

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

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

1.1 Product identifier

Trade name **Systemreiniger 048**
Registration number (REACH) Not relevant (mixture)

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

Relevant identified uses Biocide

1.3 Details of the supplier of the safety data sheet

FRIEDRICH SCHARR KG
Liebknechtstraße 50
70565 Stuttgart
Germany

Telephone: +49 711 7868-0
Telefax: +49 711 7868-489
e-mail: info@scharr.de
Website: www.scharr.de

e-mail (competent person) produktsicherheit@scharr.de

1.4 Emergency telephone number

Poison centre			
Country	Name	Postal code/city	Telephone
Germany	Giftinformation Freiburg	79106 Freiburg im Breisgau	+49 (0)761 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Hazard class	Category	Hazard class and category	Hazard statement
acute toxicity (oral)	4	Acute Tox. 4	H302
serious eye damage/eye irritation	1	Eye Dam. 1	H318
hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects
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

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

- pictograms

GHS05, GHS07



- hazard statements

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

- precautionary statements

P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P330 Rinse mouth.
P501 Dispose of contents/container to industrial combustion plant.

- supplemental hazard information

EUH208 Contains 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction.

- hazardous ingredients for labelling

Alcohol, C11, ethoxylated, (ethylenedioxy)dimethanol, Propane-1,2-diol, propoxylated

2.3 Other hazards

This material is combustible, but will not ignite readily.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Wasser demineralisiert - 50 µS	CAS No 7732-18-5 EC No 231-791-2	60 – 75		
Alcohol, C11, ethoxylated	CAS No 127036-24-2 EC No 603-182-5	10 – < 25	Acute Tox. 4 / H302 Eye Dam. 1 / H318	

Safety Data Sheet

acc. to Regulation (EC) No. 1907/2006 (REACH),

amended by 2020/878/EU

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Propane-1,2-diol, propoxylated	CAS No 25322-69-4 EC No 500-039-8 REACH Reg. No 01-2119457556-29- xxxx	5 – < 10	Acute Tox. 4 / H302	
(ethylenedioxy)dimethanol	CAS No 3586-55-8 EC No 222-720-6 REACH Reg. No 01-2120733841-56- xxxx	5 – < 10	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Dam. 1 / H318	
3-iodo-2-propynyl butylcarbamate	CAS No 55406-53-6 EC No 259-627-5 Index No 616-212-00-7 REACH Reg. No 01-2120762115-60- xxxx	0,5 – < 1	Acute Tox. 4 / H302 Acute Tox. 3 / H331 Eye Dam. 1 / H318 Skin Sens. 1 / H317 STOT RE 1 / H372 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	
2,2',2''-nitrilotriethanol	CAS No 102-71-6 EC No 203-049-8 REACH Reg. No 01-2119486482-31- xxxx	0,5 – < 1		

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
Alcohol, C11, ethoxylated	-	-	500 mg/kg	oral
Propane-1,2-diol, propoxylated	-	-	500 mg/kg	oral
(ethylenedioxy)dimethanol	-	-	500 mg/kg	oral
3-iodo-2-propynyl butylcarbamate	-	M-factor (acute) = 10 M-factor (chronic) = 1	1.795 mg/kg 3 mg/l/4h 0,5 mg/l/4h	oral inhalation: vapour inhalation: dust/mist

For full text of abbreviations: see SECTION 16.

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. 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. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Self-protection of the first aider.

Following inhalation

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

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulties. Headache. Vertigo.

4.3 Indication of any immediate medical attention and special treatment needed

Subsequent observance for pneumonia and pulmonary oedema. Supervise the blood circulation.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO₂), Sand

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Danger of bursting container.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO₂)

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.

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area. Avoidance of ignition sources.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Provision of sufficient ventilation.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

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

Recommendations

- measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Shelf-life

Protect against external exposure, such as

frost

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

- Recommended storage temperature 5 – 40 °C
- Lagerklasse (storage class according to TRGS 510, 12 (non-combustible liquids) Germany)

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)								
Country	Name of substance	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
AT	2,2',2''-nitrilotriethanol	102-71-6	MAK	0,8	5	1,6	10	GKV
CH	2,2',2''-nitrilotriethanol	102-71-6	MAK		5		5	SUVA
CH		25265-71-8	MAK		140		280	SUVA
CH	3-iodo-2-propynyl butylcarbamate	55406-53-6	MAK	0,01	0,12	0,02	0,24	SUVA
DE	2,2',2''-nitrilotriethanol	102-71-6	AGW		1		1	TRGS 900
DE	2,2',2''-nitrilotriethanol	102-71-6	MAK		1		1	DFG
DE		25265-71-8	MAK		100		200	DFG
DE		25265-71-8	AGW		100		200	TRGS 900
DE	3-iodo-2-propynyl butylcarbamate	55406-53-6	MAK	0,005	0,058	0,01	0,116	DFG
DE	3-iodo-2-propynyl butylcarbamate	55406-53-6	AGW	0,005	0,058	0,01	0,116	TRGS 900

Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

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)

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Relevant DNELs of components of the mixture						
Name of sub- stance	CAS No	End- point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Propane-1,2-diol, propoxylated	25322-69-4	DNEL	10 mg/m ³	human, inhalat- ory	worker (industry)	chronic - local ef- fects
Propane-1,2-diol, propoxylated	25322-69-4	DNEL	98 mg/m ³	human, inhalat- ory	worker (industry)	chronic - systemic effects
Propane-1,2-diol, propoxylated	25322-69-4	DNEL	13,9 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
(ethylenedioxy)di- methanol	3586-55-8	DNEL	1,45 mg/ m ³	human, inhalat- ory	worker (industry)	chronic - systemic effects
(ethylenedioxy)di- methanol	3586-55-8	DNEL	1,45 mg/ m ³	human, inhalat- ory	worker (industry)	acute - systemic effects
(ethylenedioxy)di- methanol	3586-55-8	DNEL	0,12 mg/ m ³	human, inhalat- ory	worker (industry)	chronic - local ef- fects
(ethylenedioxy)di- methanol	3586-55-8	DNEL	0,12 mg/ m ³	human, inhalat- ory	worker (industry)	acute - local ef- fects
(ethylenedioxy)di- methanol	3586-55-8	DNEL	0,82 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
(ethylenedioxy)di- methanol	3586-55-8	DNEL	0,82 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
3-iodo-2-propynyl butylcarbamate	55406-53-6	DNEL	0,023 mg/ m ³	human, inhalat- ory	worker (industry)	chronic - systemic effects
3-iodo-2-propynyl butylcarbamate	55406-53-6	DNEL	0,07 mg/ m ³	human, inhalat- ory	worker (industry)	acute - systemic effects
3-iodo-2-propynyl butylcarbamate	55406-53-6	DNEL	1,16 mg/ m ³	human, inhalat- ory	worker (industry)	chronic - local ef- fects
3-iodo-2-propynyl butylcarbamate	55406-53-6	DNEL	1,16 mg/ m ³	human, inhalat- ory	worker (industry)	acute - local ef- fects
3-iodo-2-propynyl butylcarbamate	55406-53-6	DNEL	2 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2,2',2''-nitrilotrieth- anol	102-71-6	DNEL	5 mg/m ³	human, inhalat- ory	worker (industry)	chronic - systemic effects
2,2',2''-nitrilotrieth- anol	102-71-6	DNEL	1 mg/m ³	human, inhalat- ory	worker (industry)	chronic - local ef- fects
2,2',2''-nitrilotrieth- anol	102-71-6	DNEL	7,5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2,2',2''-nitrilotrieth- anol	102-71-6	DNEL	140 µg/ cm ²	human, dermal	worker (industry)	chronic - local ef- fects

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Propane-1,2-diol, propoxylated	25322-69-4	PNEC	1 mg/l	aquatic organisms	water	intermittent release
Propane-1,2-diol, propoxylated	25322-69-4	PNEC	0,2 mg/l	aquatic organisms	freshwater	short-term (single instance)
Propane-1,2-diol, propoxylated	25322-69-4	PNEC	0,02 mg/l	aquatic organisms	marine water	short-term (single instance)
Propane-1,2-diol, propoxylated	25322-69-4	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Propane-1,2-diol, propoxylated	25322-69-4	PNEC	0,419 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Propane-1,2-diol, propoxylated	25322-69-4	PNEC	0,042 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Propane-1,2-diol, propoxylated	25322-69-4	PNEC	0,031 mg/kg	terrestrial organisms	soil	short-term (single instance)
(ethylenedioxy)dimethanol	3586-55-8	PNEC	0,49 mg/l	aquatic organisms	freshwater	short-term (single instance)
(ethylenedioxy)dimethanol	3586-55-8	PNEC	0,049 mg/l	aquatic organisms	marine water	short-term (single instance)
(ethylenedioxy)dimethanol	3586-55-8	PNEC	1,7 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
(ethylenedioxy)dimethanol	3586-55-8	PNEC	2,54 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
(ethylenedioxy)dimethanol	3586-55-8	PNEC	0,254 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
(ethylenedioxy)dimethanol	3586-55-8	PNEC	0,22 mg/kg	terrestrial organisms	soil	short-term (single instance)
3-iodo-2-propynyl butylcarbamate	55406-53-6	PNEC	0,001 mg/l	aquatic organisms	freshwater	short-term (single instance)
3-iodo-2-propynyl butylcarbamate	55406-53-6	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
3-iodo-2-propynyl butylcarbamate	55406-53-6	PNEC	0,44 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
3-iodo-2-propynyl butylcarbamate	55406-53-6	PNEC	0,017 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
3-iodo-2-propynyl butylcarbamate	55406-53-6	PNEC	0,002 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
3-iodo-2-propynyl butylcarbamate	55406-53-6	PNEC	0,005 mg/kg	terrestrial organisms	soil	short-term (single instance)
2,2',2''-nitrilotriethanol	102-71-6	PNEC	0,32 mg/l	aquatic organisms	freshwater	short-term (single instance)
2,2',2''-nitrilotriethanol	102-71-6	PNEC	0,032 mg/l	aquatic organisms	marine water	short-term (single instance)

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
2,2',2''-nitrilotriethanol	102-71-6	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2,2',2''-nitrilotriethanol	102-71-6	PNEC	1,7 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2,2',2''-nitrilotriethanol	102-71-6	PNEC	0,17 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2,2',2''-nitrilotriethanol	102-71-6	PNEC	0,151 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- hand protection

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. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- type of material

PE: polyethylene, CR: chloroprene (chlorobutadiene) rubber, IIR: isobutene-isoprene (butyl) rubber

- material thickness

> 0,35 mm

- breakthrough times of the glove material

0,4 mm

>120 minutes (permeation: level 4)

- other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

[In case of inadequate ventilation] wear respiratory protection. Type: AX (gas filters and combined filters against low-boiling point organic compounds, colour code: Brown).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	yellow
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	100 °C at 1.013 hPa
Evaporation rate	not determined
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	not determined
Flash point	85 °C at 101,3 kPa
Auto-ignition temperature	305 °C
pH (value)	9,4 (in aqueous solution: 50 g/l, 23 °C)
Kinematic viscosity	22 mm ² /s at 20 °C (DIN 51562)

Solubility(ies)

Water solubility	miscible in any proportion
------------------	----------------------------

Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available
---	-----------------------------------

Vapour pressure	0,001 hPa at 20 °C
-----------------	--------------------

Density and/or relative density

Density	1,05 g/cm ³ at 20 °C
---------	---------------------------------

Particle characteristics	not relevant (liquid)
--------------------------	-----------------------

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
--	--

Other safety characteristics

Miscibility	Completely miscible with water.
Solid content	0,5 %
Temperature class (EU, acc. to ATEX)	T2 (maximum permissible surface temperature on the equipment: 300°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidisers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

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

Test data are not available for the complete mixture.

Classification procedure

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

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

Acute toxicity

Harmful if swallowed.

- acute toxicity estimate (ATE)

Oral 1.613 mg/kg

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Alcohol, C11, ethoxylated	127036-24-2	oral	500 mg/kg
Propane-1,2-diol, propoxylated	25322-69-4	oral	500 mg/kg
(ethylenedioxy)dimethanol	3586-55-8	oral	500 mg/kg
3-iodo-2-propynyl butylcarbamate	55406-53-6	oral	1.795 mg/kg
3-iodo-2-propynyl butylcarbamate	55406-53-6	inhalation: vapour	3 mg/l/4h
3-iodo-2-propynyl butylcarbamate	55406-53-6	inhalation: dust/mist	0,5 mg/l/4h

Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Propane-1,2-diol, propoxylated	25322-69-4	oral	LD50	>5.000 mg/kg	rat
Propane-1,2-diol, propoxylated	25322-69-4	dermal	LD50	>3.000 mg/kg	rabbit
(ethylenedioxy)dimethanol	3586-55-8	oral	LD50	≥200 – ≤2.000 mg/kg	rat
3-iodo-2-propynyl butylcarbamate	55406-53-6	oral	LD50	1.795 mg/kg	rat
3-iodo-2-propynyl butylcarbamate	55406-53-6	dermal	LD50	>2.000 mg/kg	rabbit
2,2',2''-nitrilotriethanol	102-71-6	dermal	LD50	>2.000 mg/kg	rabbit
2,2',2''-nitrilotriethanol	102-71-6	oral	LD50	6.400 mg/kg	rat

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Contains 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Acc. to 1272/2008/EC: Harmful to aquatic life with long lasting effects.
Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK 3, highly hazardous to water (Germany)

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Propane-1,2-diol, propoxylated	25322-69-4	LC50	>100 mg/l	fish	96 h
Propane-1,2-diol, propoxylated	25322-69-4	EC50	105,8 mg/l	aquatic invertebrates	48 h
Propane-1,2-diol, propoxylated	25322-69-4	ErC50	>100 mg/l	algae	72 h
(ethylenedioxy)dimethanol	3586-55-8	LC50	71 mg/l	fish	96 h
(ethylenedioxy)dimethanol	3586-55-8	EC50	28 mg/l	aquatic invertebrates	48 h
(ethylenedioxy)dimethanol	3586-55-8	ErC50	4,62 mg/l	algae	72 h
3-iodo-2-propynyl butylcarbamate	55406-53-6	LC50	0,24 mg/l	aquatic invertebrates	24 h
3-iodo-2-propynyl butylcarbamate	55406-53-6	EC50	22 µg/l	algae	72 h
3-iodo-2-propynyl butylcarbamate	55406-53-6	ErC50	53 µg/l	algae	72 h
2,2',2''-nitrilotriethanol	102-71-6	LC50	11.800 mg/l	fish	96 h
2,2',2''-nitrilotriethanol	102-71-6	EC50	609,9 mg/l	aquatic invertebrates	48 h
2,2',2''-nitrilotriethanol	102-71-6	ErC50	512 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Propane-1,2-diol, propoxylated	25322-69-4	EC50	>1.000 mg/l	microorganisms	3 h
(ethylenedioxy)dimethanol	3586-55-8	EC50	28 mg/l	aquatic invertebrates	24 d

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
3-iodo-2-propynyl butylcarbamate	55406-53-6	ErC50	0,1 mg/l	algae	120 h
3-iodo-2-propynyl butylcarbamate	55406-53-6	EC50	44 mg/l	microorganisms	3 h

12.2 Persistence and degradability

Biodegradation

Data are not available.

Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
(ethylenedioxy) dimethanol	3586-55-8	DOC removal	100 %	5 d		ECHA
3-iodo-2-propynyl butylcarbamate	55406-53-6	carbon dioxide generation	4 %	1 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Propane-1,2-diol, propoxylated	25322-69-4		≥-0,68 – ≤0,01 (pH value: >12, 25 °C)	
3-iodo-2-propynyl butylcarbamate	55406-53-6		2,81 (25 °C)	
2,2',2''-nitrilotriethanol	102-71-6	<0,4		

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

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

Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

- | | | |
|------|---|---|
| 14.1 | UN number or ID number | not subject to transport regulations |
| 14.2 | UN proper shipping name | not relevant |
| 14.3 | Transport hazard class(es) | none |
| 14.4 | Packing group | not assigned |
| 14.5 | Environmental hazards | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 | Special precautions for user | There is no additional information. |
| 14.7 | Maritime transport in bulk according to IMO instruments | The cargo is not intended to be carried in bulk. |

Information for each of the UN Model Regulations

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

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG) - additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - additional information

Not subject to ICAO-IATA.

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

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)

Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)		
Name of substance	Name acc. to inventory	Restriction
Systemreiniger 048	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC	R3
3-iodo-2-propynyl butylcarbamate	substances in tattoo inks and permanent make-up	R75
(ethylenedioxy)dimethanol	substances in tattoo inks and permanent make-up	R75
Alcohol, C11, ethoxylated	substances in tattoo inks and permanent make-up	R75

Legend

R3

- Shall not be used in:
 - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
 - tricks and jokes,
 - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
- Articles not complying with paragraph 1 shall not be placed on the market.
- Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
 - can be used as fuel in decorative oil lamps for supply to the general public, and
 - present an aspiration hazard and are labelled with H304.
- Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
- Without prejudice to the implementation of other Union provisions relating to the classification, labelling and packaging of substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
 - lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil – or even sucking the wick of lamps – may lead to life-threatening lung damage";
 - grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter fluid may lead to life threatening lung damage';
 - lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.;

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Legend**R75**

1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:

- (a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
- (b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
- (c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitizer category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
- (d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
 - (i) 0,1 % by weight, if the substance is used solely as a pH regulator;
 - (ii) 0,01 % by weight, in all other cases;
- (e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
- (f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
 - (i) "Rinse-off products";
 - (ii) "Not to be used in products applied on mucous membranes";
 - (iii) "Not to be used in eye products";
- (g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
- (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.

2. For the purposes of this entry use of a mixture "for tattooing purposes" means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.

3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.

4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:

- (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
- (b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).

5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.

6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.

7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:

- (a) the statement "Mixture for use in tattoos or permanent make-up";
- (b) a reference number to uniquely identify the batch;
- (c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
- (d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
- (e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
- (f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
- (g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.

The information shall be clearly visible, easily legible and marked in a way that is indelible.

The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.

Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use.

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Legend

Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.

8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

none of the ingredients are listed

Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
	not assigned		

Industrial Emissions Directive (IED)

VOC content	6,5 %
-------------	-------

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Water Framework Directive (WFD)

none of the ingredients are listed

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

National regulations (Austria)

Ordinance on combustible liquids (VbF) not assigned (flash point higher than 55 °C, water miscible)

National regulations (Germany)

Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)

Wassergefährdungsklasse, WGK 3 highly hazardous to water
(water hazard class)

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Technical instructions on air quality control (Germany)

Number	Group of substances	Class	Conc.	Mass flow	Mass concentration	Notation
5.2.5	organic substances		≥ 25 wt%	0,5 kg/h	50 mg/m ³	3)

Notation

3) a total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m³, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

National regulations Switzerland

Ordinance on the incentive tax on volatile organic compounds (VOCV)

The product is exempt from the tax. Product in which the VOC content does not exceed 3 per cent (% by weight).

National inventories

Country	Inventory	Status
AU	AIIC	all ingredients are listed
CA	DSL	not all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	not all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	not all ingredients are listed

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
2.3	Other hazards: of no significance	Other hazards: This material is combustible, but will not ignite readily.
3.2		Description of the mixture: change in the listing (table)
3.2		Description of the mixture: change in the listing (table)
8.1		Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)
8.1		Relevant DNELs of components of the mixture: change in the listing (table)
8.1		Relevant PNECs of components of the mixture: change in the listing (table)
8.2	Type of material: NBR: acrylonitrile-butadiene rubber	Type of material: PE: polyethylene, CR: chloroprene (chlorobutadiene) rubber, IIR: isobutene-isoprene (butyl) rubber
8.2	Protective gloves Splash protection	
8.2	Type of material: NBR: acrylonitrile-butadiene rubber	
8.2		Material thickness: > 0,35 mm
8.2		Breakthrough times of the glove material: 0,4 mm >120 minutes (permeation: level 4)
8.2	Respiratory protection: In case of inadequate ventilation wear respiratory protection.	Respiratory protection: [In case of inadequate ventilation] wear respiratory protection. Type: AX (gas filters and combined filters against low-boiling point organic compounds, colour code: Brown).
11.1		- acute toxicity estimate (ATE): change in the listing (table)
11.1		Acute toxicity estimate (ATE) of components of the mixture: change in the listing (table)
11.1		Acute toxicity of components of the mixture: change in the listing (table)
12.1	Toxicity: Acc. to 1272/2008/EC: Harmful to aquatic life with long lasting effects. Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK 2, obviously hazardous to water (Germany)	Toxicity: Acc. to 1272/2008/EC: Harmful to aquatic life with long lasting effects. Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK 3, highly hazardous to water (Germany)

Safety Data Sheet

acc. to Regulation (EC) No. 1907/2006 (REACH),
amended by 2020/878/EU

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Section	Former entry (text/value)	Actual entry (text/value)
12.1		Aquatic toxicity (acute) of components of the mixture: change in the listing (table)
12.1		Aquatic toxicity (chronic) of components of the mixture: change in the listing (table)
12.3		Bioaccumulative potential of components of the mixture: change in the listing (table)
15.1	Wassergefährdungsklasse, WGK (water hazard class): 2 obviously hazardous to water	Wassergefährdungsklasse, WGK (water hazard class): 3 highly hazardous to water

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
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 relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
AGW	Workplace exposure limit
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
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
COD	Chemical oxygen demand
DFG	Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
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)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control

Systemreiniger 048

Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Abbr.	Descriptions of used abbreviations
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
GKV	Grenzwerteverordnung
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
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
SUVA	Grenzwerte am Arbeitsplatz, Suva
SVHC	Substance of Very High Concern
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
TRGS 900	Arbeitsplatzgrenzwerte (TRGS 900)
TWA	Time-weighted average
VOC	Volatile Organic Compounds

Systemreiniger 048Version number: 2.0
Replaces version of: 08.07.2021 (1)

Revision: 03.02.2023

Abbr.	Descriptions of used abbreviations
vPvB	Very Persistent and very Bioaccumulative

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 2020/878/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).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

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 section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Disclaimer

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