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

1.1. Product identifier

Name of product Flume Technik TE: Edelmetall - Tauchbad

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

Identified uses

Sector of uses [SU]

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

SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Uses advised against

Remark

Do not use for injecting or spraying.

Recommended intended purpose(s)

Aqueous jewellery cleaner.

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor

Rudolf Flume Technik GmbH
Hachestraße 66, D-45127 Essen
Phone +49 (0)201 1899-0, Fax +49 (0)201 1899-100
E-Mail info@flume.de
Internet www.flume.de

Advice

Herr Rolandus: f.rolandus@flume.de
Phone +49 (0)201 1899-0
Fax +49 (0)201 1899-100

1.4. Emergency telephone number

Emergency advice

Herr Rolandus
Phone +49 (0)201 1899-0
This number is only available at office times.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Met. Corr. 1	H290	On basis of test data.
Eye Irrit. 2	H319	Calculation method.
Skin Sens. 1	H317	Calculation method.
Carc. 2	H351	Calculation method.
Repr. 2	H361d	Calculation method.
Aquatic Chronic 3	H412	Calculation method.

Hazard Statements

H290	May be corrosive to metals.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.

H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

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



GHS05



GHS07



GHS08

Signal word

Warning

Hazard Statements

H290 May be corrosive to metals.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

P102 Keep out of reach of children.
P201 Obtain special instructions before use.
P234 Keep only in original packaging.
P261 Avoid breathing mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.

Hazardous ingredients for labeling

thiourea

2.3. Other hazards

Skin Irrit. 3 H316: Causes mild skin irritation.

Aquatic Acute 3 H402: Harmful to aquatic life.

Results of PBT and vPvB assessment

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

SECTION 3: Composition/ information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Description

Aqueous and acid mixture with nonionic tensides, complexing agent and co-solvent.

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
7664-38-2	231-633-2	phosphoric acid ...%	< 5	Met. Corr. 1, H290 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Eye Dam. 1, H318
67-63-0	200-661-7	propan-2-ol	< 10	Flam. Liq. 2, H225 / Eye Irrit. 2, H319 / STOT SE 3, H336
62-56-6	200-543-5	thiourea	5 - 10	Carc. 2, H351 / Repr. 2, H361d / Acute Tox. 4, H302 / Skin Sens. 1, H317 / Aquatic Chronic 2, H411

REACH

CAS No	Name	REACH registration number
7664-38-2	phosphoric acid ...%	01-2119485924-24
67-63-0	propan-2-ol	01-2119457558-25
62-56-6	thiourea	Not yet available from supplier.

Additional advice

Ingredients according to Annex VII, A, EC-Regulation 648/2004 (detergents): <5% non-ionic surfactants, <5% phosphoric acid, perfumes.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.

In case of inhalation

In case of inhalation of mist seek medical advice.

In case of skin contact

In case of contact with skin wash off immediately with soap and water.

Consult a doctor if skin irritation persists.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Do not induce vomiting.

Refer to medical treatment.

If swallowed seek medical advice immediately and show the doctor packing or label.

Rinse out mouth and give plenty of water to drink.

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

Physician's information / possible dangers

Risk of the aspiration of the lung.

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

Treatment (Advice to doctor)

No further informations available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam

Dry powder

Carbon dioxide

Water spray jet

Unsuitable extinguishing media

no

5.2. Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolyse products.

In the event of fire the following can be released:

Nitrogen gases (NO_x)

Carbon monoxide (CO)

Phosphorus oxides (e.g. phosphoruspentoxide)

Sulfur oxide

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Do not inhale explosion and/or combustion gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Use personal protection.

High risk of slipping due to leakage/spillage of product.

For emergency responders

Use personal protective clothing.

Use personal protection.

Use breathing apparatus if exposed to vapours/dust/aerosol.

Forms slippery surfaces with water.

High risk of slipping due to leakage/spillage of product.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).

Flush away residues with water.

After taking up the material dispose according to regulation.

6.4. Reference to other sections

Informations for safe handling see chapter 7.

Informations for personal protective equipment see chapter 8.

Informations for disposal see chapter 13.

! SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Open and handle container with care!

General protective measures

Avoid contact with eyes and skin

Do not inhale aerosols

Hygiene measures

Provide washing facilities at place of work.

Keep away from food and drink.

Wash hands before breaks and after work.

Advice on protection against fire and explosion

The product is not combustible.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide acid-resistant floor.

Keep only in original container.

Advice on storage compatibility

Do not store with alkalies.

! Further information on storage conditions

Keep barrel tightly closed.

Keep locked up, out of reach of children

Protect from heat and direct solar radiation.

Keep under lock and key or accessible only to specialists or people authorized by them.

Do not keep at temperatures below 5 °C.

Do not keep at temperatures above 30 °C.

! Information on storage stability

Storage time: 4 years.

7.3. Specific end use(s)

Recommendation(s) for intended use

See section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL-/PNEC-values

DNEL worker

CAS No	Substance name	Value	Code	Remark
67-63-0	propan-2-ol	888 mg/kg bw/day	DNEL long-term dermal (systemic)	
		500 mg/m3	DNEL long-term inhalative (systemic)	
7664-38-2	phosphoric acid ...%	1 mg/m3	DNEL long-term inhalative (local)	

PNEC

CAS No	Substance name	Value	Code	Remark
7664-38-2	phosphoric acid ...%			No data available

Additional advice

8.2. Exposure controls

Hand protection

Gloves (acid-resistant)

Glove material specification [make/type, thickness, permeation time/life]: Butyl, 0,5mm, >=8h.

Glove material specification [make/type, thickness, permeation time/life]: NBR, 0,35mm, >=8h.

Glove material specification [make/type, thickness, permeation time/life]: FKM, 0,4mm, >=8h.

Eye protection

tightly fitting goggles

Other protection measures

Light protective clothing.

Limitation and surveillance of the environment

Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

Avoid penetration into the subsoil/soil.

Do not discharge into surface waters.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

transparent

Odour

of isopropanol

Odour threshold

propan-2-ol: 2.5 - 490 mg/m³ (1 - 196 ppm).

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	1,2	20 °C			
starts to boil	>= 78 °C				
solidifying range	not determined				
Flash point	ca. 40 °C			DIN 51755	Does not maintain the combustion.
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	425 °C				Value of propan-2-ol.
Self ignition temperature					not spontaneously flammable
Lower explosion limit	2 Vol-%				Value of propan-2-ol.

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

Printed 16.07.2019

Revision 01.07.2019 (GB) Version 1.6

Flume Technik TE: Edelmetall - Tauchbad

	Value	Temperature	at	Method	Remark
Upper explosion limit	ca. 12 Vol-%				Value of propan-2-ol.
Vapour pressure	ca. 31 hPa	20 °C			
Relative density	1,022 g/cm ³	20 °C			
Vapour density	2,07				Value of propan-2-ol.
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	0,05	20 °C			Value of propan-2-ol.
Decomposition temperature	> 78 °C				
Viscosity	not determined				
Solvent content	< 10 Gew-%				
Vapourisation rate	propan-2-ol: 1.5 (ASTM D3539) / 11 (DIN 53170) . Water: 0.36 (ASTM D3539).				
Oxidising properties	no				
Explosive properties	no				
9.2. Other information	No further relevant informations available.				

SECTION 10: Stability and reactivity

10.1. Reactivity

No 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.

Reactions with strong alkalis.

10.4. Conditions to avoid

Heat and direct solar radiation.

10.5. Incompatible materials

Substances to avoid

Reactions with oxidising agents.

Corrodes aluminium.

Reactions with strong alkalis.

10.6. Hazardous decomposition products

Possible in traces: Hydrogen sulphide (H₂S).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 5000 mg/kg		ATE (acute toxicity estimate)	
LD50 acute dermal	> 5000 mg/kg		ATE (acute toxicity estimate)	
LC50 acute inhalation	> 50 mg/l ()		ATE (acute toxicity estimate)	vapours
Skin irritation	low irritant effect			
Eye irritation	irritant			
Skin sensitization	sensitizing			

Specific target organ toxicity (single exposure)

The mixture is not classified as specific target organ toxicant (single exposure).

Specific target organ toxicity (repeated exposure)

The mixture is not classified as specific target organ toxicant (repeated exposure).

Aspiration hazard

The mixture is not classified as aspiration hazardous.

Toxicity test (Additional information)

The mixture is not classified as mutagen.

The mixture is classified as carcinogen: Carc. 2 H351: Suspected of causing cancer.

The mixture is classified as reproductive toxicant: Repr. 2 H361d: Suspected of damaging the unborn child.

thiourea : LD50(oral, rat): 1750 mg/kg, LD50(dermal, rabbit): > 2800 mg/kg .

Experiences made from practice

Has a degreasing effect on the skin.

Frequent persistent contact with the skin may cause skin irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 52 mg/l		calculated	
Daphnia	EC50 46,9 mg/l		calculated	
Algae	EC50 38 mg/l		calculated	

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

Printed 16.07.2019

Revision 01.07.2019 (GB) Version 1.6

Flume Technik TE: Edelmetall - Tauchbad

	Value	Species	Method	Validation
Bacteria	EC10 1265 mg/l (18 h)	Pseudomonas putida		Value of pure thiourea.

12.2. Persistence and degradability

Physico-chemical degradability

100 %

Neutralization, pH-measurement

Acid properties can be eliminated up to 100% by neutralization.

Biological degradability

Moderately/partially biodegradable

The product is biodegradable after lengthy adaptation.

12.3. Bioaccumulative potential

propan-2-ol: Accumulation in organisms is not expected (log Pow: 0.05).

phosphoric acid: Accumulation in organisms is not expected.

thiourea: Accumulation in organisms is not expected (log Pow: -0.92).

12.4. Mobility in soil

propan-2-ol: Dissolves in water. Highly mobile in soil.

phosphoric acid: not available.

thiourea: Low adsorption on soil (Koc: 30,5).

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No further relevant informations available.

Additional ecological information

	Value	Method	Remark
COD	ca. 205 mgO ₂ /g	calculated	
BOD 5 d	13 mgO ₂ /g		Value of pure thiourea.
AOX	The product does not contain any organically bound halogens according to the recipe.		

General regulation

The surfactants in our product meet the criteria for biodegradation as laid down in Annex III of the Regulation (EC) No 648/2004 on detergents.

Acute aquatic environmental hazards: Aquatic Acute 3 H402: Harmful to aquatic life.

Chronic aquatic environmental hazards: Aquatic Chronic 3 H412: Harmful to aquatic life with long lasting effects.

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.

20 01 29*

Name of waste

detergents containing hazardous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

Recommendations for the product

Do not dispose with household waste.

Neutralize with alkalis or lime.

Remove in accordance with local official regulations.

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

Printed 16.07.2019

Revision 01.07.2019 (GB) Version 1.6

Flume Technik TE: Edelmetall - Tauchbad

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Recommended cleansing agent

Water

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	UN 1805	UN 1805	UN 1805
14.2. UN proper shipping name	PHOSPHORIC ACID, SOLUTION	PHOSPHORIC ACID SOLUTION	PHOSPHORIC ACID, SOLUTION
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	III	III	III
14.5. Environmental hazards	No	No	No
14.6. Special precautions for user	no		
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	not relevant		
Land and inland navigation transport ADR/RID			
Hazard label(s)	8		
tunnel restriction code	E		

! SECTION 15: Regulatory information

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

Authorizations

not relevant

Application restrictions

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

Other regulations (EU)

Regulation (EC) No 648/2004 (Detergents regulation).

Directive 2012/18/EU, Annex I: not mentioned.

VOC standard

VOC content 5,3 %

15.2. Chemical Safety Assessment

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

SECTION 16: Other information

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

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.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.5

Sources of key data used

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

Informations from our suppliers.

- | | |
|-------|--|
| H225 | Highly flammable liquid and vapour. |
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| H351 | Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). |
| H361d | Suspected of damaging fertility or the unborn child (state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). |
| H411 | Toxic to aquatic life with long lasting effects. |