

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

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

1.1 Product identifier

Trade name Aluminium-Teufel®**UFI:** 1WVU-EJSQ-100K-GX9E

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

No further relevant information available.

Application of the substance / the mixture Cleaning agent / Cleaner

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Tuga Chemie GmbH

Nordstr. 3

D-49086 Osnabrück

Tel. 0541/27403

E-Mail: info@tuga-chemie.de

Informing department: Product safety department

1.4 Emergency telephone number:

Medical Emergency information in case of poisoning:

Poison Information Center Mainz - 24h - Phone: +49 (0) 6131 19240 (advisory service in German or Englisch language)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Met. Corr. 1 H290 May be corrosive to metals.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

Additional information: The classification is based on an extreme pH value.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms

GHS05

Signal word Danger**Hazard-determining components of labelling:**

phosphoric acid

hydrochloric acid

Hazard statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 1)

Precautionary statements

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

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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.

P390 Absorb spillage to prevent material damage.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

Determination of endocrine-disrupting properties

The substance/mixture does not contain components in quantities of 0.1% or more considered to have endocrine disrupting properties according to UK REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.2 Mixtures**Description:** Mixture of the substances listed below with harmless additions (aqueous solution).**Dangerous components:**

CAS: 7664-38-2 EINECS: 231-633-2 Reg.nr.: 01-2119485924-24	phosphoric acid ☞ Met. Corr. 1, H290; Skin Corr. 1B, H314; ☠ Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25% Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %	≥2.5-<10%
CAS: 7647-01-0 EINECS: 231-595-7 Reg.nr.: 01-2119484862-27	hydrochloric acid ☞ Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318; ☠ STOT SE 3, H335 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25% Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 % STOT SE 3; H335: C ≥ 10 % Met. Corr. 1; H290: C ≥ 0.1 %	≥2.5-<10%
CAS: 1290049-56-7 EC number: 800-029-6 Reg.nr.: 01-2119962190-43	Amines, N-(C16-18 (even numbered) and C18-unsatd. alkyl) trimethylenedi-, ethoxylated Alternative CAS number: 61790-85-0 ☠ STOT RE 1, H372; ☞ Skin Corr. 1B, H314; ☠ Aquatic Chronic 1, H410; ☠ Acute Tox. 4, H302	<1%

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 2)

EC number: 939-253-5
Reg.nr.: 01-2119965180-41

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

<1%

☠ Skin Corr. 1B, H314; ☠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1); ☠ Acute Tox. 4, H302

Regulation (EC) No 648/2004 on detergents / Labelling for contents

non-ionic surfactants, cationic surfactants, perfumes

<5%

Additional information For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****General advice:** Instantly remove any clothing soiled by the product.**After inhalation** Supply fresh air; consult doctor in case of symptoms.**After skin contact**

Instantly wash with water and soap and rinse thoroughly. If skin irritation persists, seek medical advice.

After eye contact

Rinse immediately opened eye for several minutes under running water. Then consult doctor.

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; instantly call for medical help.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents**CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.**For safety reasons unsuitable extinguishing agents** Water with a full water jet.**5.2 Special hazards arising from the substance or mixture**

Thermal decomposition may release irritant gases and vapours

5.3 Advice for firefighters**Protective equipment:**

See section 8.

Wear full protective suit with self-contained breathing apparatus.

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment and keep unprotected persons away.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 3)

Avoid contact with skin, eyes and clothes.

6.2 Environmental precautions:

Dilute with much water.

If large amounts are released, the authorities must be informed.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Contaminated material has to be disposed as waste (see item 13).

6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

SECTION 7: Handling and storage**7.1 Precautions for safe handling** Keep containers tightly sealed.**Information about protection against explosions and fires:**

Pay attention to general rules of internal fire prevention.

7.2 Conditions for safe storage, including any incompatibilities**Storage** Keep containers tightly closed. Store in cool, dry conditions.**Requirements to be met by storerooms and containers:**

Observe official regulations on storage and handling of water hazardous substances

Information about storage in one common storage facility:

Do not store together with alkalis (caustic solutions).

Further information about storage conditions: None.**7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Components with critical values that require monitoring at the workplace:****CAS: 7664-38-2 phosphoric acid (≥2.5-<10%)**

WEL (Great Britain)	Short-term value: 2 mg/m ³
	Long-term value: 1 mg/m ³

AGW (Germany)	Long-term value: 2 E mg/m ³ 2(I);DFG, EU, AGS, Y
---------------	--

CAS: 7647-01-0 hydrochloric acid (≥2.5-<10%)

WEL (Great Britain)	Short-term value: 8 mg/m ³ , 5 ppm
	Long-term value: 2 mg/m ³ , 1 ppm (gas and aerosol mists)

AGW (Germany)	Long-term value: 3 mg/m ³ , 2 ppm 2(I);DFG, EU, Y
---------------	---

CAS: 56-81-5 glycerol (≥2.5-<10%)

WEL (Great Britain)	Long-term value: 10 mg/m ³
---------------------	---------------------------------------

AGW (Germany)	Long-term value: 200 E mg/m ³ 2 (I);DFG, Y
---------------	--

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 4)

DNELs		
CAS: 7664-38-2 phosphoric acid		
Oral	DNEL (population)	0.1 mg/kg bw/day (Long-term - systemic effects)
Inhalative	DNEL (worker)	2 mg/m ³ (Acute - local effects) 10.7 mg/m ³ (Long-term - systemic effects) 1 mg/m ³ (Long-term - local effects)
	DNEL (population)	4.57 mg/m ³ (Long-term - systemic effects) 0.36 mg/m ³ (Long-term - local effects)
CAS: 7647-01-0 hydrochloric acid		
Inhalative	DNEL (worker)	15 mg/m ³ (Acute - local effects) 8 mg/m ³ (Long-term - local effects)
	DNEL (population)	15 mg/m ³ (Acute - local effects) 8 mg/m ³ (Long-term - local effects)

Additional information: The lists that were valid during the compilation were used as basis.

8.2 Exposure controls

Appropriate engineering controls No further data; see section 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures

Keep away from food, beverages and fodder.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Gases, fumes and aerosols should not be inhaled.

Breathing equipment: Not necessary if room is well-ventilated.

Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection Tightly sealed safety glasses.

Body protection: Protective work clothing.

GB

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 5)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Colour:	Red
Smell:	Characteristic
Odour threshold:	Not determined.
Melting point/freezing point:	Not determined
Boiling point or initial boiling point and boiling range	100 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Product is non-flammable nor potentially explosive
Decomposition temperature:	Not determined.
pH at 20 °C	ca. 1
pH-value:	
Viscosity:	
Kinematic viscosity	Not determined.
dynamic:	Not determined.
Solubility	
Water:	Fully miscible
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density	Not determined
Relative density	Not determined.
Vapour density	Not determined.

9.2 Other information

Appearance:	
Form:	Fluid
Important information on protection of health and environment, and on safety.	
Self-inflammability:	Product is not selfigniting.
Explosive properties:	Product is not potentially explosive
Change in condition	
Evaporation rate	Not determined.

Information with regard to physical hazard classes

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 6)

Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	May be corrosive to metals.
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions Reacts with various metals

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials:

strong oxidizing agents

Strong bases

10.6 Hazardous decomposition products:

Thermal decomposition can produce a variety of compounds, the precise nature of which will depend on the decomposition conditions.

SECTION 11: Toxicological information

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

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

LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	>3,026-20,172 mg/kg (rat)
------	------	---------------------------

CAS: 7664-38-2 phosphoric acid

Oral	LD50	>300-2,000 mg/kg (rat) (OECD 423)
------	------	-----------------------------------

Dermal	LD50	2,740 mg/kg (rabbit)
--------	------	----------------------

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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

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

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 7)

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

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

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

11.2 Information on other hazards

Endocrine disrupting properties

Not all ingredients are listed

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability

CAS: 1290049-56-7 Amines, N-(C16-18 (even numbered) and C18-unsatd. alkyl) trimethylenedi-, ethoxylated

Biodegradability 61 % (OECD 301 B)

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Biodegradability >70 % (OECD 301 D)

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

Additional ecological information:

General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

The following advice is related to new material and not to any processed products. In case of a mixture with other products other disposal methods may become necessary. If in doubt seek advice from product supplier or from local authorities.

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Waste disposal key number:

Since 01/01/99 the waste code numbers have not only been product-related but are also essentially application-related. The valid waste code number of the application can be obtained from the European waste catalogue.

Uncleaned packagings: Disposal must be made according to official regulations.

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 8)

Recommendation:

After complete emptying and cleaning, send to be reconditioned or recycled.

Rented packaging: After optimal emptying, close immediately and return to the supplier without cleaning. Care should be taken that no other materials get into the packaging.

Other containers: After complete emptying and cleaning, send to be reconditioned or recycled.

Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, IMDG, IATA

UN3264

14.2 UN proper shipping name

ADR

3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, PHOSPHORIC ACID, SOLUTION)

IMDG, IATA

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, PHOSPHORIC ACID, SOLUTION)

14.3 Transport hazard class(es)

ADR

Class

8 (C1) Corrosive substances.

Label

8

IMDG, IATA

Class

8 Corrosive substances.

Label

8

14.4 Packing group

ADR

III

14.5 Environmental hazards:

Marine pollutant:

Not applicable.

No

14.6 Special precautions for user

Kemler Number:

Warning: Corrosive substances.

80

EMS Number:

F-A, S-B

Segregation groups

Acids

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

Transport/Additional information:

ADR

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000

ml

Transport category

3

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 9)

Tunnel restriction code	E
UN "Model Regulation":	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID, PHOSPHORIC ACID, SOLUTION), 8, III

SECTION 15: Regulatory information

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

TSCA (Toxic Substances Control Act)

All ingredients are listed.

Canadian Domestic Substances List (DSL)

All ingredients are listed.

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All ingredients are listed.

Chinese Chemical Inventory of Existing Chemical Substances (IECSC)

All ingredients are listed.

Australian Inventory of Industrial Chemicals (AIIC)

All ingredients are listed.

Korean Existing Chemical Inventory (KECI)

All ingredients are listed.

New Zealand Inventory of Chemicals (NZIoC)

All ingredients are listed.

Taiwan Chemical Substance Inventory (TCSI)

All ingredients are listed.

Japan - Existing Chemical Substances (ENCS)

All ingredients are listed.

Directive 2012/18/EU
Named dangerous substances - ANNEX I (12. BImSchV) Not all ingredients are listed
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

Not all ingredients are listed

REGULATION (EU) 2019/1148
Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

Not all ingredients are listed

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

Not all ingredients are listed

(Contd. on page 11)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 10)

Regulation (EC) No 273/2004 on drug precursors

CAS: 7647-01-0 hydrochloric acid

3

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

CAS: 7647-01-0 hydrochloric acid

3

National regulations**Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. In accordance with Annex II of EC No 1907/2006 as applicable on the date of this safety data sheet.

Registration-Number**Relevant phrases**

Complete wording of hazard statements and risk phrases (H- and R-phrases) mentioned in section 3. These phrases refer to the constituents. The labelling for this product is stated in section 2.

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

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.

Department issuing data specification sheet: see item 1: Informing department**Date of previous version:** 26.01.2023**Version number of previous version:** 3**Abbreviations and acronyms:**

LEV: Local Exhaust Ventilation

RPE: Respiratory Protective Equipment

RCR: Risk Characterisation Ratio (RCR= PEC/PNEC and RCR= Estimated Exposition/DNEL)

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GB CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

(Contd. on page 12)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.07.2023

Version number 4 (replaces version 3)

Revision: 23.06.2023

Trade name Aluminium-Teufel®

(Contd. of page 11)

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

*** Data compared to the previous version altered.**

GB