



WF PRO

Print date 14.12.2022
Revision date 07.10.2022
Version 2.2 (en)
replaces version of 26.10.2017 (2.1)

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

*** 1.1 Product identifier**

Trade name/designation WF PRO
Unique Formula Identifier UFI: QX50-30DG-300J-G7DA
Product category PC-CLN-OTH Other cleaning, care and maintenance products (excludes biocidal products)

Hazard components

Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)], n-butanol, 3-Methylbut-2-en-1-ol

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

Sector of uses [SU]

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3 Industrial uses

Use of the substance/mixture

Ready for use water-free cleaning solution for disassembled and assembled clockwork and for metallic precision parts.

Uses advised against

Do not use for injecting or spraying.

1.3 Details of the supplier of the safety data sheet

Supplier

Elma Schmidbauer GmbH
Gottlieb-Daimler-Str. 17
D-78224 Singen (Htwl.)
Telephone +49 7731 882-0
Telefax +49 7731 882-266
E-mail info@elma-ultrasonic.com
Website www.elma-ultrasonic.com

Department responsible for information:
Chemie/Labor: Email: chemlab@elma-ultrasonic.com

*** 1.4 Emergency telephone number**

Vergiftungs-Informations-Zentrale Freiburg (Sprache/Language: DE, +49 761 19240 EN)

*** SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Flam. Liq. 3, H226	On basis of test data.
Skin Irrit. 2, H315	Calculation method.
Eye Dam. 1, H318	Calculation method.
STOT SE 3, H336	Calculation method.
STOT RE 1, H372	Calculation method.
Asp. Tox. 1, H304	Expert judgement and weight of evidence determination.
Aquatic Chronic 2, H411	Calculation method.

Hazard statements for physical hazards

H226 Flammable liquid and vapour.



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Revision date 07.10.2022
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Hazard statements for health hazards

H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H372 Causes damage to central nervous system through prolonged or repeated exposure.

Hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

* **2.2 Label elements**

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

Hazard components

Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)], n-butanol, 3-Methylbut-2-en-1-ol

Hazard pictograms



GHS02



GHS05



GHS07



GHS08



GHS09

Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H372 Causes damage to central nervous system through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P405 Store locked up.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/eye protection.
P314 Get medical advice/attention if you feel unwell.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
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 doctor.
P332 + P313 If skin irritation occurs: Get medical advice/attention.

* **Other labelling**

Labelling for contents according to regulation (EC) No. 648/2004:
≥ 30% aliphatic hydrocarbons
15 - 30% aromatic hydrocarbons
< 5% soap

* **2.3 Other hazards**

* **Adverse human health effects and symptoms**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

* **Adverse environmental effects**

Aquatic Acute 2 H401: Toxic to aquatic life.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.



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

3.1 Substances

not applicable

*** 3.2 Mixtures**

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
64742-82-1	919-446-0	Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)]	90 - 100 weight-%	Flam. Liq. 3; H226 STOT SE 3; H336 STOT RE 1; H372 Asp. Tox. 1; H304 Aquatic Chronic 2; H411; EUH066	
71-36-3	200-751-6	n-butanol	< 5 weight-%	Flam. Liq. 3; H226 Acute Tox. 4 ; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 STOT SE 3; H336	
556-82-1	209-141-4	3-Methylbut-2-en-1-ol	< 5 weight-%	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318	
68604-33-1	271-685-3	Fatty acids, C14-18 and C16-18-unsatd., ammonium salts	< 5 weight-%	Aquatic Chronic 3; H412	
1336-21-6	215-647-6	ammonia ...%	< 1 weight-%	Met. Corr. 1; H290 Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	STOT SE 3; H335: C>=5% M=1 (Aquatic Acute 1)

REACH No.	Substance name
01-2119458049-33	Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)]
01-2119484630-38	n-butanol
01-2119438442-43	3-Methylbut-2-en-1-ol
01-2120770276-50	Fatty acids, C14-18 and C16-18-unsatd., ammonium salts
01-2119488876-14	ammonia ...%

Additional information

Mixture of aliphatic, isoaliphatic and aromatic hydrocarbons (C9-C12) with additives of soap, ammonia and alkoxy.

*** SECTION 4: First aid measures**

*** 4.1 Description of first aid measures**

*** General information**

Remove contaminated, saturated clothing immediately.
Remove casualty to fresh air and keep warm and at rest.



WF PRO

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Following inhalation

Remove casualty to fresh air and keep warm and at rest.
In the event of symptoms refer for medical treatment.

Following skin contact

After contact with skin, wash immediately with plenty of water and soap.
In case of skin irritation, consult a physician.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion

Do NOT induce vomiting.
Call a physician immediately.
If swallowed seek medical advice immediately and show the doctor packing or label.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Headache
Dizziness
Dizziness

Effects

Risk of the aspiration of the lung.
In case of ingestion risk of pulmonary oedema and pneumonia.

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

* **Notes for the doctor**

If swallowed or in the event of vomiting, risk of entering the lungs.
Subsequent observance for pneumonia and lung oedema.
If swallowed, flush stomach adding activated charcoal.
Keep under medical supervision for at least 48 hours.

* **SECTION 5: Firefighting measures**

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam
Extinguishing powder
Carbon dioxide (CO₂)
Water spray jet

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In the event of fire the following can be released:
Carbon monoxide
Flammable vapor-air-mixture are more heavy than air. Inflammation over far distance is possible.

* **5.3 Advice for firefighters**

* **Special protective equipment for firefighters**

Do not inhale explosion and combustion gases.

* **Additional information**

Fire class
B (Fires of liquids or liquid turning substances).
Use water spray jet to protect personnel and to cool endangered containers.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.



WF PRO

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Revision date 07.10.2022
Version 2.2 (en)
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*** SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Remove all sources of ignition.

For emergency responders

Ensure adequate ventilation.
Remove persons to safety.
Personal protection equipment
Use personal protection.
Remove all sources of ignition.
Use breathing apparatus if exposed to vapours/dust/aerosol.
Pay attention to extension of gas especially at ground (heavier than air) and in direction of the wind.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.
Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

For containment

Send in suitable containers for recovery or disposal.
Suitable material for taking up:
Kieselguhr

*** 6.4 Reference to other sections**

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

*** SECTION 7: Handling and storage**

*** 7.1 Precautions for safe handling**

*

Protective measures

Keep away from sources of ignition - No smoking.
Handle and open container with care.
Avoid:
generation/formation of aerosols
Do not inhale gases/vapours/aerosols.
Use only in well-ventilated areas.
Keep container tightly closed.
Avoid contact with eyes and skin.
Keep limited supplies at workplace.
Vapours are heavier than air.
Provide room air exhaust at ground level.
Suitable container/equipment material:
Material, solvent-resistant
Vapours can form explosive mixtures with air.
Ignitable mixtures can be formed in the empty container.
Take precautionary measures against static discharges.
Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Keep in a cool, well-ventilated place.

Advices on general occupational hygiene

Make available sufficient washing facilities
Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Ensure adequate ventilation of the storage area.
Keep only in unopened original container.



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Storage class
3 Flammable liquids

Materials to avoid
Do not store together with:
Oxidising agent

Further information on storage conditions
Keep locked up and out of reach of children.
Keep locked up.
Store in a place accessible by authorized persons only.
Protect from heat and direct solar radiation.
Do not store at temperature above 25°C (=77°F).
Storage time: 24 months.

7.3 Specific end use(s)

Recommendation
no further

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

*** 8.1 Control parameters**

*** Occupational exposure limit values**

CAS No.	EC No.	Substance name	occupational exposure limit value
71-36-3	200-751-6	Butan-1-ol	20 [ml/m ³ (ppm)] (IE)
71-36-3	200-751-6	Butan-1-ol	Short-term(ml/m ³) 50 Short-term(mg/m ³) 154 (UK)

*** DNEL worker**

CAS No.	Substance name	DNEL value	DNEL type	Remark
64742-82-1	Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2- 25%)]	21 mg/kg bw/day	long-term dermal (systemic)	Assessment factor 24
64742-82-1	Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2- 25%)]	330 mg/m ³	long-term inhalative (systemic)	Assessment factor 6

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
Technical exhaustion if there is a long-term exposition

Personal protection equipment

Eye/face protection
safety goggles

Hand protection
Gloves (solvent-resistant)
Glove material specification [make/type, thickness]: FKM, 0.4mm.
Glove material specification [make/type, thickness]: NBR, 0.35mm.

Respiratory protection
Respiratory protection necessary at:
insufficient exhaust
prolonged exposure
Suitable respiratory protection apparatus:
Multi-purpose filter ABEK



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Environmental exposure controls

Technical measures to prevent exposure

Avoid penetration into the subsoil/soil.
Do not discharge into the drains/surface waters/groundwater.

Additional information

Occupational exposure limits for mixtures of hydrocarbons.

*** SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour

light beige up to light brown

Odour

of ammonia and solvent-like

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			n-butanol: 0.012 - 150 mg/m ³ (0.0039 - 48.7 ppm).
Odour threshold:			3-methylbut-2-en-1-ol: < 100 ppm (< 358 mg/m ³).
Odour threshold:			ammonia: 5ppm (3.5mg/m ³).
Melting point/freezing point	solidifying range < -15 °C		
Boiling point or initial boiling point and boiling range	116- 200 °C		
flammability	solid		not applicable
flammability	gaseous		not applicable
Lower and upper explosion limit	Upper explosion limit approx. 7 Vol-%		
Lower and upper explosion limit	Lower explosion limit 0.6 Vol-%		
Flash point	30- 34 °C		
Auto-ignition temperature	> 200 °C		
Decomposition temperature			not determined
pH	in delivery state		not applicable
Viscosity	approx. 1.2 mm ² /s (20°C)		
Solubility(ies)	Water solubility		~6% are water-soluble.
Partition coefficient n-octanol/water (log value)	approx.3.2- 7		Value of hydrocarbon components.
Vapour pressure	≤ 7 hPa (20°C)		
Density and/or relative density	0.78- 0.8 g/cm ³ (20°C)		
Relative vapour density	> 1		
particle characteristics			not applicable (liquid).



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* **9.2 Other information**

* **Information with regard to physical hazard classes**

* **Explosives**

* **Assessment/classification**

The mixture does not contain any explosive substances (CLP I 2.1.4.3 a).
CLP I 2.1.4.3 a: The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with explosive properties.

* **flammable gases**

* **Assessment/classification**

not applicable (liquid).

* **Aerosols**

* **Assessment/classification**

not relevant - no aerosol.
The classification criteria for this hazard class are not met by definition.

* **Oxidising gas**

* **Assessment/classification**

not applicable (liquid).

* **Gases under pressure**

* **Assessment/classification**

not applicable (liquid, no dissolved gas under pressure).

* **flammable liquids**

* **Assessment/classification**

Flam. Liq. 3 H226: Flash point ≥ 23 °C and ≤ 60 °C.
Flammable liquid and vapour.

* **flammable solids**

* **Assessment/classification**

not applicable (liquid).

* **Self-reactive substances and mixtures**

* **Assessment/classification**

The mixture does not contain any self-reactive substances (CLP I 2.8.4.2 a).
CLP I 2.8.4.2 a: There are no chemical groups present in the molecule associated with explosive or self reactive properties.

* **Pyrophoric liquids**

* **Assessment/classification**

The mixture does not contain any pyrophoric substances - not spontaneously flammable (CLP I 2.9.4.1).
CLP I 2.9.4.1: The classification procedure for pyrophoric liquids need not be applied when experience in manufacture or handling shows that the substance or mixture does not ignite spontaneously on coming into contact with air at normal temperatures (i.e. the substance is known to be stable at room temperature for prolonged periods of time (days)).

* **Pyrophoric solids**

* **Assessment/classification**

not applicable (liquid).

* **self-heating substances and mixtures**

* **Assessment/classification**

The mixture does not contain any self-heating substances.



WF PRO

Print date 14.12.2022
Revision date 07.10.2022
Version 2.2 (en)
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* **Substances or mixtures which, in contact with water, emit flammable gases**

* **Assessment/classification**

not relevant - in contact with water releases no flammable gases (CLP I 2.12.4.1).
CLP I 2.12.4.1: The classification procedure for this class need not be applied if: (a) the chemical structure of the substance or mixture does not contain metals or metalloids; or (b) experience in production or handling shows that the substance or mixture does not react with water, e.g. the substance is manufactured with water or washed with water; or (c) the substance or mixture is known to be soluble in water to form a stable mixture.

* **Oxidising liquids**

* **Assessment/classification**

The mixture does not contain any oxidising substances.

* **Oxidising solids**

* **Assessment/classification**

not applicable (liquid).

* **Organic peroxides**

* **Assessment/classification**

The mixture does not contain any organic peroxides.

* **Corrosive to metals**

Safety characteristics

	Value	Method, Result	Source, Remark
Corrosion rate (mm aluminium/year)	< 6.25 mm/a	Expert judgement and weight of evidence determination.	
Corrosion rate (mm steel/year)	< 6.25 mm/a	Expert judgement and weight of evidence determination.	

* **Assessment/classification**

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

* **Desensitised explosives**

* **Assessment/classification**

The mixture does not contain any desensitised explosive substances.

Other safety characteristics

	Value	Method	Source, Remark
Evaporation rate			Mixture of hydrocarbons: 0.16 (ASTM D3539).
Evaporation rate			n-butanol: 0.44 (ASTM D3539) / 33 (DIN 53170) .
Solvent content	96.1 %		
Explosive properties			Not classified as explosive. Vapours can form an explosive mixture with air.
Oxidising properties			none

* **Other information**

Vapours are heavier than air.



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SECTION 10: Stability and reactivity

10.1 Reactivity

Vapours can form an explosive mixture with air.
No further hazardous reactions known if used as directed.

10.2 Chemical stability

Stable at ambient temperature.

10.3 Possibility of hazardous reactions

Reactions with oxidising agents.

10.4 Conditions to avoid

Heat and direct solar radiation.
Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

10.5 Incompatible materials

Oxidising agent

10.6 Hazardous decomposition products

No decomposition if used as directed.

*** SECTION 11: Toxicological information**

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

*** Acute toxicity**

*** Animal data**

	Effective dose	Method, Evaluation	Source, Remark
Acute oral toxicity	> 5000 mg/kg	ATE: Acute Toxicity Estimate	
	CAS No.71-36-3 n-butanol LD50: 790 mg/kg Species Rat		
	CAS No.556-82-1 3-Methylbut-2-en-1-ol LD50: 1591 mg/kg Species Rat		
	CAS No.1336-21-6 ammonia ...% LD50: 350 mg/kg Species Rat		
Acute dermal toxicity	> 5000 mg/kg	ATE: Acute Toxicity Estimate	
Acute inhalation toxicity	Acute inhalation toxicity (vapour) > 50 mg/L	ATE: Acute Toxicity Estimate	
	CAS No.1336-21-6 ammonia ...% Acute inhalation toxicity (gas) LC50: 11.59 mg/L Species Rat Exposure time 1 h		

*** Assessment/classification**

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



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* **Skin corrosion/irritation**

Animal data

Result / Evaluation	Method	Source, Remark
Irritant.	Calculation method.	

* **Serious eye damage/irritation**

Animal data

Result / Evaluation	Method	Source, Remark
Risk of serious damage to eyes.	Calculation method.	

* **Sensitisation to the respiratory tract**

* **Assessment/classification**
Based on available data, the classification criteria are not met.

* **Skin sensitisation**

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not sensitising.		Calculation method.	

* **Germ cell mutagenicity**

* **Assessment/classification**
Based on available data, the classification criteria are not met.

* **Carcinogenicity**

* **Assessment/classification**
Based on available data, the classification criteria are not met.

* **Reproductive toxicity**

* **Assessment/classification**
Based on available data, the classification criteria are not met.

* **Overall Assessment on CMR properties**

The mixture is not classified as mutagen / not classified as carcinogen / not classified as reproductive toxicant.

* **STOT-single exposure**

* **STOT SE 1 and 2**

* **Assessment/classification**
Based on available data, the classification criteria are not met.

* **STOT SE 3**

* **Irritation to respiratory tract**

* **Assessment/classification**
Based on available data, the classification criteria are not met.

* **Narcotic effects**

* **Assessment/classification**
Narcotic effect: STOT SE 3 H336: May cause drowsiness or dizziness.

* **STOT-repeated exposure**

* **Assessment/classification**
STOT RE 1 H372: Causes damage to central nervous system through prolonged or repeated exposure.



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* **Aspiration hazard**

* **Experimental data**

	Value	Method	Source, Remark
Cinematic viscosity (40°C):	< 20.5 mm ² /s		
Hydrocarbon content (%):	90- 100		

* **Assessment/classification**

Aspiration hazard: Asp. Tox. 1 H304: May be fatal if swallowed and enters airways.

11.2 Information on other hazards

Symptoms related to the physical, chemical and toxicological characteristics

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

* **Other information**

benzene: < 100 ppm.
Has degreasing effect on the skin.

* **SECTION 12: Ecological information**

* **12.1 Toxicity**

* **Aquatic toxicity**

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	LC50: 10.1 mg/L CAS No.68604-33-1 Fatty acids, C14-18 and C16-18-unsatd., ammonium salts LC50: ≥ 21 mg/L Test duration 96 h CAS No.1336-21-6 ammonia ...% LC50: 0.16- 1.1 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 96 h CAS No.64742-82-1 Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)] LL50 10- 30 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 96 h	calculated. OECD 203	
Chronic (long-term) fish toxicity	CAS No.1336-21-6 ammonia ...% LOEC: 0.022 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 73 d		



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Revision date 07.10.2022
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	Effective dose	Method, Evaluation	Source, Remark
Acute (short-term) toxicity to crustacea	CAS No.64742-82-1 Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)] NOELR 0.13 mg/L Test duration 28 h	QSAR	
	NOELR 0.1- 0.2 mg/L	calculated.	
	EC50 10.5 mg/L	calculated.	
Chronic (long-term) toxicity to aquatic invertebrate	CAS No.68604-33-1 Fatty acids, C14-18 and C16-18-unsatd., ammonium salts EC50 \geq 4.2 mg/L		
	CAS No.1336-21-6 ammonia ...% EC50 2.94 mg/L Species Daphnia magna (Big water flea) Test duration 48 h		
	CAS No.64742-82-1 Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)] EL50 10- 22 mg/L Species Daphnia magna (Big water flea) Test duration 48 h	OECD 202	
	CAS No.68604-33-1 Fatty acids, C14-18 and C16-18-unsatd., ammonium salts NOEC 0.11 mg/L Test duration 21 d		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No.1336-21-6 ammonia ...% NOEC 0.79 mg/L Species Daphnia magna (Big water flea) Test duration 96 h		
	CAS No.64742-82-1 Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)] NOELR 0.28 mg/L Species Daphnia magna (Big water flea) Test duration 21 d	OECD 211	
	NOELR approx. 0.3 mg/L	calculated.	
	EC50 4.5 mg/L	calculated.	
	CAS No.68604-33-1 Fatty acids, C14-18 and C16-18-unsatd., ammonium salts EC50 > 44 mg/L Test duration 72 h		
	CAS No.1336-21-6 ammonia ...% EC50 330 mg/L Species Chlorella vulgaris Test duration 5 d		



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 Version 2.2 (en)
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	Effective dose	Method, Evaluation	Source, Remark
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	CAS No.64742-82-1 Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)] EL50 4.1 mg/L Species Pseudokirchneriella subcapitata Test duration 72 h	OECD 201	
	CAS No.68604-33-1 Fatty acids, C14-18 and C16-18-unsatd., ammonium salts NOEC: 20 mg/L Test duration 72 h		
Toxicity to other aquatic plants/organisms	CAS No.64742-82-1 Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)] NOELR: 0.76 mg/L Species Pseudokirchneriella subcapitata Test duration 72 h	OECD 201	
	NOELR: approx. 0.8 mg/L	calculated. calculated.	
Toxicity to microorganisms	not determined		

* **Assessment/classification**

Toxic to aquatic life.
 Toxic to aquatic life with long lasting effects.

* **12.2 Persistence and degradability**

	Value	Method	Source, Remark
Biodegradation			Readily biodegradable (according to OECD criteria).
Biodegradation	Degradation rate 90 %	Activated charcoal adsorption	
Biodegradation	Degradation rate 93 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No.68604-33-1 Fatty acids, C14-18 and C16-18-unsatd., ammonium salts
Biodegradation			CAS No.1336-21-6 ammonia ...% The methods for determining the biological degradability are not applicable to inorganic substances.
Biodegradation	Degradation rate 74.7 % Test duration 28 d	OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	CAS No.64742-82-1 Mixture of hydrocarbons [Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)]
Biodegradation	Degradation rate 98 % Test duration 28 d	OECD 301E/ EEC 92/69/V, C.4-B	CAS No.71-36-3 n-butanol
Biodegradation	Degradation rate 80- 90 % Test duration 28 d	OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	CAS No.556-82-1 3-Methylbut-2-en-1-ol



WF PRO

Print date 14.12.2022
Revision date 07.10.2022
Version 2.2 (en)
replaces version of 26.10.2017 (2.1)

12.3 Bioaccumulative potential

Assessment/classification

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%): Has the potential to bioaccumulate.
n-butanol: Significant accumulation in organisms is not expected (log Pow: 0.88).
3-methylbut-2-en-1-ol: Significant accumulation in organisms is not expected (log Pow: 0.91).
Fatty acids, C14-18 and C16-18-unsatd., ammonium salts: Because of the n-octanol/water partition coefficient accumulation in organisms is possible (log Pow >3).
ammonia: Accumulation in organisms is not expected.

12.4 Mobility in soil

Assessment/classification

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%): Floats on water surface. Is adsorbed by soil and is of low mobility.
n-butanol: Moderately to highly mobile in soil.
3-methylbut-2-en-1-ol: From the water surface the substance is gradually evaporated in the atmosphere. Adsorption on soil is not expected.
Fatty acids, C14-18 and C16-18-unsatd., ammonium salts: strong adsorption on soil, immobile.
ammonia ...%: The ammonium ion will be adsorbed by the soil; very soluble in water.

12.5 Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

12.6 Endocrine disrupting properties

	Effective dose	Method, Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meet the criteria.

12.7 Other adverse effects

	Value	Method	Source, Remark
Ozone depletion potential (ODP):			Based on available data, the classification criteria are not met.

Additional ecotoxicological information

	Value	Method	Source, Remark
AOX			The product does not contain any organically bound halogens according to the recipe.

Additional information

Acute aquatic environmental hazards: Aquatic Acute 2 H401: Toxic to aquatic life.
Chronic aquatic environmental hazards: Aquatic Chronic 2 H411: Toxic to aquatic life with long lasting effects.
Do not allow uncontrolled discharge of product into the environment.
Product is not allowed to be discharged into the ground water or aquatic environment.
No further relevant information available.

*** SECTION 13: Disposal considerations**

*** 13.1 Waste treatment methods**

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
140603 *	other solvents and solvent mixtures

Waste code packaging	Waste name
150110 *	packaging containing residues of or contaminated by hazardous substances



WF PRO

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Revision date 07.10.2022
Version 2.2 (en)
replaces version of 26.10.2017 (2.1)

Appropriate disposal / Product

Do not dispose with household waste. Do not discharge into the drains.
Dispose of waste according to applicable legislation.

*

Appropriate disposal / Package

Completely emptied packages can be recycled.
Non-contaminated packages may be recycled.
Handle contaminated packages in the same way as the substance itself.

Remark

Send to a hazardous waste incinerator facility under observation of official regulations.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	UN 3295	UN 3295	UN 3295
14.2 UN proper shipping name	HYDROCARBONS, LIQUID, N.O.S.	HYDROCARBONS, LIQUID, N.O.S.	Hydrocarbons, liquid, n.o.s.
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	III	III	III
14.5 Environmental hazards	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS Marine pollutant	ENVIRONMENTALLY HAZARDOUS

14.6 Special precautions for user

none

14.7 Maritime transport in bulk according to IMO instruments

not relevant

Land transport (ADR/RID)

UN number or ID number UN 3295
UN proper shipping name HYDROCARBONS, LIQUID, N.O.S.
Transport hazard class(es) 3
Hazard label(s) 3
Classification code F1
Packing group III
Environmental hazards ENVIRONMENTALLY HAZARDOUS
Limited quantity (LQ) 5 L
Special provisions -
Tunnel restriction code D/E

Remark

Environmentally Hazardous: not require labeling according to ADR 3.3 SP 375 for containers up to 5 litre.

Sea transport (IMDG)

UN number or ID number UN 3295
UN proper shipping name HYDROCARBONS, LIQUID, N.O.S.
Transport hazard class(es) 3
Packing group III
Environmental hazards ENVIRONMENTALLY HAZARDOUS



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

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replaces version of 26.10.2017 (2.1)

Limited quantity (LQ) 5 L
Marine pollutant Yes.
EmS F-E, S-D

Remark

Marine pollutant (Environmentally Hazardous): not require labeling according to IMDG-Code, 2.10.2.7 for containers up to 5 litre.

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number UN 3295
UN proper shipping name Hydrocarbons, liquid, n.o.s.
Transport hazard class(es) 3
Packing group III
Environmental hazards ENVIRONMENTALLY HAZARDOUS

Remark

Environmentally Hazardous: not require labeling according to IATA, A197 for containers up to 5 litre.

*** SECTION 15: Regulatory information**

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

*** EU legislation**

Authorisations
not relevant

*** Restrictions on use**
Regulation (EC) No 1907/2006 (REACH), Annex XVII No 3 + 40 - not relevant if used as directed.
Regulation (EC) No 1907/2006 (REACH), Annex XVII No 75 - not relevant if used as directed.

*** Restrictions of occupation**
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations (EU)

To follow:
Regulation (EC) No. 648/2004 (Detergents regulation)
Directive 2012/18/EU, Annex I: P5c + E2.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive] VOC
VOC content, ready-to-use condition 96.1 %
VOC content, delivery state 96.1 %

15.2 Chemical Safety Assessment

*** National regulations**

For this mixture a chemical safety assessment were not carried out.



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*** SECTION 16: Other information**

*** Abbreviations and acronyms**

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

ASTM: American Society for Testing and Materials

ATE: Acute Toxicity Estimate

AVV: Waste Shipment Ordinance (DE)

DGR: Dangerous Goods Regulations (IATA)

DIN: German Institute for Standardization / German Industrial Standard

DNEL: derived no-effect level

EmS: emergency procedures

EL50: Effective Loading 50 %

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization

JArbSchG: Youth Labor Protection Act (DE)

LL50: Lethal Loading 50 %

MuSchRiV: Maternity Protection Guideline Ordinance (DE)

NOELR: No Observed Effect Level

OECD: Organisation for Economic Cooperation and Development

PBT: persistent and bioaccumulative and toxic

QSAR: Quantitative Structure-Activity Relationship

RID: Dangerous goods regulations for transport by rail

SCL: Specific concentration limit

TI: Technical Instruction

TRGS: Technical Rules for Hazardous Substances

VOC: Volatile organic compounds

vPvB: very persistent, very bioaccumulative

Key literature references and sources for data

Own measurements.

European Chemicals Agency, <http://echa.europa.eu/>.

Informations from our suppliers.

Additional information

National and local regulations concerning chemicals shall be observed.

These data are given according to our actual knowledge about this product. This data sheet does not correspond to an assurance by virtue of a contract for properties of the product.

Relevant H- and EUH-phrases (Number and full text)

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.



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Indication of changes

* Data changed compared with the previous version