Kit components

Product code	Description
335	**Variobond Flex set**

Components:

333	Variobond base component
334	Variobond hardener

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 18.07.2023 Version number 48 (replaces version 47) Revision: 26.06.2023

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

· **1.1 Product identifier**

· Trade name: **Variobond base component**

· Article number: 333
· UFI: RAQ2-M072-200M-8P4Q
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU19 Building and construction work
· Product category PC9b Fillers, putties, plasters, modelling clay
· Process category PROC19 Manual activities involving hand contact
· Environmental release category ERC5 Use at industrial site leading to inclusion into/onto article
ERC8c Widespread use leading to inclusion into/onto article (indoor)
ERC8f Widespread use leading to inclusion into/onto article (outdoor)
· Article category AC13 Plastic articles
· Application of the substance / the mixture See our technical datasheet for application details of this product.
Epoxy resin adhesive

· **1.3 Details of the supplier of the safety data sheet**
· Manufacturer/Supplier: De IJssel Coatings BV, Centrumbaan 960, NL 2841 MH Moordrecht
Tel: +31 182 372177, E-mail: info@de-ijssel-coatings.nl

· Further information obtainable from: Research and Development.
· **1.4 Emergency telephone number:** De IJssel Coatings BV, Tel. +31 182 372177, E-mail: safety@de-ijssel-coatings.nl
Office hours: working days from 08:00 to 17:00 hrs.

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SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· Classification according to Regulation (EC) No 1272/2008

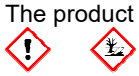

GHS09 environment

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


GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

· **2.2 Label elements**
· Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.
· Hazard pictograms


GHS07 GHS09

· Signal word Warning

· Hazard-determining components of labelling: bis[4-(2,3-epoxypropoxy)phenyl]propane
reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
1,6-bis(2,3-epoxypropoxy)hexane
· Hazard statements H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
· Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P261 Avoid breathing mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P362+P364	Take off contaminated clothing and wash it before reuse.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/regional/ national/international regulations.

· **2.3 Other hazards**
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 1675-54-3 EINECS: 216-823-5 Index number: 603-073-00-2 Reg.nr.: 01-2119456619-26	bis[4-(2,3-epoxypropoxy)phenyl]propane Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 %	25 – 50%
CAS: 9003-36-5 NLP: 500-006-8 Reg.nr.: 01-2119454392-40	reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317, EUH205	10 – 25%
CAS: 933999-84-9 EC number: 618-939-5 Reg.nr.: 01-2119463471-41	1,6-bis(2,3-epoxypropoxy)hexane Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	10 – 25%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· General information: Immediately remove any clothing soiled by the product.
· After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· After swallowing: If symptoms persist consult doctor.
· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
· **5.3 Advice for firefighters**
· Protective equipment: No special measures required.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
· **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)

(Contd. of page 2)

· **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.

· **6.4 Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

* *SECTION 7: Handling and storage*

· **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

· Information about fire - and explosion protection: No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· Storage:

· Requirements to be met by storerooms and receptacles: Store material in original, tightly closed containers in a cool, well-ventilated area in accordance with applicable (local) regulations. Depending on total volume stored, the storage area should comply with PGS15.

· Information about storage in one common storage facility: Not required.

· Further information about storage conditions: Keep container tightly sealed.

· Recommended storage temperature: 5 - 30 □

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNEL (Derived No Effect Level) for workers		
1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
Dermal	Long-term - systemic effects, worker	0.75 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, worker	4.93 mg/m³ (Worker)
9003-36-5 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)		
Dermal	Acute - local effects,worker	8.3 µg/cm² (Worker)
	Long-term - systemic effects, worker	104.15 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, worker	29.39 mg/m³ (Worker)
933999-84-9 1,6-bis(2,3-epoxypropoxy)hexane		
Dermal	Long-term - systemic effects, worker	2.8 mg/kg bw/day (Worker)
	Long term - local effects, worker	22.6 µg/cm² (Worker)
Inhalative	Long-term - systemic effects, worker	10.57 mg/m³ (Worker)
	Long-term - local effects, worker	0.44 mg/m³ (Worker)

· DNEL (Derived No Effect Level) for the general population		
1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
Oral	Long-term - systemic effects, general population	0.5 mg/kg bw/day (General population)
Dermal	Long-term - systemic effects, general population	0.0893 mg/kg bw/day (General population)
Inhalative	Long-term - systemic effects, general population	0.87 mg/m³ (General population)
9003-36-5 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)		
Oral	Long-term - systemic effects, general population	6.25 mg/kg bw/day (General population)
Dermal	Long-term - systemic effects, general population	62.5 mg/kg bw/day (General population)
Inhalative	Long-term - systemic effects, general population	8.7 mg/m³ (General population)

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933999-84-9 1,6-bis(2,3-epoxypropoxy)hexane		
Oral	Acute - systemic effects, general population	0.83 mg/kg bw/day (General population)
	Long-term - systemic effects, general population	0.83 mg/kg bw/day (General population)
Dermal	Acute - systemic effects, general population	1.7 mg/kg bw/day (General population)
	Acute - local effects, general population	13.6 µg/cm² (General population)
	Long-term - systemic effects, general population	1.7 mg/kg bw/day (General population)
	Long-term - local effects, general population	13.6 µg/cm² (General population)
Inhalative	Acute - systemic effects, general population	2.9 mg/m³ (General population)
	Long-term - systemic effects, general population	2.9 mg/m³ (General population)
	Long-term - local effects, general population	0.27 mg/m³ (General population)

· PNEC (Predicted No Effect Concentration) values

1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane	
Aquatic compartment - freshwater	0.006 mg/l (Freshwater)
Aquatic compartment - marine water	0.001 mg/l (Marine water)
Aquatic compartment - sediment in freshwater	0.341 mg/kg sed dw (Sediment freshwater)
Aquatic compartment - sediment in marine water	0.034 mg/kg sed dw (Sediment marine water)
Terrestrial compartment - soil	0.065 mg/kg dw (Soil)
Sewage treatment plant	10 mg/l (stp)
Oral secondary poisoning	11 mg/kg food (Food sec poisoning)
9003-36-5 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	
Aquatic compartment - freshwater	0.003 mg/l (Freshwater)
Aquatic compartment - marine water	0.0003 mg/l (Marine water)
Aquatic compartment - water, intermittent releases	0.0254 mg/l (Intermittent release water)
Aquatic compartment - sediment in freshwater	0.294 mg/kg sed dw (Sediment freshwater)
Aquatic compartment - sediment in marine water	0.0294 mg/kg sed dw (Sediment marine water)
Terrestrial compartment - soil	0.237 mg/kg dw (Soil)
Sewage treatment plant	10 mg/l (stp)
933999-84-9 1,6-bis(2,3-epoxypropoxy)hexane	
Aquatic compartment - freshwater	0.0115 mg/l (Freshwater)
Aquatic compartment - marine water	0.0015 mg/l (Marine water)
Aquatic compartment - water, intermittent releases	0.115 mg/l (Intermittent release water)
Aquatic compartment - sediment in freshwater	0.283 mg/kg sed dw (Sediment freshwater)
Aquatic compartment - sediment in marine water	0.283 mg/kg sed dw (Sediment marine water)

· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· Appropriate engineering controls No further data; see section 7.

· Individual protection measures, such as personal protective equipment

· General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Hand protection
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves
Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Recommended thickness of the material: ≥ 0.3 mm

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· Penetration time of glove material	The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 16523-1:2015: Level 6).
· For the permanent contact gloves made of the following materials are suitable:	Nitrile rubber, NBR
· As protection from splashes gloves made of the following materials are suitable:	Nitrile rubber, NBR
· Not suitable are gloves made of the following materials:	Leather gloves Strong material gloves
· Eye/face protection	Tightly sealed goggles

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· General Information	
· Physical state	Fluid
· Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	Undetermined.
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	0.0 Vol %
· Upper:	0.0 Vol %
· Flash point:	151 °C (Pensky Martens, ASTM D93)
· Auto-ignition temperature:	460 °C
· Decomposition temperature:	Not determined.
· pH at 20 °C	7
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	1.468 g/cm³ (DIN 51757, ASTM D 1298)
· Relative density	Not determined.
· Vapour density	Not determined.
· **9.2 Other information**	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· VOC:	
· VOC (2004/42/EC):	0.00 %
· Solids content:	100.0 %
· Change in condition	
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void

(Contd. on page 6)

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· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.
· **10.2 Chemical stability**
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

* *SECTION 11: Toxicological information*

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· Acute toxicity Based on available data, the classification criteria are not met.
· LD/LC50 values relevant for classification:

· Components	Type	Value	Species
9003-36-5 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)			
Oral	LD50	23,800 mg/kg (Rat)	
Dermal	LD50	> 2,000 mg/kg (Rabbit)	
933999-84-9 1,6-bis(2,3-epoxypropoxy)hexane			
Oral	LD50	2,900 mg/kg (Rat)	
Dermal	LD50	> 4,900 mg/kg (Rat)	

· Skin corrosion/irritation Causes skin irritation.
· Serious eye damage/irritation Causes serious eye irritation.
· Respiratory or 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.
· **11.2 Information on other hazards**

· Endocrine disrupting properties
None of the ingredients is listed.

* *SECTION 12: Ecological information*

· **12.1 Toxicity**
· Aquatic toxicity: No further relevant information available.
· **12.2 Persistence and degradability** No further relevant information available.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **12.5 Results of PBT and vPvB assessment**
· PBT: Not applicable.
· vPvB: Not applicable.

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· **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
· **12.7 Other adverse effects**
· Remark: Toxic for fish
· Additional ecological information:
· General notes: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue	
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
HP4	Irritant - skin irritation and eye damage
HP13	Sensitising
HP14	Ecotoxic

· Uncleaned packaging:
· Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN number or ID number**
· ADR/RID/ADN, IMDG, IATA UN3082

· **14.2 UN proper shipping name**
· ADR/RID/ADN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis[4-(2,3-epoxypropoxy)phenyl]propane, reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))
· IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis[4-(2,3-epoxypropoxy)phenyl]propane, reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT
· IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis[4-(2,3-epoxypropoxy)phenyl]propane, reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))

· **14.3 Transport hazard class(es)**
· ADR/RID/ADN
· Class 9 (M6) Miscellaneous dangerous substances and articles.
· Label 9
· IMDG, IATA
· Class 9 Miscellaneous dangerous substances and articles.
· Label 9

· **14.4 Packing group**
· ADR/RID/ADN, IMDG, IATA III

· **14.5 Environmental hazards:** Product contains environmentally hazardous substances: bis[4-(2,3-epoxypropoxy)phenyl]propane
· Marine pollutant: Yes
Symbol (fish and tree)
· Special marking (ADR/RID/ADN): Symbol (fish and tree)
· Special marking (IATA): Symbol (fish and tree)

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· **14.6 Special precautions for user**	Warning: Miscellaneous dangerous substances and articles.
· Hazard identification number (Kemler code):	90
· EMS Number:	F-A,S-F
· Stowage Category	A
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	(-)
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BIS[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, REACTION PRODUCT: BISPHENOL-F-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700)), 9, III

SECTION 15: Regulatory information

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

· Directive 2012/18/EU	
· Named dangerous substances - ANNEX I	None of the ingredients is listed.
· Seveso category	E2 Hazardous to the Aquatic Environment
· Qualifying quantity (tonnes) for the application of lower-tier requirements	200 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements	500 t
· REGULATION (EC) No 1907/2006 ANNEX XVII	Conditions of restriction: 3

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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· Relevant phrases
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.
H412 Harmful to aquatic life with long lasting effects.
EUH205 Contains epoxy constituents. May produce an allergic reaction.

· Classification according to Regulation (EC) No 1272/2008
The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

Skin corrosion/irritation Serious eye damage/irritation Skin sensitisation Hazardous to the aquatic environment - long-term (chronic) aquatic hazard	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· Department issuing SDS: Research and Development
· Contact: Saïda El Asjadi, tel: +31 182 372177, e-mail: safety@de-ijssel-coatings.nl
· Date of previous version: 28.01.2022
· Version number of previous version: 47
· Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
· Sources: Literature data and/or investigation reports are available through the manufacturer.
· * Data compared to the previous version altered.

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 18.07.2023 Version number 32 (replaces version 31) Revision: 18.07.2023

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

· **1.1 Product identifier**

· Trade name: **Variobond hardener**

· Article number: 334
· UFI: S4M4-A00Y-V00M-DH9W
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU19 Building and construction work
· Product category PC9b Fillers, putties, plasters, modelling clay
· Process category PROC19 Manual activities involving hand contact
· Environmental release category ERC5 Use at industrial site leading to inclusion into/onto article
ERC8c Widespread use leading to inclusion into/onto article (indoor)
ERC8f Widespread use leading to inclusion into/onto article (outdoor)
· Article category AC13 Plastic articles
· Application of the substance / the mixture See our technical datasheet for application details of this product.
Epoxy curing agent

· **1.3 Details of the supplier of the safety data sheet**
· Manufacturer/Supplier: De IJssel Coatings BV, Centrumbaan 960, NL 2841 MH Moordrecht
Tel: +31 182 372177, E-mail: info@de-ijssel-coatings.nl

· Further information obtainable from: Research and Development.
· **1.4 Emergency telephone number:** De IJssel Coatings BV, Tel. +31 182 372177, E-mail: safety@de-ijssel-coatings.nl
Office hours: working days from 08:00 to 17:00 hrs.

*
SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· Classification according to Regulation (EC) No 1272/2008


GHS05 corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.


GHS09 environment

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


GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Skin Sens. 1 H317 May cause an allergic skin reaction.

· **2.2 Label elements**
· Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.
· Hazard pictograms


GHS05 GHS07 GHS09

· Signal word Danger

· Hazard-determining components of labelling:
polyoxypropyleendiamine
phenol, styrenated
Reactieproducten van 3-aminomethyl-3,4,4-trimethylcyclohexyl amine en 4,4'-isopropylideendifenol, oligomere reactieproducten met 1-chloor-2,3-epoxypropaan
3,3,5-trimethylhexamethylene-diamine
trimethylhexane-1,6-diamine
2,4,6-tris(dimethylaminomethyl)phenol
· Hazard statements
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
· Precautionary statements P101 If medical advice is needed, have product container or label at hand.

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P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

· Determination of endocrine-disrupting properties		
61788-44-1	phenol, styrenated	List II
69-72-7	Salicylic acid	List II; III

* ***SECTION 3: Composition/information on ingredients***

· **3.2 Mixtures**
· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 9046-10-0 EC number: 618-561-0 Reg.nr.: 01-2119557899-12	polyoxypropyleendiamine Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302	10 – 25%
CAS: 61788-44-1 EINECS: 262-975-0 Reg.nr.: 01-2119980970-27	phenol, styrenated Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	10 – 25%
CAS: 38294-64-3 NLP: 500-101-4 Reg.nr.: 01-2119965165-33	Reactieproducten van 3-aminomethyl-3,4,4-trimethylcyclohexyl amine en 4,4'-isopropylideendifenol, oligomere reactieproducten met 1-chloor-2,3-epoxypropaan Skin Corr. 1A, H314; Eye Dam. 1, H318; Skin Sens. 1, H317; Aquatic Chronic 3, H412	3 – 10%
CAS: 25513-64-8 EINECS: 247-063-2 Reg.nr.: 01-2119560598-25	3,3,5-trimethylhexamethylene-diamine Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1A, H317	3 – 10%
CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Reg.nr.: 01-2119492630-38	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	3 – 10%
CAS: 25513-64-8 EINECS: 247-063-2 Reg.nr.: 01-2119560598-25	3,3,5-trimethylhexamethylene-diamine Skin Corr. 1C, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1, H317; Aquatic Chronic 3, H412	3 – 10%
CAS: 68155-27-1 EINECS: 268-953-7	amines, C12-18-alkyl STOT RE 2, H373; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; STOT SE 3, H335	3 – 10%
CAS: 90-72-2 EINECS: 202-013-9 Index number: 603-069-00-0 Reg.nr.: 01-2119560597-27	2,4,6-tris(dimethylaminomethyl)phenol Skin Corr. 1C, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1B, H317	0.5 – 1%
CAS: 69-72-7 EINECS: 200-712-3 Reg.nr.: 01-2119486984-17	Salicylic acid Repr. 2, H361d; Eye Dam. 1, H318; Acute Tox. 4, H302	0.5 – 1%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

(Contd. on page 3)

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SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· General information: Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing: Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
· **5.2 Special hazards arising from the substance or mixture** During heating or in case of fire poisonous gases are produced.
· **5.3 Advice for firefighters**
· Protective equipment: Mouth respiratory protective device.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
· **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
· **6.4 Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· Information about fire - and explosion protection: Keep respiratory protective device available.

· **7.2 Conditions for safe storage, including any incompatibilities**
· Storage:
· Requirements to be met by storerooms and receptacles: Store material in original, tightly closed containers in a cool, well-ventilated area in accordance with applicable (local) regulations. Depending on total volume stored, the storage area should comply with PGS15.
· Information about storage in one common storage facility: Not required.

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· Further information about storage conditions: Keep container tightly sealed.
· Recommended storage temperature: 5 - 30 □
· **7.3 Specific end use(s)** No further relevant information available.

* ***SECTION 8: Exposure controls/personal protection***

· **8.1 Control parameters**
· Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNEL (Derived No Effect Level) for workers		
61788-44-1 phenol, styrenated		
Dermal	Long-term - systemic effects, worker	3.5 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, worker	7.4 mg/m³ (Worker)
100-51-6 Benzyl alcohol		
Dermal	Long-term - systemic effects, worker	8 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, worker	22 mg/m³ (Worker)
68155-27-1 amines, C12-18-alkyl		
Dermal	Long-term - systemic effects, worker	0.09 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, worker	0.38 mg/m³ (Worker)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
Dermal	Long-term - systemic effects, worker	0.2 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, worker	0.31 mg/m³ (Worker)
69-72-7 Salicylic acid		
Dermal	Long-term - systemic effects, worker	2.3 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, worker	5 mg/m³ (Worker)

· DNEL (Derived No Effect Level) for the general population		
100-51-6 Benzyl alcohol		
Oral	Long-term - systemic effects, general population	4 mg/kg bw/day (General population)
Dermal	Long-term - systemic effects, general population	4 mg/kg bw/day (General population)
Inhalative	Long-term - systemic effects, general population	5.4 mg/m³ (General population)
68155-27-1 amines, C12-18-alkyl		
Oral	Long-term - systemic effects, general population	0.04 mg/kg bw/day (General population)
69-72-7 Salicylic acid		
Oral	Long-term - systemic effects, general population	1 mg/kg bw/day (General population)
Dermal	Long-term - systemic effects, general population	1 mg/kg bw/day (General population)
Inhalative	Long-term - systemic effects, general population	4 mg/m³ (General population)

· PNEC (Predicted No Effect Concentration) values	
61788-44-1 phenol, styrenated	
Aquatic compartment - freshwater	0.03 mg/l (Freshwater)
Aquatic compartment - marine water	0.003 mg/l (Marine water)
100-51-6 Benzyl alcohol	
Aquatic compartment - freshwater	1 mg/l (Freshwater)
Aquatic compartment - marine water	0.1 mg/l (Marine water)
68155-27-1 amines, C12-18-alkyl	
Aquatic compartment - freshwater	0.00026 mg/l (Freshwater)
Aquatic compartment - marine water	0.000026 mg/l (Marine water)
Aquatic compartment - water, intermittent releases	0.0016 mg/l (Intermittent release water)
Aquatic compartment - sediment in freshwater	0.1794 mg/kg sed dw (Sediment freshwater)
Aquatic compartment - sediment in marine water	0.01794 mg/kg sed dw (Sediment marine water)
Terrestrial compartment - soil	10 mg/kg dw (Soil)
Sewage treatment plant	0.55 mg/l (stp)

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Oral secondary poisoning	0.22 mg/kg food (Food sec poisoning)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol	
Aquatic compartment - freshwater	0.084 mg/l (Freshwater)
Aquatic compartment - marine water	0.0084 mg/l (Marine water)
Aquatic compartment - water, intermittent releases	0.84 mg/l (Intermittent release water)
Sewage treatment plant	0.2 mg/l (stp)
69-72-7 Salicylic acid	
Aquatic compartment - freshwater	0.2 mg/l (Freshwater)
Aquatic compartment - marine water	0.02 mg/l (Marine water)

· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· Appropriate engineering controls: No further data; see section 7.
· Individual protection measures, such as personal protective equipment
· General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
· Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
· Hand protection: Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· Material of gloves: Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Recommended thickness of the material: ≥ 0.3 mm
· Penetration time of glove material: The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 16523-1:2015: Level 6).
· For the permanent contact gloves made of the following materials are suitable: Nitrile rubber, NBR
· As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR
· Not suitable are gloves made of the following materials: Leather gloves
Strong material gloves
· Eye/face protection: Tightly sealed goggles

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· General Information

· Physical state	Fluid
· Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	201 °C
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	1.3 Vol %

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· Upper:	13 Vol %
· Flash point:	101 °C (Pensky Martens, ASTM D93)
· Auto-ignition temperature:	460 °C
· Decomposition temperature:	Not determined.
· pH at 20 °C	9.5
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic:	Not determined.
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	0.1 hPa
· Density and/or relative density	
· Density at 20 °C:	1.259 g/cm³ (DIN 51757, ASTM D 1298)
· Relative density	Not determined.
· Vapour density	Not determined.
· **9.2 Other information**	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Organic solvents:	3.9 %
· VOC:	
· VOC (2004/42/EC):	3.93 %
· Solids content:	96.7 %
· Change in condition	
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity**	No further relevant information available.
· **10.2 Chemical stability**	
· Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions**	No dangerous reactions known.
· **10.4 Conditions to avoid**	No further relevant information available.
· **10.5 Incompatible materials:**	No further relevant information available.
· **10.6 Hazardous decomposition products:**	No dangerous decomposition products known.

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SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· Acute toxicity Harmful if swallowed.
· LD/LC50 values relevant for classification:

· Components	Type	Value	Species
ATE (Acute Toxicity Estimates)			
Oral	LD50	1,643 mg/kg	

100-51-6 Benzyl alcohol			
Oral	LD50	1,230 mg/kg (Rat)	
Dermal	LD50	2,000 mg/kg (Rabbit)	
69-72-7 Salicylic acid			
Oral	LD50	891 mg/kg (Rat)	

· Skin corrosion/irritation Causes severe skin burns and eye damage.
· Serious eye damage/irritation Causes serious eye damage.
· Respiratory or 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.
· **11.2 Information on other hazards**

· Endocrine disrupting properties		
61788-44-1	phenol, styrenated	List II
69-72-7	Salicylic acid	List II; III

SECTION 12: Ecological information

· **12.1 Toxicity**
· Aquatic toxicity: No further relevant information available.

· Type of test	Effective concentration	Method	Assessment
ATE (Acute Toxicity Estimates)			
Inhalative	LC50/4 h	280 mg/l	

· **12.2 Persistence and degradability** No further relevant information available.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **12.5 Results of PBT and vPvB assessment**
· PBT: Not applicable.
· vPvB: Not applicable.
· **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
· **12.7 Other adverse effects**
· Remark: Toxic for fish
· Additional ecological information:
· General notes: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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· European waste catalogue	
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
HP6	Acute Toxicity
HP8	Corrosive
HP13	Sensitising
HP14	Ecotoxic

· Uncleaned packaging:
· Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN number or ID number**	
· ADR/RID/ADN, IMDG, IATA	UN2735
· **14.2 UN proper shipping name**	
· ADR/RID/ADN	2735 AMINES, LIQUID, CORROSIVE, N.O.S. (polyoxypropyleendiamine, 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine), ENVIRONMENTALLY HAZARDOUS
· IMDG, IATA	AMINES, LIQUID, CORROSIVE, N.O.S. (polyoxypropyleendiamine, 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
· **14.3 Transport hazard class(es)**	
· ADR/RID/ADN	
· Class	8 (C7) Corrosive substances.
· Label	8
· IMDG, IATA	
· Class	8 Corrosive substances.
· Label	8
· **14.4 Packing group**	
· ADR/RID/ADN, IMDG, IATA	III
· **14.5 Environmental hazards:**	Product contains environmentally hazardous substances: phenol, styrenated
· Marine pollutant:	No
· Special marking (ADR/RID/ADN):	Symbol (fish and tree)
· **14.6 Special precautions for user**	Warning: Corrosive substances.
· Hazard identification number (Kemler code):	80
· EMS Number:	F-A,S-B
· Segregation groups	(SGG18) Alkalis
· Stowage Category	A
· Segregation Code	SG35 Stow "separated from" SGG1-acids
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	E

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· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLEENDIAMINE, 4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE), 8, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

· Directive 2012/18/EU	
· Named dangerous substances - ANNEX I	None of the ingredients is listed.
· Seveso category	E2 Hazardous to the Aquatic Environment
· Qualifying quantity (tonnes) for the application of lower-tier requirements	200 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements	500 t
· REGULATION (EC) No 1907/2006 ANNEX XVII	Conditions of restriction: 3

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· National regulations:

· Technical instructions (air):

Class	Share in %
NK	3.9

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H361d Suspected of damaging the unborn child.

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H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

· Classification according to Regulation (EC) No 1272/2008 The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

Acute toxicity - oral Skin corrosion/irritation Serious eye damage/irritation Skin sensitisation Hazardous to the aquatic environment - long-term (chronic) aquatic hazard	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· Department issuing SDS: Research and Development
· Contact: Saïda El Asjadi, tel: +31 182 372177, e-mail: safety@de-ijssel-coatings.nl
· Date of previous version: 28.01.2022
· Version number of previous version: 31
· Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Skin Sens. 1B: Skin sensitisation – Category 1B
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
· Sources: Literature data and/or investigation reports are available through the manufacturer.
· * Data compared to the previous version altered.