Chemet®
Wir schaffen Verbindungen!

Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

FLISIL-NS-PASTE

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture:
Brazing flux
Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet
CHEMET GmbH
Postfach 1209
56419 Wirges
Deutschland
Tel.: +49 (0) 2602 / 9265-0
Fax: +49 (0) 2602 / 9265-25
info@chemet.de
www.chemet.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number
Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:
+49 (0) 2602 / 9265-0 (Mo. - Fr. 7.00h - 16.00h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Acute Tox.	4	H302-Harmful if swallowed.
Eye Irrit.	2	H319-Causes serious eye irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Repr.	2	H361d-Suspected of damaging the unborn child.

2.2 Label elements
Labeling according to Regulation (EC) 1272/2008 (CLP)

Warning

H302-Harmful if swallowed. H319-Causes serious eye irritation. H315-Causes skin irritation. H361d-Suspected of damaging the unborn child.

P201-Obtain special instructions before use. P280-Wear protective gloves / protective clothing and eye protection / face protection. P308+P313-IF exposed or concerned: Get medical advice / attention.

Potassium bifluoride
Dipotassium tetraborate, tetrahydrate
Potassium difluorodihydroxyborate(1-)

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a.

3.2 Mixtures

Potassium difluorodihydroxyborate(1-)	
Registration number (REACH)	01-2119980037-35-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	286-925-2
CAS	85392-66-1
content %	40-60
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302 Repr. 2, H361d
Specific Concentration Limits and ATE	Repr. 2, H361d: 7,1 %

Dipotassium tetraborate, tetrahydrate	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	215-575-5
CAS	12045-78-2
content %	20-30
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Repr. 2, H361d

Potassium bifluoride	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	---
Index	009-008-00-9
EINECS, ELINCS, NLP, REACH-IT List-No.	232-156-2
CAS	7789-29-9
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 3, H301 Skin Corr. 1B, H314 Eye Dam. 1, H318
Specific Concentration Limits and ATE	Skin Corr. 1B, H314: >=1 % Skin Irrit. 2, H315: >=0,1 % Eye Irrit. 2, H319: >=0,1 %

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!
For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures
First-aiders should ensure they are protected!
Never pour anything into the mouth of an unconscious person!
Inhalation
Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.
Skin contact
Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.
Eye contact
Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.
Ingestion
Rinse the mouth thoroughly with water.
Do not induce vomiting. Consult doctor immediately.
4.2 Most important symptoms and effects, both acute and delayed
If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.
4.3 Indication of any immediate medical attention and special treatment needed
Skin contact:
Calcium gluconate gel
Ingestion:
Dissolve effervescent calcium tablets in water and give to drink in small sips.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Water jet spray/foam/CO2/dry extinguisher
Unsuitable extinguishing media
High volume water jet
5.2 Special hazards arising from the substance or mixture
In case of fire the following can develop:
Hydrofluoric acid
Toxic gases
5.3 Advice for firefighters
For personal protective equipment see Section 8.
In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
6.1.1 For non-emergency personnel
In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.
Ensure sufficient ventilation, remove sources of ignition.
Avoid dust formation with solid or powder products.
Leave the danger zone if possible, use existing emergency plans if necessary.
Keep unprotected persons away.
Ensure sufficient supply of air.
Avoid contact with eyes or skin.
If applicable, caution - risk of slipping.
6.1.2 For emergency responders
See section 8 for suitable protective equipment and material specifications.
6.2 Environmental precautions
If leakage occurs, dam up.
Resolve leaks if this possible without risk.

Prevent from entering drainage system.
Prevent surface and ground-water infiltration, as well as ground penetration.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.
Neutralising is possible (only from a specialist).
Flush residue using copious water.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
Avoid contact with eyes or skin.
Pregnant women should avoid contact with this product.
Handle and open container with care.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
Not to be stored in gangways or stair wells.
Store product closed and only in original packing.
Do not store with alkalis.
Do not store with acids.
Store at room temperature.
Store in a dry place.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Chemical Name	Potassium bifluoride	Content %:0,1-<1
WEL-TWA: 2,5 mg/m3 (fluoride (inorganic,as F) (WEL, EU)	WEL-STEL: ---	---
Monitoring procedures:	- DFG (D) (Fluorwasserstoff und Fluoride), DFG (E) (Hydrogenfluoride and fluorides) - 2005 - NIOSH 7902 (Fluorides, aerosol and gas by ISE) - 1994 - NIOSH 7906 (PARTICULATE FLUORIDES and HYDROFLUORIC ACID by Ion Chromatography) - 2014 - OSHA ID-110 (Fluoride (F^- and HF) in workplace atmospheres) - 1991 - EU project BC/CEN/ENTR/000/2002-16 card 95-5 (2004)	
BMGV: ---		Other information: ---

Potassium difluorodihydroxyborate(1-)						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	2,02	mg/l	
	Environment - marine		PNEC	2,02	mg/l	

	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - soil		PNEC	5,4	mg/kg dw	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	5,11	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	18,4	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	18,4	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	250,39	mg/kg	
Consumer	Human - oral	Long term, systemic effects	DNEL	1,46	mg/kg	
Consumer	Human - oral	Short term, systemic effects	DNEL	1,46	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	10,95	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	18,4	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	18,4	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	500,1	mg/kg	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

8.2 Exposure controls
8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.
Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.
These are specified by e.g. EN 14042.
EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
Use acid resistant protective gloves (EN ISO 374).
If applicable
Protective gloves made of butyl (EN ISO 374).
Protective Neoprene® / polychloroprene gloves (EN ISO 374).
Protective nitrile gloves (EN ISO 374).
Minimum layer thickness in mm:

0,5
Permeation time (penetration time) in minutes:
> 240
The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.
Protective hand cream recommended.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:
If OES or MEL is exceeded.
Filter B (EN 14387), code colour grey
Filter E (EN 14387), code colour yellow
Filter P3 (EN 143), code colour white
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid, Pastelike
Colour:	According to specification
Odour:	Characteristic
Melting point/freezing point:	There is no information available on this parameter.
Boiling point or initial boiling point and boiling range:	There is no information available on this parameter.
Flammability:	Not combustible.
Lower explosion limit:	There is no information available on this parameter.
Upper explosion limit:	There is no information available on this parameter.
Flash point:	n.a.
Auto-ignition temperature:	There is no information available on this parameter.
Decomposition temperature:	There is no information available on this parameter.
pH:	There is no information available on this parameter.
Kinematic viscosity:	1,78 - 5,58 Pas (25°C, ISO 3219, Dynamic viscosity 20 - 100 s-1)
Solubility:	Mixable
Partition coefficient n-octanol/water (log value):	Does not apply to mixtures.
Vapour pressure:	There is no information available on this parameter.
Density and/or relative density:	~ 1,55 g/cm3 (20°C)
Relative vapour density:	There is no information available on this parameter.
Particle characteristics:	Does not apply to liquids.

9.2 Other information

Explosives:	Product is not explosive.
Oxidising liquids:	No

SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
Avoid contact with strong alkalis (exothermic reaction possible).

10.4 Conditions to avoid
None known

10.5 Incompatible materials
Avoid contact with strong alkalis.
Avoid contact with strong oxidizing agents.
Avoid contact with strong acids.

10.6 Hazardous decomposition products
Hydrofluoric acid

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Possibly more information on health effects, see Section 2.1 (classification).

FLISIL-NS-PASTE

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	1206,8	mg/kg			calculated value
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Potassium difluorodihydroxyborate(1-)

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	608	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		Analogous conclusion
Acute toxicity, by inhalation:	LC50	>2,04	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Maximum achievable concentration., Analogous conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative, Analogous conclusion

Germ cell mutagenicity:					(Ames-Test)	Negative, Analogous conclusion
Carcinogenicity:				Mouse	OECD 451 (Carcinogenicity Studies)	Negative, Analogous conclusion
Reproductive toxicity:	LOAEL	250	mg/kg bw/d	Rabbit	OECD 414 (Prenatal Developmental Toxicity Study)	Analogous conclusion
Reproductive toxicity:	NOAEL	125	mg/kg bw/d	Rabbit	OECD 414 (Prenatal Developmental Toxicity Study)	Analogous conclusion
Reproductive toxicity (Developmental toxicity):	LOAEL	55	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Analogous conclusion
Reproductive toxicity (Developmental toxicity):	NOAEL	76	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Analogous conclusion
Reproductive toxicity (Effects on fertility):	LOAEL	143	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Analogous conclusion
Reproductive toxicity (Effects on fertility):	NOAEL	76	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Analogous conclusion
Aspiration hazard:						No
Symptoms:						coughing, mucous membrane irritation, watering eyes
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	128	mg/kg	Rat		

Dipotassium tetraborate, tetrahydrate

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2500	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>2	mg/m3	Rat		
Skin corrosion/irritation:				Rabbit		Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:						Not sensitizising
Symptoms:						abdominal pain, in contact: coughing, vomiting and nausea may occur., breathing difficulties

Potassium bifluoride

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	245	mg/kg	Rat		
Skin corrosion/irritation:						Skin Corr. 1B
Serious eye damage/irritation:						Eye Dam. 1
Respiratory or skin sensitisation:						Not sensitizising
Germ cell mutagenicity:					in vitro	Negative
Germ cell mutagenicity:					in vivo	Negative

Reproductive toxicity:	NOAEL	10-14	mg/kg			
Specific target organ toxicity - repeated exposure (STOT-RE):	LOAEL	50	ppm			
Symptoms:						asthmatic symptoms, abdominal pain, drop in blood pressure, burning of the membranes of the nose and throat, diarrhoea, thirst, disturbed heart rhythm, cornea opacity, coughing, headaches, muscle pains, muscle weakness, pain in the mouth and throat, sweating, nausea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	LOAEL	50	ppm	Mouse		
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	1	ppm	Rat		Target organ(s): respiratory organs, Target organ(s): bones, Target organ(s): teeth

11.2. Information on other hazards

FLISIL-NS-PASTE						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Endocrine disrupting properties:						Does not apply to mixtures.
Other information:						No other relevant information available on adverse effects on health.

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

FLISIL-NS-PASTE							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.

12.6. Endocrine disrupting properties:							Does not apply to mixtures.
12.7. Other adverse effects:							No information available on other adverse effects on the environment.

Potassium difluorodihydroxyborate(1-)

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to daphnia:	LC50	48h	133	mg/l	Daphnia magna		Analogous conclusion
12.1. Toxicity to fish:	NOEC/NOEL	96h	560	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	34d	5,6	mg/l	Brachydanio rerio	OECD 210 (Fish, Early-Life Stage Toxicity Test)	Analogous conclusion
12.1. Toxicity to algae:	EC50	17h	240	mg/l	Pseudomonas putida	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	17h	180	mg/l	Pseudomonas putida	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	72h	25	mg/l	Daphnia magna		Analogous conclusion
Toxicity to annelids:	LC50	7d	651,4	mg/kg	Eisenia foetida		Analogous conclusion
Toxicity to annelids:	LC50	14d	447,6	mg/kg	Eisenia foetida		Analogous conclusion
12.1. Toxicity to fish:	LC50	96h	750	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.3. Bioaccumulative potential:	BCF		5-123				Analogous conclusion
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Dipotassium tetraborate, tetrahydrate

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	280	mg/l	Cyprinus caprio		
12.1. Toxicity to daphnia:	LC50	48h	133	mg/l	Daphnia magna		
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Potassium bifluoride

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	51	mg/l	Salmo gairdneri		Analogous conclusion
12.1. Toxicity to fish:	NOEC/NOEL	21d	4	mg/l	Oncorhynchus mykiss		Analogous conclusion
12.1. Toxicity to daphnia:	EC50	48h	26	mg/l	Daphnia magna		Analogous conclusion
12.1. Toxicity to algae:	EC50	96h	43	mg/l	Scenedesmus subspicatus		Analogous conclusion
12.1. Toxicity to algae:	NOEC/NOEL	7d	50	mg/l			Analogous conclusion

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
11 05 04 spent flux
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
E.g. dispose at suitable refuse site.
E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.
Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

14.1. UN number or ID number:	n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	n.a.
14.4. Packing group:	n.a.
Classification code:	n.a.
LQ:	n.a.
14.5. Environmental hazards:	Not applicable
Tunnel restriction code:	

Transport by sea (IMDG-code)

14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	n.a.
14.4. Packing group:	n.a.
Marine Pollutant:	n.a
14.5. Environmental hazards:	Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	n.a.
14.4. Packing group:	n.a.
14.5. Environmental hazards:	Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

14.7. Maritime transport in bulk according to IMO instruments

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Observe restrictions:
Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!
Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC):	0 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:	1-16

These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Acute Tox. 4, H302	Classification according to calculation procedure.
Eye Irrit. 2, H319	Classification according to calculation procedure.
Skin Irrit. 2, H315	Classification according to calculation procedure.
Repr. 2, H361d	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
H361d Suspected of damaging the unborn child.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Acute Tox. — Acute toxicity - oral
Eye Irrit. — Eye irritation
Skin Irrit. — Skin irritation
Repr. — Reproductive toxicity
Skin Corr. — Skin corrosion
Eye Dam. — Serious eye damage

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.
Guidelines for the preparation of safety data sheets as amended (ECHA).
Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).
Safety data sheets for the constituent substances.
ECHA Homepage - Information about chemicals.
GESTIS Substance Database (Germany).
German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).
EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.
National Lists of Occupational Exposure Limits for each country as amended.
Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ASTM ASTM International (American Society for Testing and Materials)
ATE Acute Toxicity Estimate
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BSEF The International Bromine Council
bw body weight
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)
EC European Community
ECHA European Chemicals Agency
ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ErCx, EμCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)
etc. et cetera
EU European Union
EVAL Ethylene-vinyl alcohol copolymer
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
Koc Adsorption coefficient of organic carbon in the soil
Kow octanol-water partition coefficient
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC (Code) International Bulk Chemical (Code)
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform Chemical Information Database
IUPAC International Union for Pure Applied Chemistry
LC50 Lethal Concentration to 50 % of a test population
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)
Log Koc Logarithm of adsorption coefficient of organic carbon in the soil
Log Kow, Log Pow Logarithm of octanol-water partition coefficient
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute for Occupational Safety and Health (USA)
NLP No-longer-Polymer
NOEC, NOEL No Observed Effect Concentration/Level
OECD Organisation for Economic Co-operation and Development
org. organic
OSHA Occupational Safety and Health Administration (USA)
PBT persistent, bioaccumulative and toxic
PE Polyethylene
PNEC Predicted No Effect Concentration
ppm parts per million
PVC Polyvinylchloride
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SVHC Substances of Very High Concern
Tel. Telephone
TOC Total organic carbon
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:

Chemet®
Wir schaffen Verbindungen!

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90