

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date 12th September 2022  
Revision date 03rd March 2023 Version 11.0

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

- 1.1. Product identifier**  
Substance / mixture Topnik TS-81 mixture  
UFI XR10-20S6-200Y-2FWK
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**  
**Mixture's intended use**  
Flux agent.  
**Main intended use**  
PC-TEC-24 Welding, soldering, and flux products  
**Mixture uses advised against**  
The product should not be used in ways other than those referred in Section 1.
- 1.3. Details of the supplier of the safety data sheet**  
**Manufacturer**  
Name or trade name AG TermoPasty Grzegorz Gąsowski  
Address Kolejowa 33 E, Sokoły, 18-218  
Poland  
Identification number (CRN) 200133730  
VAT Reg No PL9661767714  
Phone 862741342  
E-mail biuro@termopasty.pl  
Web address www.termopasty.pl
- Competent person responsible for the safety data sheet**  
Name AG TermoPasty Grzegorz Gąsowski  
E-mail biuro@termopasty.pl
- 1.4. Emergency telephone number**  
European emergency number: 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.

Acute Tox. 4, H302  
Skin Corr. 1A, H314  
Skin Sens. 1, H317  
STOT SE 3, H335  
Aquatic Chronic 3, H412

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

Danger

#### Hazardous substances

phosphoric acid 75-85 %  
Diethylammonium chloride

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date 12th September 2022  
Revision date 03rd March 2023 Version 11.0

### Hazard statements

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.

### Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
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 doctor.

### 2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. 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
Index: 015-011-00-6 CAS: 7664-38-2 EC: 231-633-2 Registration number: 01-2119485924-24-XXXX	phosphoric acid 75-85 %	≤25	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1B, H314 Specific concentration limit: Skin Corr. 1B, H314: C ≥ 25 % Eye Irrit. 2, H319: 10 % ≤ C < 25 % Skin Irrit. 2, H315: 10 % ≤ C < 25 %	1, 2, 3
CAS: 660-68-4 EC: 211-541-9 Registration number: 01-2120765004-62-XXXX	Diethylammonium chloride	≤20	Acute Tox. 4, H302+H332 Acute Tox. 3, H311 Skin Corr. 1A, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 STOT SE 3, H335	

#### Notes

- Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.
- A substance for which exposure limits are set.
- The substance is included in Annex XIV of the REACH Regulation

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

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date	12th September 2022	Version	11.0
Revision date	03rd March 2023		

### 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! Rinse out the mouth with water and provide 2-5 dL of water. Provide medical treatment if the person has any health problems.

#### 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.

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date 12th September 2022  
Revision date 03rd March 2023 Version 11.0

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. 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 tightly closed containers in cold, dry and well ventilated areas designated for this purpose.

Content	Packaging type	Material of package
100 ml	bottle	HDPE
500 ml	bottle	HDPE
1000 ml	bottle	FE

#### 7.3. Specific end use(s)

not available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

##### European Union

##### Commission Directive 2000/39/EC

Substance name (component)	Type	Value
phosphoric acid 75-85 % (CAS: 7664-38-2)	OEL 8 hours	1 mg/m <sup>3</sup>
	OEL 15 minutes	2 mg/m <sup>3</sup>

##### United Kingdom

##### EH40/2005 Workplace exposure limits (Fourth Edition 2020)

Substance name (component)	Type	Value
phosphoric acid 75-85 % (CAS: 7664-38-2)	WEL 8h	1 mg/m <sup>3</sup>
	WEL 15min	2 mg/m <sup>3</sup>

##### DNEL

phosphoric acid 75-85 %

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	1 mg/m <sup>3</sup>	Chronic effects local		
Workers	Inhalation	2 mg/m <sup>3</sup>	Acute effects local		
Consumers	Inhalation	0.73 mg/m <sup>3</sup>	Chronic effects local		

#### 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.

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date	12th September 2022	Version	11.0
Revision date	03rd March 2023		

### Respiratory protection

Halfmask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of substances are exceeded or in a poorly ventilated environment.

### 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

Physical state	liquid
Colour	colourless
Odour	acid
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	data not available
Flammability	data not available
Lower and upper explosion limit	data not available
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	6 (undiluted)
Kinematic viscosity	data not available
Solubility in water	insoluble
Solubility in fats	data not available
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	
Density	1,270 g/cm <sup>3</sup>
Relative vapour density	data not available
Particle characteristics	data not available
Form	liquid

### 9.2. Other information

Evaporation rate	data not available
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## 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 hazard classes as defined in Regulation (EC) No 1272/2008

No toxicological data is available for the mixture.

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date 12th September 2022  
Revision date 03rd March 2023 Version 11.0

### Acute toxicity

Based on available data the classification criteria are not met.

Diethylammonium chloride

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	OECD 401	540 mg/kg		Rat	
Inhalation	LC <sub>50</sub>	OECD 403	17.3 mg/l	4 hours	Rat	
Dermal	LD <sub>50</sub>		582 mg/kg		Rabbit	

phosphoric acid 75-85 %

Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>		2600 ml/kg		Rat (Rattus norvegicus)	
Oral	NOAEL		250 mg/kg		Rat (Rattus norvegicus)	

### Skin corrosion/irritation

Causes skin irritation.

Diethylammonium chloride

Route of exposure	Result	Exposure time	Species
	Corrosive		Rabbit

### Serious eye damage/irritation

Causes serious eye irritation.

Diethylammonium chloride

Route of exposure	Result	Method	Exposure time	Species
Eye	Serious eye damage	OECD 405		Rabbit

### Sensitization

Diethylammonium chloride

Route of exposure	Result	Method	Exposure time	Species	Sex
	Sensitizing	OECD 406		Guinea-pig	

### 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.

Diethylammonium chloride

Result	Method	Exposure time	Specific target organ	Species	Sex
Negative	OECD 474		Female reproductive organs	Mouse	F/M
Negative	OECD 471			Bacteria (Salmonella typhimurium)	

### 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.

Diethylammonium chloride

Route of exposure	Parameter	Value	Result	Species	Sex
			Slightly irritating		

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date 12th September 2022  
Revision date 03rd March 2023 Version 11.0

### Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

### Aspiration hazard

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. Based on available data the classification criteria are not met.

### 11.2. Information on other hazards

not available

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Acute toxicity

Diethylammonium chloride

Parameter	Method	Value	Exposure time	Species	Environment	Value determination
LC <sub>50</sub>	OECD 203	>100 mg/l	96 hours	Fish ( <i>Ozyrias latipes</i> )		
EC <sub>50</sub>	OECD 202	58.4 mg/l	48 hours	Daphnia ( <i>Daphnia magna</i> )		
EC <sub>50</sub>	OECD 201	48.3 mg/l	72 hours	Algae ( <i>Pseudokirchneriella subcapitata</i> )		
NOEC	OECD 201	15.4 mg/l	72 hours	Algae ( <i>Pseudokirchneriella subcapitata</i> )		

phosphoric acid 75-85 %

Parameter	Method	Value	Exposure time	Species	Environment	Value determination
EC <sub>50</sub>	OECD 202	>100 mg/l	48 hours	Daphnia ( <i>Daphnia magna</i> )	Fresh water	Static system
EC <sub>50</sub>	OECD 201	>100 mg/l	72 hours	Algae and other aquatic plants	Fresh water	Static system

### 12.2. Persistence and degradability

#### Biodegradability

Diethylammonium chloride

Parameter	Method	Value	Exposure time	Environment	Result
	OECD 301C	100 %	28 days		Easily biodegradable

Data not available.

### 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. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

### 12.7. Other adverse effects

Data not available.

## SECTION 13: Disposal considerations

# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date	12th September 2022		
Revision date	03rd March 2023	Version	11.0

### 13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. 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

11 05 04 spent flux \*

#### Packaging waste type code

15 01 10 packaging containing residues of or contaminated by hazardous substances \*

(\* ) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

## 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)

not relevant

### 14.4. Packing group

not relevant

### 14.5. Environmental hazards

not relevant

### 14.6. Special precautions for user

Reference in the Sections 4 to 8.

### 14.7. Maritime transport in bulk according to IMO instruments

not relevant

## SECTION 15: Regulatory information

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

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 as amended.

### 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out (mixture).

## SECTION 16: Other information

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

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.



# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date	12th September 2022	Version	11.0
Revision date	03rd March 2023		

H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
H302+H332	Harmful if swallowed or if inhaled.
<b>Guidelines for safe handling used in the safety data sheet</b>	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
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 doctor.

### 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
EC	Identification code for each substance listed in EINECS
EC <sub>50</sub>	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
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC <sub>50</sub>	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD <sub>50</sub>	Lethal dose of a substance in which it can be expected death of 50% of the population
log Kow	Octanol-water partition coefficient
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
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
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# SAFETY DATA SHEET



according to Commission Regulation (EU) 2020/878 as amended

## Topnik TS-81

Creation date	12th September 2022	Version	11.0
Revision date	03rd March 2023		

Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Eye Dam.	Serious eye damage
Met. Corr.	Corrosive to metals
Skin Corr.	Skin corrosion
Skin Sens.	Skin sensitization
STOT SE	Specific target organ toxicity - single exposure

### 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.

### The changes (which information has been added, deleted or modified)

The version 10.0 replaces the SDS version from 12 September 2022. Changes were made in sections 1, 2, 12, 13, 15 and 16.

### 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.