SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

COPPER CLEANER +

Creation date	05th November 2012		
Revision date	24th December 2019	Version	2.0

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

1.1. Product identifier

Substance / mixture: mixture

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

Mixture's intended use: Ready to use product designed for effectively cleaning non -ferrous metals and their alloys (copper, brass and copper).

Mixture uses advised against: The product should not be used in ways other then those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Name or trade name	TENZI Sp. z o.o.
Address	Skarbimierzyce 20, Dołuje, 72-002 Poland
VAT Reg No	PL8512583405
Phone	+48 91 3119777
E-mail	info@tenzi.pl
Web address	www.tenzi.pl

Competent person responsible for the safety data sheet

Name: technolog@tenzi.pl

1.4. Emergency telephone number

National Health Service (NHS) 111
National poisoning information centre Scotland, NHS 24: 111 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Skin Irrit. 2, H315
Eye Irrit. 2, H319

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse effects on human health and the environment

Causes serious eye irritation. Causes skin irritation.

2.2. Label elements

Hazard pictogram

Signal word

Warning

Hazard statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary statements

P280	Wear protective gloves.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental information

<5 % anionic surfactants

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 77-92-9 EC: 201-069-1 Registration number: 01-2119457026-42-XXXX	citric acid	<8	Eye Irrit. 2, H319	
CAS: 85536-14-7 EC: 287-494-3 Registration number: 01-2119490234-40-XXXX	Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs	<2	Acute Tox. 4, H302 Skin Corr. 1C, H314 Aquatic Chronic 3, H412	

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. Provide medical treatment, specialized if possible.

If swallowed

DO NOT INDUCE VOMITING - even the inducted vomiting can cause complications as in case of detergents and other foaming substances.

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

If inhaled

Not expected.

If on skin

Causes skin irritation.

If in eyes

Causes serious eye irritation.

If swallowed

Irritation, nausea.

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Use a self-contained breathing apparatus and full-body protective clothing. Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in a tightly closed, original plastic container (high-quality polyethylene HDPE). Store this product in a dry environment that will be maintained at 5°C - 35°C temperature with a good ventilation system and an easy washable, nonabsorbable alkaline resistant floor. DO NOT expose the product to sunlight and keep away from heat, frost, sparks, flame and source of ignition.

Material of package	HDPE (2), High-density (linear) polyethylene (Plastics)
Storage temperature	min 5 °C, max 35 °C

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Dermal	170 mg/kg	Local chronic effects	
Workers	Inhalation	12 mg/m³	Local chronic effects	
Workers	Inhalation	12 mg/m³	Local acute effects	
Consumers	Dermal	85 mg/kg	Local chronic effects	
Consumers	Inhalation	3 mg/m³	Local chronic effects	
Consumers	Oral	0.85 mg/kg	Local chronic effects	
	Inhalation	3 mg/m³	Local acute effects	

PNEC

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs

Route of exposure	Value	Determining method
Drinking water	0.287 mg/l	
Seawater	0.0287 mg/l	
Water (intermittent release)	0.0167 mg/l	
Freshwater sediment	0.287 mg/kg	
Sea sediments	0.287 mg/kg	
Soil (agricultural)	35 mg/kg	
Microorganisms in wastewater treatment plants	3.43 mg/l	

8.2. Exposure controls

Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

Respiratory protection

It is not needed.

Thermal hazard

Data not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	colorless liquid
Physical state	liquid at 20°C
color	colourless
Odour	Characteristic for the raw materials used
Odour threshold	data not available
pH	1 (undiluted at 20°C)
Melting point/freezing point	data not available
Initial boiling point and boiling range	data not available
Flash point	data not available
Evaporation rate	data not available
Flammability (solid, gas)	data not available

Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	data not available
Vapour pressure	data not available
Vapour density	data not available
Relative density	1.032 g/cm3 (+-) 0.020
Solubility(ies)	
solubility in water	soluble
solubility in fats	data not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
Viscosity	data not available
Explosive properties	data not available
Oxidising properties	data not available

9.2. Other information

Density	data not available
ignition temperature	data not available

SECTION 10: Stability and reactivity

10.1. Reactivity
not available

10.2. Chemical stability
The product is stable under normal conditions.

10.3. Possibility of hazardous reactions
Unknown.

10.4. Conditions to avoid
The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials
Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products
Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
No toxicological data is available for the mixture.

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

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD_{50}	1470 mg/kg		Rat (Rattus norvegicus)		karta charaktery styki
Skin	LD_{50}	2000 mg/kg		Rat		karta charaktery styki

citric acid

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD_{50}	11700 mg/kg		Rat (Rattus norvegicus)		karta charaktery styki
Oral	LD_{50}	5040 mg/kg		Mouse		karta charaktery styki
Dermal	LD_{50}	885 mg/kg		Rat (Rattus norvegicus)		karta charaktery styki
Dermal	LD_{50}	961 mg/kg		Mouse		karta charaktery styki

Skin corrosion/irritation
Causes skin irritation.

citric acid

Route of exposure	Result	Time of exposure	Species	Source
	Slightly irritating			karta charakterystyki

Serious eye damage/irritation
Causes serious eye irritation.

citric acid

Route of exposure	Result	Time of exposure	Species	Source
	Irritating			karta charakterystyki

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.

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

Toxicity for specific target organ - single exposure
Based on available data the classification criteria are not met.

Toxicity for specific target organ - repeated exposure
Based on available data the classification criteria are not met.

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

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Data for the mixture are not available.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC_{50}		>1-10 mg/l	96 hour	Fishes		karta charakterystyki
EC_{50}	OECD 202	>1-10 mg/l	48 hour	Crustaceans (Daphnia magna)		karta charakterystyki
NOEC		>4 mg/l	28 day	Algae and other aquatic plants		karta charakterystyki
LC_{50}		>1000 mg/kg		Invertebrates		karta charakterystyki
EC_{50}	OECD 208	167 mg/kg	21 day	Higher plants		karta charakterystyki
EC_{50}	OECD 208	289 mg/kg	21 day	Higher plants		karta charakterystyki
EC_{50}	OECD 208	316 mg/kg	21 day	Higher plants		karta charakterystyki

citric acid

Parameter	Method	Value	Time of exposure	Species	Environment	Source
LC_{50}		440-706 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		karta charakterystyki

Chronic toxicity

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs

Parameter	Value	Time of exposure	Species	Environment	Source
NOEC	>1-10 mg/l	32 day	Crustaceans		karta charakterystyki
NOEC	1 mg/l	28 day	Fishes		karta charakterystyki

12.2. Persistence and degradability

Biodegradability

citric acid

Parameter	Method	Value	Time of exposure	Environment	Result	Source
	OECD 302B	>98 %	2 day		Easily biodegradable	karta charakterystyki

The mixture is biodegradable.

12.3. Bioaccumulative potential
Data not available.

12.4. Mobility in soil
Data not available.

12.5. Results of PBT and vPvB assessment
Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects
Data not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code
07 06 04 other organic solvents, washing liquids and mother liquors *

Packaging waste type code
15 01 02 plastic packaging
(*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

SECTION 14: Transport information

14.1. UN number
Not subject to ADR

14.2. UN proper shipping name
not available

14.3. Transport hazard class(es)
not available

14.4. Packing group
not available

14.5. Environmental hazards
not available

14.6. Special precautions for user
Reference in the Sections 4 to 8.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
not available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 as amended. Environmental Protection Act 1990 as amended. Clean Air Act 1993 as amended. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as ammended.

15.2. Chemical safety assessment

Chemical safety assessment has not been carried out for the mixture.
For the following substances, mixtures:
Citric acid: the manufacturer has performed a chemical safety assessment
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives: the manufacturer has performed a chemical safety assessment

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

P280	Wear protective gloves.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC_{50}	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC_{50}	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC_{50}	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD_{50}	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals

RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Eye Irrit.	Eye irritation
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

More information

Classification procedure - calculation method.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.