FLANGE SEALANT - ANAEROBIC LR-2

SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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VERSION: 1.2

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

1.1. Product identifier

Trade name	Flange Sealant - Anaerobic LR-2
Product code	Ford Internal Ref.: 199752
SDS Number	2996
Product use	For professional users only

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

Relevant identified uses	Adhesives, sealants
Uses advised against	No additional information available.

1.3. Details of the supplier of the safety data sheet

Supplier	**Distributor**
Ford-Werke GmbH	Ford Motor Company Ltd.
Edsel-Ford-Str. 2-14	Parts Distribution Centre
50769 Cologne	Royal Oak Way South
Germany	NN11 8NT Daventry, Northants
+49 221 90-33333	United Kingdom
sdseu@ford.com	+44 1327 305 198

1.4. Emergency telephone number

+49 (0) 6132-84463 (GBK GmbH – 24/7)

2. SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Health hazards	Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
	Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
	Skin sensitisation, Category 1	H317	May cause an allergic skin reaction.
	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard pictograms

Signal word	Warning
Contains	2-hydroxyethyl methacrylate; 2-Phenylacetohydrazide; 3,3,5-trimethylcyclohexyl methacrylate; [2-[(2-methyl-1-oxoallyl)oxy]ethyl] hydrogen succinate

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statements

Prevention

P261	Avoid breathing vapours.
P280	Wear protective gloves.

Response

P302+P352	IF ON SKIN: Wash with plenty of soap and water
P333+P313	If skin irritation or rash occurs: Get medical advice/attention
P337+P313	If eye irritation persists: Get medical advice/attention

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

3. SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS- No EC- No Index No RRN	%	Classification according to Regulation (EC) No. 1272/2008	Notes
3,3,5-trimethylcyclohexyl methacrylate	7779-31-9 231-927-0	10 - 20	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	(10 =<C <= 100) STOT SE 3, H335
2-hydroxyethyl methacrylate	868-77-9 212-782-2 607-124-00-X 01-2119490169-29-XXXX	5 - < 10	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317	(Note D)
acrylic acid	79-10-7 201-177-9 607-061-00-8 01-2119452449-31-XXXX	0,1 - < 1	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	(1 =<C < 100) STOT SE 3, H335 (Note D)
2-Phenylacetohydrazide	114-83-0 204-055-3	0,1 - < 1	Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335	
[2-[(2-methyl-1-oxoallyl)oxy]ethyl] hydrogen succinate	20882-04-6 244-096-4 01-2120137902-58	0,1 - < 1	Eye Dam. 1, H318 Skin Sens. 1, H317	

Chemical name	CAS- No EC- No Index No RRN	%	Classification according to Regulation (EC) No. 1272/2008	Notes
methacrylic acid	79-41-4 201-204-4 607-088-00-5 01-2119463884-26	0,1 - < 1	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335	(1 =<C < 100) STOT SE 3, H335 (Note D)
(R)-p-mentha-1,8-diene	5989-27-5 227-813-5 601-029-00-7	0,1 - < 0,25	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	(Note C)

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note D : Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

Full text of H-statements: see section 16

4. SECTION 4: First aid measures

4.1. Description of first aid measures

General information Call a poison center or a doctor if you feel unwell.

Inhalation Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

Skin contact: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

Eyes contact 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.

Ingestion Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation Inhalation may cause irritation (cough, short breathing, difficulty in breathing).

Symptoms/effects after skin contact irritation (itching, redness, blistering).

Symptoms/effects after eye contact Eye irritation. Conjunctivitis.

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

Treat symptomatically.

5. SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products During fire, gases hazardous to health may be formed. Carbon oxides (CO, CO2). Nitrogen oxides.

5.3. Advice for firefighters

Protection during firefighting Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Other information Cool closed containers exposed to fire with water spray.

6. SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

For emergency responders

Protective equipment Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Take up liquid spill into absorbent material.

Other information Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

7. SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Storage temperature 10 - 25 °C

7.3. Specific end use(s)

Adhesives, sealants.

8. SECTION 8: Exposure controls/personal protection

8.1. Control parameters

EU

Regulation	Substance	Type	Value
COMMISSION DIRECTIVE (EU) 2017/164	**acrylic acid (79-10-7)** Acrylic acid; Prop-2-enoic acid	IOELV TWA	29 mg/m³
		IOELV TWA	10 ppm
		IOELV STEL	59 mg/m³ (10)
		IOELV STEL	20 ppm (10)
		Notes	(10) Grenzwert für die Kurzzeitexposition für einen

EU

Bezugszeitraum von einer Minute.

United Kingdom

Regulation	Substance	Type	Value
	Amorphous silica Silica, amorphous	WEL TWA	6 mg/m³ inhalable dust
		WEL TWA	2.4 mg/m³ respirable dust
EH40. HSE	**methacrylic acid (79-41-4)** Methacrylic acid	WEL TWA	72 mg/m³
		WEL TWA	20 ppm
		WEL STEL	143 mg/m³
		WEL STEL	40 ppm
EH40/2005 (Third edition, 2018). HSE	**acrylic acid (79-10-7)** Acrylic acid (Prop-2-enoic acid)	WEL TWA	29 mg/m³
		WEL TWA	10 ppm
		WEL STEL	59 mg/m³ STEL in relation to a 1-minute reference period
		WEL STEL	20 ppm STEL in relation to a 1-minute reference period

DNEL: Derived no effect level

No data available

Components	Type	Route	Value	Form
2-hydroxyethyl methacrylate (868-77-9)	Worker	Dermal	1.3 mg/kg bw/day	Long-term - systemic effects
		Inhalation	4.9 mg/m³	Long-term - systemic effects
	Consumer	Oral	0.83 mg/kg bodyweight/day	Long-term - systemic effects
		Inhalation	2.9 mg/m³	Long-term - systemic effects
		Dermal	0.83 mg/kg bodyweight/day	Long-term - systemic effects

PNEC: Predicted no effect concentration

No data available

Components	Type	Route	Value	Form
2-hydroxyethyl methacrylate (868-77-9)	Not applicable	Freshwater	0.482 mg/l	
		Seawater	0.482 mg/l	
		sediment	3.79 mg/kg dwt	Freshwater
		sediment	3.79 mg/kg dwt	Seawater
		Soil	0.476 mg/kg dwt	
		STP	10 mg/l	

8.2. Exposure controls

Appropriate engineering controls Ensure good ventilation of the work station

Materials for protective clothing No additional information available.

Individual protection measures, such as personal protective equipment (PPE)

Eye protection Wear security glasses which protect from splashes. EN 166.

Skin protection

Hand protection Chemical resistant gloves (according to European standard NF EN 374 or equivalent). The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other

Material	Permeation	Thickness (mm)	Comments
Viton	6 (> 480 minutes)	0,7 mm	Glove recommendation: Vitoject® 890 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.
In case of splash contact: Viton	6 (> 480 minutes)	0,7 mm	Glove recommendation: Vitoject® 890 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.

Other protective measures	No additional information available.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. If the occupational exposure limit is exceeded: Type A - High-boiling (>65 °C) organic compounds
Skin and body protection	Wear suitable protective clothing
Thermal hazard protection	No additional information available.
Environmental exposure controls	Avoid release to the environment.

9. SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	gel.
Colour	Red.
Odour	mild.
Odour threshold	No data available
pH	Not applicable.
Relative evaporation rate (butylacetate=1)	No data available
Melting point	Not applicable
Freezing point	No data available
Boiling point	> 150 °C
Flash point	> 100 °C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Not applicable
Vapour pressure	< 10 mm Hg @27°C
Vapour pressure at 50 °C	< 300 mbar
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.1 g/cm³
Solubility	No data available
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	< 1100 Pa·s
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

VOC (EU)	< 5 %

10. SECTION 10: Stability and reactivity

10.1. Reactivity The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability Stable under normal conditions.

10.3. Possibility of hazardous reactions No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials Reducing agents. Strong acids. Strong oxidizers.

10.6. Hazardous decomposition products Thermal decomposition generates : Carbon oxides (CO, CO2). Nitrogen oxides. Sulphur oxides. Thermal decomposition can lead to the release of irritating gases and vapours.

11. SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Substance

Name	Method	Type	Exposure route	Value	Unit	Species	Remarks
acrylic acid (79-10-7)		LD50	oral	1500	mg/kg	rat	
		ATE	Inhalation	11	mg/l/4h		vapours
	(OECD 402 method)	LD50	Dermal	> 2000	mg/kg	rabbit	
2-Phenylacetohydrazide (114-83-0)	(acc. CLP 3.1.2)	ATE	oral	50 - < 300	mg/kg		
methacrylic acid (79-41-4)	(OECD 401 method)	LD50	oral	1320	mg/kg bw	rat	
	(OECD 403 method)	LC50	Inhalation	7,1	mg/l/4h	rat	aerosol
		LD50	Dermal	500-1000	mg/kg bw	rabbit	

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 May cause respiratory irritation.

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

12. SECTION 12: Ecological information

12.1. Toxicity

Ecology - general Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute)

Substance / Product	Trophic level	Species	Type	Value	Duration	Remarks
acrylic acid (79-10-7)	Fish	Oncorhynchus mykiss (Rainbow trout)	LC50	27 mg/l	96h	EPA OTS 797.1400
	algae	Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	EC50	0,13 mg/l	72 h	
(R)-p-mentha-1,8-diene (5989-27-5)	Fish	Pimephales promelas	LC50	720 µg/l	96 h	(OECD 203 method)

Hazardous to the aquatic environment, long-term (chronic)

Substance / Product	Trophic level	Species	Type	Value	Duration	Remarks
acrylic acid (79-10-7)	algae	Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	EC50	0,04 mg/l	72 h	
	aquatic invertebrates	Daphnia magna	NOEC	3,8 mg/l	21 d	
(R)-p-mentha-1,8-diene (5989-27-5)	Fish	Pimephales promelas	NOEC	0,059 mg/l	8 d	

12.2. Persistence and degradability

Flange Sealant - Anaerobic LR-2

Persistence and degradability	Not biodegradable.

12.3. Bioaccumulative potential

Flange Sealant - Anaerobic LR-2

Bioaccumulative potential	No data available.

12.4. Mobility in soil

Flange Sealant - Anaerobic LR-2

Ecology - soil	Hardened adhesives are immobile.

12.5. Results of PBT and vPvB assessment

Flange Sealant - Anaerobic LR-2

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

12.6. Other adverse effects

No additional information available.

13. SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Product/Packaging disposal recommendations	Since emptied containers may retain product residue, follow label warnings even after container is emptied. hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
European List of Waste (LoW) code	
	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances
15 01 10*	packaging containing residues of or contaminated by dangerous substances

14. SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

Not regulated for transport

15. SECTION 15: Regulatory information

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

EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006

acrylic acid - (R)-p-mentha-1,8-diene	3(c) 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: Hazard class 4.1
acrylic acid - (R)-p-mentha-1,8-diene	40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.
Flange Sealant - Anaerobic LR-2 - acrylic acid - 2-hydroxyethyl methacrylate - 2-Phenylacetohydrazide - (R)-p-mentha-1,8-diene - 3,3,5-trimethylcyclohexyl methacrylate - methacrylic acid - [2-[(2-methyl-1-oxoallyl)oxy]ethyl] hydrogen succinate	3(b) 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: 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
acrylic acid - 2-hydroxyethyl methacrylate - (R)-p-mentha-1,8-diene - methacrylic acid	3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008
acrylic acid - (R)-p-mentha-1,8-diene	3(a) 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: 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

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC (EU)	< 5 %
Other information, restriction and prohibition regulations	Directive 92/85/EEC on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding as amended. Directive 94/33/EC on the protection of young people at work, as amended is applicable. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended. For details, refer to section 3 and 8.

National regulations

No additional information available.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

16. SECTION 16: Other information

Indication of changes

1.4. Emergency telephone number. Portuguese.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AGW	Occupational exposure limit value
ATE	Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM	Federal Institute for Materials Research and Testing, Germany
BAT	Maximum permissible concentration of biological working substances.
BCF	Bio-concentration factor.

BLV	Biological limit values
BLV	Biological limit values (BGW, Austria)
BMGV	Biological Monitoring Guidance Value (EH40,UK).
BOD5	Biochemical oxygen demand within 5 days
BOD	Biochemical oxygen demand
bw	Body weight.
calcd.	Calculated
CAS	Chemical Abstract Service.
CEN	European Committee for Standardization
CESIO	European Committee on Organic Surfactants and their Intermediates.
COD	Chemical oxygen demand
CLP	Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
CMR	Carcinogenic, Mutagenic or Reproduction Toxic Substances
CSA	Chemical safety assessment
CSR	Chemical Safety Report.
DMEL	Derived Minimum Effect Level.
DNEL	Derived no effect level
EAC	European waste catalogue
EC	European community
EC50	Effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances.
EN	European norm.
ERC	ERC (Environmental Release category)
EU	European Union
GLP	Good Laboratory Practice.
GHS	Globally Harmonized System of Classification and Labeling of Chemicals.
GW/VL	Occupational exposure limit value.
GW-kw/VL-cd	Occupational exposure limit value - short term.
GW-M/VL-M	Occupational exposure limit value – "Ceiling".
IATA	International Air Transport Association
IBC code	International Bulk Chemical (Code) (International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk).
ICAO	International Civil Aviation Organization
IC50	Inhibition Concentration 50%.
IECSC	Inventory of Existing Chemical Substances in China.
IMDG	International Maritime Dangerous Goods
ISO	International Standards Organization.
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal Concentration 50%.
LCLo	Lowest published lethal concentration.
LD50	Lethal Dose 50%.
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest observable effect concentration.
LOEL	Lowest observable effect level.

LQ	Limited quantities
TRK-Kzw	Threshold limit value - Short-term exposure limit / Technical reference concentration - short-time value, Austria.
MAK-Mow	Maximum allowable workplace concentration – instantaneous value, Austria.
MAK-Tmw, TRK-Tmw	Maximum allowable workplace concentration – daily mean value / Technical standard concentration – daily mean value, Austria.
MAK	Threshold limit values Germany.
MARPOL	International Convention for the Prevention of Pollution from Ships.
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
NOEL	no-observed-effect level
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limits
PBT	Persistent Bioaccumulative Toxic
PC (Chemical product category)	PC (Chemical product category)
PNEC	Predicted No-Effect Concentration
POCP	Photochemical ozone creation potential.
POP	Persistent Organic Pollutants
PPE	Personal protective equipment
Process category	Process category
REACH	Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals).
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCL	Specific concentration limit.
STEL	Short-term Exposure Limit
STP	Sewage treatment plant
SU (Sector of use)	SU (Sector of use)
SVHC	Substance of Very High Concern.
TLV	Threshold Limit Value
TRGS	Technical Rules for Hazardous Substances (German Standard).
TWA	Time Weighted Average
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials
VbF	Ordinance on Flammable Liquids, Austria
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
WEL-TWA	Workplace Exposure Limit-Long term exposure limit (8-hour TWA(=time weighted average)reference period).
WEL-STEL	Workplace Exposure Limit-Short term exposure limit (15-minute reference period).
Data sources	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006..

Full text of H- and EUH-statements

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3.
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3.
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4.

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4.
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4.
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1.
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1.
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2.
Asp. Tox. 1	Aspiration hazard, Category 1.
Carc. 2	Carcinogenicity, Category 2.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2.
Flam. Liq. 3	Flammable liquids, Category 3.
Skin Corr. 1A	Skin corrosion/irritation, Category 1A.
Skin Irrit. 2	Skin corrosion/irritation, Category 2.
Skin Sens. 1	Skin sensitisation, Category 1.
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
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.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
STOT SE 3	H335	Calculation method

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.