

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SCAPP Welding SOLAR FLUX Formierpaste Typ B (für legierte Stähle und Edelstähle), Dose zu 450 g

Version number: 2.0 Revision: 2018-11-12 Replaces version of: 2018-11-12 (1) First version: 2018-11-12

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

1.1 Product identifier

Trade name SCAPP Welding SOLAR FLUX Formierpaste Typ

B (für legierte Stähle und Edelstähle), Dose zu

450 g

Registration number (REACH) not relevant (mixture)

CAS number not relevant (mixture)

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

Relevant identified uses Welding powder

1.3 Details of the supplier of the safety data sheet

REHM Schweißtechnik GmbH Telephone: +49 (0)371 481932-0
Annaberger Str. 66-68 Telefax: +49 (0)371 481932-99

09120 Chemnitz e-mail: info@rehm-schweisstechnik.de

Website: www.rehmshop.de

e-mail (competent person) sdb@csb-online.de

Please do not use this e-mail adress to ask for the latest safety data sheet. For this purpose contact REHM Schweißtechnik GmbH.

1.4 Emergency telephone number

Emergency information service +49 (0)371 481932-0

This number is only available during the follow-

ing office hours: Mon-Fri 07:00 - 18:00.

As above or next toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

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4	5	0	g

Classification							
Section	Hazard class	Category	Hazard class and category	Hazard state- ment			
3.6	carcinogenicity	1A	Carc. 1A	H350			
3.9	specific target organ toxicity - repeated expos- ure	1	STOT RE 1	H372			

for full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

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

Signal word danger

Pictograms

GHS08



Hazard statements

H350 May cause cancer.

H372 Causes damage to organs (lung) through prolonged or repeated exposure (if in-

haled).

Precautionary statements

P201 Obtain special instructions before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/interna-

tional regulations.

Supplemental hazard information

EUH032 Contact with acids liberates very toxic gas.

Hazardous ingredients for labelling quartz

silicon dioxide, crystalline

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2.3 Other hazards

There is no additional information.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Hazardous ingredients

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Specific Conc. Limits
quartz	CAS No 14808-60-7	10-<25	Carc. 1A / H350i STOT RE 1 / H372		
	EC No 238-878-4				
manganese dioxide	CAS No 1313-13-9 EC No 215-202-6 Index No 025-001-00-3	5-<10	Acute Tox. 4 / H302 Acute Tox. 4 / H332 STOT RE 2 / H373		
boric acid	CAS No 10043-35-3 EC No 233-139-2 Index No 005-007-00-2 REACH Reg. No 01-2119486683- 25-xxxx	1-<5	Repr. 1B / H360FD		Repr. 1B; H360FD: C ≥ 5.5 %

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Hazardous ingredients								
Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Specific Conc. Limits			
lithium fluoride	CAS No 7789-24-4 EC No 232-152-0	1-<5	Acute Tox. 4 / H302 Eye Irrit. 2 / H319	<u>(!</u>)				
silicon dioxide, crys- talline	CAS No 7631-86-9 EC No 231-545-4	0-<1	Carc. 1 / H350i	&				

The product contains crystalline silicic acids in the form of cristobalite and quartz which, if inhaled, are harmful to health. However, the evaluation of scientific findings is controversial. Recent diagnostic possibilities have provided the certainty that silicosis (pneumoconiosis) is a consequence of heavy exposure to quartz dust. There is also evidence that silicotic people have an increased lung cancer risk.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Self-protection of the first aider.

Remove victim out of the danger area.

Take off immediately all contaminated clothing.

In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.

Following eye contact

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion

Rinse mouth. Do not induce vomiting.

Call a physician in any case.

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Notes for the doctor

none

4.2 Most important symptoms and effects, both acute and delayed

Varying degrees of pulmonary injury.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

use metal fire powder to extinguish

Unsuitable extinguishing media

water

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

Hazardous combustion products

metal oxide smoke, toxic

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Co-ordinate firefighting measures to the fire surroundings.

Do not allow firefighting water to enter drains or water courses.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

chemical protection suit, self-contained breathing apparatus (EN 133)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Follow emergency procedures such as the need to evacuate the danger area or to consult an expert.

Remove persons to safety.

Ventilate affected area.

Avoid contact with skin and eyes.

Do not breathe dust.

Control of dust.

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Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

Warning and evacuating people in the neighbourhood.

6.2 Environmental precautions

Knock down dust with water spray.

Keep away from drains, surface and ground water.

Retain contaminated washing water and dispose of it.

If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

take up mechanically

Advices on how to clean up a spill

Take up mechanically.

Collect spillage.

Other information relating to spills and releases

Place in appropriate containers for disposal.

Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5.

Personal protective equipment: see section 8.

Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Obtain special instructions before use.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Take precautionary measures against static discharge.

Only vacuum cleaners containing no ignition sources may be used for combustible dusts.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

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Specific notes/details

Layers, deposits and heaps of combustible dust must be considered, like any other source which can form a hazardous explosive atmosphere.

Dust deposits may accumulate on all deposition surfaces in a technical room.

Handling of incompatible substances or mixtures

Do not mix with acids.

Do not mix with alkali.

Do not mix with oxidiser

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Wash hands after use.

Preventive skin protection (barrier creams/ointments) is recommended.

Remove contaminated clothing and protective equipment before entering eating areas.

Avoid contact with skin and eyes.

Do not breathe dust.

7.2 Conditions for safe storage, including any incompatibilities

Explosive atmospheres

Only vacuum cleaners containing no ignition sources may be used for combustible dusts.

Flammability hazards

 $\label{thm:continuous} \textbf{Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.}$

Take precautionary measures against static discharge.

Ground/bond container and receiving equipment.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Protect against external exposure, such as

heat

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Store locked up.

Keep container tightly closed and in a well-ventilated place.

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Packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [mg/ m³]	Notation	Source
EU	silica, crystalline	14808-60-7	IOELV	0.1	r	2017/2398/EU
EU	manganese	7439-96-5	IOELV	0.2	i	2017/2398/EU
GB	dust		WEL	10	i	EH40/2005
GB	dust		WEL	4	r	EH40/2005
GB	silica, crystalline	14808-60-7	WEL	0.1	r	EH40/2005
GB	manganese	7439-96-5	WEL	0.5		EH40/2005
GB	silica, amorphous	7631-86-9	WEL	6	i	EH40/2005
GB	silica, amorphous	7631-86-9	WEL	2.4	r	EH40/2005

Notation

i inhalable fractionr respirable fraction

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of

8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshold level	Protection goal, route of expos- ure	Used in	Exposure time
manganese dioxide	1313-13-9	DNEL	0.06 mg/ m³	human, inhalatory	worker (in- dustry)	chronic - sys- temic effects
manganese dioxide	1313-13-9	DNEL	0.004 mg/ kg bw/day	human, dermal	worker (in- dustry)	chronic - sys- temic effects
boric acid	10043-35-3	DNEL	8.3 mg/m ³	human, inhalatory	worker (in- dustry)	chronic - sys- temic effects

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Name of sub- stance	CAS No	End- point	Threshold level	Protection goal, route of expos- ure	Used in	Exposure time
boric acid	10043-35-3	DNEL	392 mg/kg bw/day	human, dermal	worker (in- dustry)	chronic - sys- temic effects
lithium fluoride	7789-24-4	DNEL	10 mg/m³	human, inhalatory	worker (in- dustry)	chronic - sys- temic effects
lithium fluoride	7789-24-4	DNEL	44.8 mg/kg bw/day	human, dermal	worker (in- dustry)	chronic - sys- temic effects
silicon dioxide, crys- talline	7631-86-9	DNEL	4 mg/m³	human, inhalatory	worker (in- dustry)	chronic - sys- temic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Environmental com- partment
manganese dioxide	1313-13-9	PNEC	0 ^{mg} / _l	freshwater
manganese dioxide	1313-13-9	PNEC	0 ^{mg} / _l	marine water
manganese dioxide	1313-13-9	PNEC	100 ^{mg} / _l	sewage treatment plant (STP)
manganese dioxide	1313-13-9	PNEC	0.037 ^{mg} / _{kg}	freshwater sediment
manganese dioxide	1313-13-9	PNEC	0.004 ^{mg} / _{kg}	marine sediment
manganese dioxide	1313-13-9	PNEC	0.028 ^{mg} / _{kg}	soil
boric acid	10043-35-3	PNEC	2.9 ^{mg} / _l	freshwater
boric acid	10043-35-3	PNEC	2.9 ^{mg} / _l	marine water
boric acid	10043-35-3	PNEC	10 ^{mg} / _l	sewage treatment plant (STP)
boric acid	10043-35-3	PNEC	13.7 ^{mg} / _l	water
boric acid	10043-35-3	PNEC	5.7 ^{mg} / _{kg}	soil
lithium fluoride	7789-24-4	PNEC	5.05 ^{mg} / _l	freshwater
lithium fluoride	7789-24-4	PNEC	0.505 ^{mg} / _l	marine water
lithium fluoride	7789-24-4	PNEC	85.78 ^{mg} / _l	sewage treatment plant (STP)
lithium fluoride	7789-24-4	PNEC	25.05 ^{mg} / _{kg}	freshwater sediment
lithium fluoride	7789-24-4	PNEC	2.505 ^{mg} / _{kg}	marine sediment

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Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Environmental com- partment		
lithium fluoride	7789-24-4	PNEC	2.06 ^{mg} / _{kg}	soil		

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Hand protection

Protective gloves					
Material	Material thickness	Breakthrough times of the glove material			
no information available	no information available	no information available			

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Particulate filter device (EN 143).

Environmental exposure controls

Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state solid

Form powder

Colour dark grey

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Odour these information are not available

Odour threshold these information are not available

Other safety parameters

pH (value) these information are not available

Melting point/freezing point these information are not available

Initial boiling point and boiling range 1,682 °C

Flash point not applicable

Evaporation rate these information are not available

Flammability (solid, gas) non-combustible

Explosion limits of dust clouds not determined

Vapour pressure these information are not available

Density 2.2 g/cm³

Vapour density these information are not available

Relative density these information are not available

Solubility(ies)

Water solubility 42 ^{mg}/_{I,} not miscible in any proportion

Partition coefficient

n-octanol/water (log KOW) these information are not available

Auto-ignition temperature not relevant

(Solid matter)

Relative self-ignition temperature for solids these information are not available

Decomposition temperature these information are not available

Viscosity

Kinematic viscosity not relevant

(solid matter)

Dynamic viscosity not relevant

(solid matter)

Explosive properties these information are not available

Oxidising properties shall not be classified as oxidising

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9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

10.4 Conditions to avoid

Take precautionary measures against static discharge.

10.5 Incompatible materials

acids, bases, oxidisers, aluminium, halogen

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

Hydrogen fluoride (HF).

Metallic oxides containing heavy metals.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification procedure

If not otherwise specified the classification is based on:

Ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Acute toxicity estimate (ATE) of components of the mixture Name of substance **CAS No Exposure route** ATE manganese dioxide 1313-13-9 oral 500 ^{mg}/_{ka} manganese dioxide 1313-13-9 inhalation: dust/mist 1.5 ^{mg}/_I/4h 608 ^{mg}/_{kg} lithium fluoride 7789-24-4 oral

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Acute toxicity of components of the mixture								
Name of substance	CAS No	Expos- ure route	End- point	Value	Species	Method	Source	
boric acid	10043-35-3	oral	LD50	3,450 ^{mg} /	rat, male		ECHA	
boric acid	10043-35-3	dermal	LD50	>2,000 ^{mg} / _{kg}	rabbit	FIFRA (40 CFR 163)	ECHA	
boric acid	10043-35-3	inhala- tion: dust/mist	LC50	>2.12 ^{mg} / _I /4h	rat		ECHA	
lithium fluoride	7789-24-4	oral	LD50	608 ^{mg} /	rat		ECHA	
lithium fluoride	7789-24-4	inhala- tion: dust/mist	LC50	>15.57 ^{mg} / _l /4h	rat		ECHA	
lithium fluoride	7789-24-4	dermal	LD50	>2,000 mg/ _{kg}	rat		ECHA	
silicon dioxide, crystalline	7631-86-9	oral	LD50	>5,000 ^{mg} / _{kg}	rat	OECD Guideline 401	ECHA	
silicon dioxide, crystalline	7631-86-9	inhala- tion:	LC50	>58.8 ^{mg} / _I /4h	rat	OECD Guideline	ECHA	

Skin corrosion/irritation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

dust/mist

Serious eye damage/eye irritation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory or skin sensitisation

Skin sensitisation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory sensitisation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

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Germ cell mutagenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

May cause cancer.

Reproductive toxicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Causes damage to organs (lung) through prolonged or repeated exposure (if inhaled).

Specific target organ toxicity - repeated exposure				
Hazard category	Target organ	Exposure route		
1	lung	if inhaled		

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Test data are not available for the complete mixture.

Aquatic toxicity (acute) of components of the mixture

Name of sub- stance	CAS No	Endpoint	Value	Species	Method	Source	Expos- ure time
manganese di- oxide	1313-13-9	EC50	>0.073 ^{mg} / _l	daphnia magna		ECHA	48 h
lithium fluoride	7789-24-4	EC50	132.4 ^{mg} / _l	aquatic inver- tebrates		ECHA	48 h
lithium fluoride	7789-24-4	EC50	112 ^{mg} / _l	algae (Desmod- esmus sub- spicatus)	OECD Guideline 201	ЕСНА	72 h

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Name of sub- stance	CAS No	Endpoint	Value	Species	Method	Source	Expos- ure time
lithium fluoride	7789-24-4	ErC50	>400 ^{mg} / _l	algae (Desmod- esmus sub- spicatus)	OECD Guideline 201	ECHA	72 h
silicon dioxide, crystalline	7631-86-9	EL50	>1,000 ^{mg} / _l	daphnia magna	OECD Guideline 202	ECHA	24 h
silicon dioxide, crystalline	7631-86-9	EL50	>10,000 ^{mg} / _l	algae		ECHA	72 h
silicon dioxide, crystalline	7631-86-9	LL0	10,000 ^{mg} / _l	zebra fish (Danio rerio)	OECD Guideline 203	ЕСНА	96 h

Aquatic toxicity (chronic)

Test data are not available for the complete mixture.

Aquatic toxicity (chronic) of components of the mixture

Name of sub- stance	CAS No	Endpoint	Value	Species	Method	Source	Expos- ure time
lithium fluoride	7789-24-4	NOEC	3.7 ^{mg} / _l	daphnia magna		ECHA	21 d

12.2 Persistence and degradability

Biodegradation

Data are not available.

Persistence

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture

Name of substance	CAS No	Log KOW
boric acid	10043-35-3	-1.09 (pH value: 7.5, 22 °C)

12.4 Mobility in soil

Data are not available.

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12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

Data are not available.

Endocrine disrupting potential

None of the ingredients are listed.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 3

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	UN number	Not subject to transport regulations.
14.2	UN proper shipping name	-
14.3	Transport hazard class(es)	
	Class	-
14.4	Packing group	-
14.5	Environmental hazards	non-environmentally hazardous acc. to the dan- gerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

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14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list none of the ingredients are listed

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

none of the ingredients are listed

Regulation 98/2013/EU on the marketing and use of explosives precursors

none of the ingredients are listed

15.2 Chemical Safety Assessment

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

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SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)		
1.3	Details of the supplier of the safety data sheet: REHM Schweißtechnik GmbH Annaberger Str. 66-98 09120 Chemnitz	Details of the supplier of the safety data sheet: REHM Schweißtechnik GmbH Annaberger Str. 66-68 09120 Chemnitz		
	Telephone: +49 (0)371 481932-0 Telefax: +49 (0)371 481932-99 e-mail: info@rehm-schweisstechnik.de Website: www.rehmshop.de	Telephone: +49 (0)371 481932-0 Telefax: +49 (0)371 481932-99 e-mail: info@rehm-schweisstechnik.de Website: www.rehmshop.de		

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2017/2398/EU	Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the pro- tection of workers from the risks related to exposure to carcinogens or mutagens at work
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-li- cence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam.	Seriously damaging to the eye

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Abbr.	Descriptions of used abbreviations
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Repr.	Reproductive toxicity
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STOT RE	Specific target organ toxicity - repeated exposure
SVHC	Substance of Very High Concern
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

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Classification procedure

Physical and chemical properties.

Health hazards.

Environmental hazards.

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text	
H302	Harmful if swallowed.	
H319	Causes serious eye irritation.	
H332	Harmful if inhaled.	
H350	May cause cancer.	
H350i	May cause cancer by inhalation.	
H360FD	May damage fertility. May damage the unborn child.	
H372	Causes damage to organs (lung) through prolonged or repeated exposure (if inhaled).	
H373	May cause damage to organs (lung) through prolonged or repeated exposure (if inhaled).	

Responsible for the safety data sheet

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Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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