautions

Contain released product. Dam up the liquid spill. Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See section 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe very strict hygiene - avoid contact. Remove contaminated clothing immediately. Keep container tightly closed. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Meet the legal requirements. Store in a cool area. Store in a dry area. Keep container in a well-ventilated place. Provide for a tub to collect spills. Keep only in the original container.

7.2.2 Keep away from:

Heat sources, oxidizing agents.

7.2.3 Suitable packaging material:

No data available

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1	8.1.2 Sampling methods							
	Product name	Test	Number					
	Amines, Aliphatic	NIOSH	2010					

8.1.3 Applicable limit values when using the substance or mixture as intended If limit values are applicable and available these will be listed below.

8.1.4 Threshold values

If applicable and available it will be listed below.

Reason for revision: 2, 3, 8, 9, 12

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Do not eat, drink or smoke during work.

a) Respiratory protection:

Respiratory protection not required in normal conditions.

b) Hand protection:

Protective gloves against chemicals (EN 374).							
Materials	Measured breakthrough time	Thickness	Protection index	Remark			
nitrile rubber	> 480 minutes	0.4 mm	Class 6				

c) Eye protection:

Face shield (EN 166).

d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Liquid
Odour	Characteristic odour
Odour threshold	No data available in the literature
Colour	Yellow
Particle size	Not applicable (liquid)
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	15000 mPa.s
Kinematic viscosity	No data available in the literature
Melting point	No data available in the literature
Boiling point	> 200 °C
Relative vapour density	No data available in the literature
Vapour pressure	5 hPa
Solubility	Water ; insoluble
Relative density	1.12
Absolute density	1120 kg/m ³
Decomposition temperature	No data available in the literature
Auto-ignition temperature	No data available in the literature
Flash point	> 93 °C
рН	Not applicable (non-soluble in water)

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Temperature above flashpoint: higher fire/explosion hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Keep away from naked flames/heat.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Reason for revision: 2, 3, 8, 9, 12

Revision number: 0500

On heating/burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

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

11.1.1 Test results

Acute toxicity

DUOFIX B

No (test)data on the mixture available Judgement is based on the relevant ingredients

<u>Conclusion</u>

Not classified for acute toxicity

Corrosion/irritation

DUOFIX B

No (test)data on the mixture available

Classification is based on the relevant ingredients

<u>1,3-bis[3-</u>	(dimethylam	ino)propyl	lurea
		1	

R	oute of exposure	Result	Method	Exposure time	Time point	Species	Value	Remark
							determination	
E	iye	Irritating;					Literature study	
		category 2						
5	ikin	Irritating;					Literature study	
L		category 2						

Conclusion

Causes skin irritation.

Causes serious eye irritation.

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

DUOFIX B

No (test)data on the mixture available

Classification is based on the relevant ingredients

poly[oxy(methyl-1,2-ethanediyl)], α-hydro-ω-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether

Route of exposure	Result	Method	•	Observation time point	Species	Value determination	Remark
Skin	Sensitizing; category 1B					Literature study	

Conclusion

May cause an allergic skin reaction. Not classified as sensitizing for inhalation

Specific target organ toxicity

DUOFIX B

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

DUOFIX B

No (test)data on the mixture available Judgement is based on the relevant ingredients

Mutagenicity (in vivo)

DUOFIX B

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

DUOFIX B

No (test)data on the mixture available Judgement is based on the relevant ingredients <u>Conclusion</u> Not classified for carcinogenicity

Reason for revision: 2, 3, 8, 9, 12

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Reproductive toxicity

DUOFIX B

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

DUOFIX B

No (test)data on the mixture available

Chronic effects from short and long-term exposure

DUOFIX B

Skin rash/inflammation.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Eco	logical in	formatior
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12.1. Toxicity

DUOFIX B

No (test)data on the mixture available

Classification is based on the relevant ingredients

1,3-bis[3-(dimethylamino)propyl]urea

	Parameter	Method	Value	Duration	Species		Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 202	> 1000 mg/l	96 h	Oryzias latipes	Semi-static system		Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	93 mg/l	48 h	Daphnia magna		Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	ErC50	OECD 201	> 100 mg/l	72 h	Pseudokirchneri ella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
	EC10	OECD 201	> 100 mg/l	72 h	Pseudokirchneri ella subcapitata	Static system	Fresh water	Experimental value; Growth rate

Conclusion

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

1,3-bis[3-(dimethylamino)propyl]urea

Biodegradation water

Method	Value	Duration	Value determination	
OECD 301C	1 %; Oxygen consumption	28 day(s)	Experimental value	

Conclusion

Water

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

DUOFIX B

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

poly[oxy(methyl-1,2-ethanediyl)], α-hydro-ω-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			
hic[2 /dimethylamine)propullyroa				

1,3-bis[3-(dimethylamino)propyl]urea

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	< 2.3; Fresh weight	28 day(s)	Cyprinus carpio	Experimental value
og Kow					
	Dama	rk	Value	Temperature	Value determination
Method	Rema	IN	value	remperature	

Reason for revision: 2, 3, 8, 9, 12

Publication date: 2002-11-14 Date of revision: 2021-08-14

BIG number: 33030

Conclusion

No straightforward conclusion can be drawn based upon the available numerical values

12.4. Mobility in soil

1,3-bis[3-(dimethylamino)propyl]urea

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.602	Calculated value

Conclusion

Contains component(s) with potential for mobility in the soil

12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

DUOFIX B

Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

Groundwater

Groundwater pollutant

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997. Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 04 09* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

Transport	Not subject	
4.2. UN proper shipping name		
4.3. Transport hazard class(es)		
Hazard identification number		
Class		
Classification code		
4.4. Packing group		
Packing group		
Labels		
4.5. Environmental hazards		
Environmentally hazardous substance mark	no	
4.6. Special precautions for user		
Special provisions		
Limited quantities		
4.7. Maritime transport in bulk according to IMO instruments		
Annex II of MARPOL 73/78	Not applicable, based on available data	

Reason for revision: 2, 3, 8, 9, 12

SECTION 15: Regu	latory information
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15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
10 % - 25 %	
112 g/l - 280 g/l	

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
 1,3-bis[3-(dimethylamino)propyl]urea 	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	 Shall not be used in: ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, tricks and jokes, games for one or more participants, or any article intended to be used as such, even with ornamental aspects, Articles not complying with paragraph 1 shall not be placed on the market. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:

National legislation Belgium

DUOFIX B

No data available

National legislation The Netherlands

Waterbezwaarlijkheid A (3); Algemene Beoordelingsmethodiek (ABM)

National legislation France

No data available

National legislation Germany

<u> </u>	DUOFIX B				
Lagerklasse (TRGS510) 10: Brennbare Flüssigkeiten die keiner der vorgenannten LGK zuzuordnen sind		10: Brennbare Flüssigkeiten die keiner der vorgenannten LGK zuzuordnen sind			
	WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017			
p	poly[oxy(methyl-1,2-ethanediy])], α-hydro-ω-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether				
	TA-Luft	5.2.5			
1	1,3-bis[3-(dimethylamino)propy]]urea				
	TA-Luft	5.2.5			

National legislation United Kingdom

No data available

Other relevant data

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

Reason for revision: 2, 3, 8, 9, 12

SECTION 16: Other information

Full text of any H- and EUH-statements referred to under section 3:

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction. H319 Causes serious eve irritation.
- H319 Causes serious eye irritation.
- H412 Harmful to aquatic life with long lasting effects.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.