Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

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

· **1.1 Product identifier**

· **Trade name: 2 V 12 VERHARDER**

· **Article number:** 2V12
· **UFI:** DQ1D-51GK-K00W-61GF
· **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
SU19 Building and construction work
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
· **Product category** PC9a Coatings and paints, thinners, paint removers
· **Process category**
PROC7 Industrial spraying
PROC10 Roller application or brushing
PROC19 Manual activities involving hand contact
PROC13 Treatment of articles by dipping and pouring
· **Application of the substance / the mixture** solvent based, two component epoxy coating hardener

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Zandleven Coatings B.V.
Snekertrekweg 57-59, 8912 AA Leeuwarden, Netherlands
Tel: +31 58 2129545 Fax: +31 58 2155996
E-mail: info@zandleven.com Internet: www.zandleven.com

· **Further information obtainable from:** R&D department: sds@zandleven.com
· **1.4 Emergency telephone number:**
Nationaal Vergiftigingen Informatie
+31 (0)88 755 8000
ORFILA (INRS) : + 33 (0)1 45 42 59 59
Centres Antipoison et de Toxicovigilance
ANGERS: 02 41 48 21 21
BORDEAUX: 05 56 96 40 80
LILLE: 0800 59 59 59
LYON: 04 72 11 69 11
MARSEILLE: 04 91 75 25 25
NANCY: 03 83 22 50 50
PARIS: 01 40 05 48 48
STRASBOURG: 03 88 37 37 37
TOULOUSE: 05 61 77 74 47
Giftnotruf der Charité, Berlin: 030/19240
Giftinformationszentrum-Nord der Länder Bremen, Hamburg, Niedersachsen und Schleswig-Holstein (GIZ-Nord) :0551/19 240
Informationszentrale gegen Vergiftungen Zentrum für Kinderheilkunde Universitätsklinikum Bonn: 0228/19240
Giftnotruf Erfurt Gemeinsames Giftinformationszentrum der Länder Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt und Thüringen: 0361/730 730
Informations- und Beratungszentrum für Vergiftungsfälle Klinik für Kinder- und Jugendmedizin Universitätsklinikum des Saarlandes: 06841/19240
Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen - Klinische Toxikologie - Universitätsmedizin der Johannes Gutenberg-Universität Mainz: 06131/19240
Vergiftungs-Informations-Zentrale Zentrum für Kinder- und Jugendmedizin Universitätsklinikum: 0761/19240
Giftnotruf München Toxikologische Abteilung der II. Med. Klinik und Poliklinik: 089/19240
Supplier
+31 (0)58 2677590 (during office hours)

SECTION 2: Hazards identification

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

Acute Tox. 4	H302 Harmful if swallowed.
Acute Tox. 4	H332 Harmful if inhaled.
Skin Corr. 1C	H314 Causes severe skin burns and eye damage.
Eye Dam. 1	H318 Causes serious eye damage.

(Contd. on page 2)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

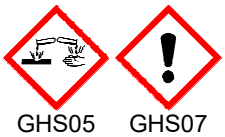
Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 1)

Skin Sens. 1 H317 May cause an allergic skin reaction.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **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

· **Signal word** Danger

· **Hazard-determining components of labelling:**
3-aminomethyl-3,5,5-trimethylcyclohexylamine
Benzyl alcohol
Bisphenol A-epichlorohydrin-isophoronediamine copolymer
· **Hazard statements**
H302+H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
· **Precautionary statements**
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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.

SECTION 3: Composition/information on ingredients

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

· **Dangerous components:**
Percentages of the components are expressed as a percentage by weight

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; Eye Irrit. 2, H319	25-50%
CAS: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32	3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1A, H317 Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	25-50%
	Bisphenol A-epichlorohydrin-isophoronediamine copolymer Skin Corr. 1B, H314; Eye Dam. 1, H318; Skin Sens. 1, H317; Aquatic Chronic 3, H412	25-50%

· **Regulation (EC) No 648/2004 on detergents / Labelling for contents**
perfumes (BENZYL ALCOHOL)

(Contd. on page 3)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 2)

· **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.
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 rinse with water.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** 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.
Dilute with plenty of water.
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.

(Contd. on page 4)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 3)

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Store material in original, well-closed packages in a cool, well-ventilated area according to local regulations.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep container tightly sealed.
· **Recommended storage temperature:** 5 - 30 °C
· **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:**		
100-51-6 Benzyl alcohol		
Dermal	Acute - systemic effects, worker	40 mg/kg bw/day (human)
	Long-term - systemic effects, worker	8 mg/kg bw/day (human)
Inhalative	Acute - systemic effects, worker	110 mg/m³ (human)
	Long-term - systemic effects, worker	22 mg/m³ (human)
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine		
Inhalative	Acute - local effects, worker	0.073 mg/m³ (worker)
	Long-term - local effects, worker	0.073 mg/m³ (worker)
Bisphenol A-epichlorohydrin-isophoronediamine copolymer		
Dermal	Long-term - systemic effects, worker	0.14 mg/kg bw/day (human)
Inhalative	Long-term - systemic effects, worker	0.493 mg/m³ (human)

· **DNEL (Derived No Effect Level) for the general polulation:**		
100-51-6 Benzyl alcohol		
Oral	Acute - systemic effects, general population	20 mg/kg bw/day (human)
	Long-term - systemic effects, general population	4 mg/kg bw/day (human)
Dermal	Acute - systemic effects, general polulation	20 mg/kg bw/day (human)
	Long-term - systemic effects, general population	4 mg/kg bw/day (human)
Inhalative	Acute - systemic effects, general population	27 mg/m³ (human)
	Long-term - systemic effects, general population	5.4 mg/m³ (human)
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine		
Oral	Acute - systemic effects, general population	0.3 mg/kg bw/day (general population)
	Long-term - systemic effects, general population	0.3 mg/kg bw/day (general population)
Bisphenol A-epichlorohydrin-isophoronediamine copolymer		
Oral	Long-term - systemic effects, general population	0.05 mg/kg bw/day (human)
Dermal	Long-term - systemic effects, general population	0.05 mg/kg bw/day (human)
Inhalative	Long-term - systemic effects, general population	0.074 mg/m³ (human)

· **PNEC (Predicted No Effect Concentration) values:**	
100-51-6 Benzyl alcohol	
Aquatic compartment - freshwater	1 mg/L (not specified)
Aquatic compartment - marine water	0.1 mg/L (not specified)
Aquatic compartment - water, intermittent releases	2.3 mg/L (not specified)
Aquatic compartment - sediment in freshwater	5.27 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	0.527 mg/kg sed dw (not specified)
Terrestrial compartment - soil	0.456 mg/kg dw (not specified)
Sewage treatment plant	39 mg/L (sewage treatment plant)

(Contd. on page 5)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 4)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine	
Aquatic compartment - freshwater	0.06 mg/L (freshwater)
Aquatic compartment - marine water	0.006 mg/L (marine water)
Aquatic compartment - water, intermittent releases	0.23 mg/L (intermittent release water)
Aquatic compartment - sediment in freshwater	5.784 mg/kg sed dw (sediment fresh water)
Aquatic compartment - sediment in marine water	0.578 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	1.121 mg/kg dw (soil)
Sewage treatment plant	3.18 mg/L (sewage treatment plant)

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

· **8.2 Exposure controls**
Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne
contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
Provide readily accessible eye wash stations and safety showers.
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.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If
workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed
respirator complying with an approved standard if a risk assessment indicates this is necessary.
For organic vapors and solvents type of filter A1 or A2, for dust type of filter P (according to EN 140)
· **Hand protection**

Protective gloves

Chemical resistant gloves (EN 374)
Check protective gloves prior to each use for their proper condition.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
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.
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
· **Penetration time of glove material**
KCL Vitoject 890
breakthrough time > 480 min.
thickness: 0,7 mm

at limited contact
KCL Camatril 730
breakthrough time 30 min.
thickness: 0,4 mm

(Contd. on page 6)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 5)

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials:** All other materials

· **Eye/face protection**

Tightly sealed goggles

Safety glasses according to EN 166 or equivalent

· **Body protection:**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved before the product is used by a specialist.
If there is a risk of ignition by static electricity, anti-static protective clothing should be worn. For the best protection against static discharge, clothing should consist of anti-static overalls, boots and gloves.
For further information on materials and design requirements and test methods consult the European standard EN 1149.

· **Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Physical state**	Liquid
· **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**	205.4 °C (100-51-6 Benzyl alcohol)
· **Flammability**	Not applicable.
· **Lower and upper explosion limit**	
· **Lower:**	1.3 Vol % (100-51-6 Benzyl alcohol)
· **Upper:**	13 Vol % (100-51-6 Benzyl alcohol)
· **Flash point:**	106 °C (100-51-6 Benzyl alcohol)
· **Auto-ignition temperature:**	380 °C (2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
· **Decomposition temperature:**	Not determined.
· **pH at 20 °C**	10
· **Viscosity:**	
· **Kinematic viscosity**	at 40 °C: > 20,5 mm²/s
· **Dynamic at 20 °C:**	400 mPas
· **Solubility**	
· **water:**	Fully miscible.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure at 20 °C:**	0.1 hPa (100-51-6 Benzyl alcohol)
· **Vapour pressure at 50 °C:**	0.7 hPa
· **Density and/or relative density**	
· **Density at 20 °C:**	1.03 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.

· **9.2 Other information**	
· **Appearance:**	
· **Form:**	Fluid

(Contd. on page 7)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 6)

· **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.
· **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.

SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Harmful if swallowed or if inhaled.

· **LD/LC50 values relevant for classification:**

100-51-6 Benzyl alcohol		
Oral	LD50	1,230 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>4.178 mg/l (rat)
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine		
Oral	LD50	1,030 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

· **Primary irritant effect:**
· **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.

(Contd. on page 8)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 7)

· **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:**	
100-51-6 Benzyl alcohol	
EC50/96 h	640 mg/l (algae)
EC50/72 h	500-770 mg/l (aquatic algae and cyanobacteria)
EC50/48 h	230 mg/l (aquatic invertebrates)
	230-400 mg/l (Daphnia magna)
LC50/96 h	460 mg/l (pimephales promelas)
LC50/48 h	646 mg/l (fish)
NOEC 21 days	51-66 mg/l (aquatic invertebrates)
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine	
LC50/96 h	110 mg/l (Leuciscus idus)

· **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**
The product does not contain substances with endocrine disrupting properties.
· **12.7 Other adverse effects**
· **Remark:** Harmful to fish
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Harmful to 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
HP6	Acute Toxicity
HP8	Corrosive
HP13	Sensitising
HP14	Ecotoxic

(Contd. on page 9)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 8)

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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. (Bisphenol A-epichlorohydrin-isophoronediamine copolymer, ISOPHORONEDIAMINE)
· **IMDG, IATA**	AMINES, LIQUID, CORROSIVE, N.O.S. (Bisphenol A-epichlorohydrin-isophoronediamine copolymer, ISOPHORONEDIAMINE)
· **14.3 Transport hazard class(es)**	
· **ADR/RID/ADN, IMDG, IATA**	

· **Class**	8 Corrosive substances.
· **Label**	8
· **14.4 Packing group**	
· **ADR/RID/ADN, IMDG, IATA**	III
· **14.5 Environmental hazards:**	
· **Marine pollutant:**	No
· **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
· **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

(Contd. on page 10)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 9)

· **UN "Model Regulation":**	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (BISPHENOL A-EPICHLOROHYDRIN-ISOPHORONEDIAMINE COPOLYMER, ISOPHORONEDIAMINE), 8, 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.
· **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.

· **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.
· **Contact:** J. Dijkstra
· **Date of previous version:** 19.04.2023
· **Version number of previous version:** 25
· **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)
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. 1B: Skin corrosion/irritation – Category 1B
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

(Contd. on page 11)

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 06.02.2025 Version: 26 (replaces version 25) Revision: 06.02.2025

Trade name: 2 V 12 VERHARDER

(Contd. of page 10)

Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· **Sources**
- ECHA European Chemical Agency - http://echa.europa.eu/information-on-chemicals
- SDS of raw materials supplied by producer/supplier.

· *** Data compared to the previous version altered.**