



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

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

#### 1.1 Product identifier

Trade name : ENERGY UNI  
UFI : YEG3-K0EV-P00Y-HJD9

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

Use of the Substance/Mixture : detergents for dishwashers  
Restricted to professional users.

#### 1.3 Details of the supplier of the safety data sheet

Company : Tana Chemie GmbH  
Rheinallee 96  
55120 Mainz  
Telephone : +49613196403  
Telefax : +4961319642414  
E-mail address : Produktsicherheit@werner-mertz.com  
Responsible/issuing person  
Contact person : Product development / product safety

#### 1.4 Emergency telephone number

112  
Centru za kontrolu otrovanja u Zagrebu na tel. (01) 2348 342  
+49(0)6131-19240

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Corrosive to metals, Category 1 H290: May be corrosive to metals.  
Skin corrosion, Category 1 H314: Causes severe skin burns and eye damage.  
Serious eye damage, Category 1 H318: Causes serious eye damage.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H290 May be corrosive to metals.



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

	H314	Causes severe skin burns and eye damage.
Precautionary statements	: P102	Keep out of reach of children.
	<b>Prevention:</b>	
	P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
	<b>Response:</b>	
	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. Immediately call a POISON CENTER/ doctor.
	P310	
	<b>Disposal:</b>	
	P501	Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

sodium hydroxide  
potassium hydroxide

Safety data sheet available on request.

### 2.3 Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
sodium hydroxide	SODIUM HYDROXIDE 215-185-5 011-002-00-6 01-2119457892-27	Met. Corr. 1; H290 Skin Corr. 1A; H314  specific concentration limit Skin Corr. 1A; H314 ≥ 5 % Skin Corr. 1B; H314 2 - < 5 % Skin Irrit. 2; H315 0,5 - < 2 % Eye Irrit. 2; H319 0,5 - < 2 %	≥ 10 - < 15
potassium hydroxide	POTASSIUM HYDROXIDE 215-181-3 019-002-00-8 01-2119487136-33	Acute Tox. 4; H302 Skin Corr. 1A; H314 Met. Corr. 1; H290  specific concentration limit	≥ 5 - < 10



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

		Skin Corr. 1A; H314 >= 5 % Skin Corr. 1B; H314 2 - < 5 % Skin Irrit. 2; H315 0,5 - < 2 % Eye Irrit. 2; H319 0,5 - < 2 %	
		Acute toxicity estimate	
		Acute oral toxicity: 500,0 mg/kg	

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.  
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.  
Protect unharmed eye.  
Continue rinsing eyes during transport to hospital.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do NOT induce vomiting.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Take victim immediately to hospital.

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

- Symptoms : corrosive effects
- Risks : No information available.

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

- Treatment : For specialist advice physicians should contact the Poisons Information Service.



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

#### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.  
Evacuate personnel to safe areas.

#### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

#### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Neutralise with acid.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For personal protection see section 8., Treat recovered material as described in the section "Disposal considerations"., Refer to section 15 for specific national regulation.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
To avoid spills during handling keep bottle on a metal tray.



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store at room temperature in the original container.

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : <\*\* Phrase language not available: [ EN ] CUST - WM01.00024 \*\*>  
<\*\* Phrase language not available: [ EN ] CUST - WM01.00035 \*\*>  
<\*\* Phrase language not available: [ EN ] CUST - WM01.00038 \*\*>

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Personal protective equipment

Eye protection : Tightly fitting safety goggles

Hand protection

Material : Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place. Remove and wash contaminated clothing before re-use.

Respiratory protection : Not required; except in case of aerosol formation.  
Recommended Filter type:  
ABEK-P3-filter

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid



## ENERGY UNI

**WM 0715968**

**Order number: 0715968**

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

Colour	: colourless
Odour	: characteristic
Odour Threshold	: No data available
pH	: ca. 14,0, 100 % at 20 °C
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: Not applicable
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Flammability (liquids)	: No data available
Burning rate	: No data available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: ca. 1,283 g/cm <sup>3</sup> at 20 °C
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n- octanol/water	: No data available
Ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2 Other information

none

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.  
No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.  
No decomposition if used as directed.

### 10.4 Conditions to avoid

Conditions to avoid : No data available

### 10.5 Incompatible materials

Materials to avoid : No data available

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

## SECTION 11: Toxicological information

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

Our company is strongly against animal testing.

Our company does not place any orders for animal testing for the finished product or the ingredients.

However, as a result of EU legislation (REACH Regulation), the manufacturers of ingredients or EU importers are obliged to test ingredients with regard to their effects on human health and the environment before they are brought onto the market. Some of the tests made necessary by this took place decades ago.

#### Acute toxicity

##### Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method

##### Components:

#### sodium hydroxide

##### **SODIUM HYDROXIDE:**

Acute oral toxicity : LD50 Oral (Rat): 2.000 mg/kg

#### potassium hydroxide

##### **POTASSIUM HYDROXIDE:**

Acute oral toxicity : LD50 (Rat): 273 mg/kg

Acute toxicity estimate: 500,0 mg/kg  
Method: Converted acute toxicity point estimate

LD50 Oral (Rat, male): 333 mg/kg  
Method: OECD Test Guideline 425

#### Skin corrosion/irritation

##### Product:

Remarks : Extremely corrosive and destructive to tissue.



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

### Components:

**sodium hydroxide**

#### **SODIUM HYDROXIDE:**

Result : Corrosive

**potassium hydroxide**

#### **POTASSIUM HYDROXIDE:**

Result : Corrosive

### **Serious eye damage/eye irritation**

#### Product:

Remarks : May cause irreversible eye damage.

### Components:

**sodium hydroxide**

#### **SODIUM HYDROXIDE:**

Result : Corrosive

**potassium hydroxide**

#### **POTASSIUM HYDROXIDE:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : Corrosive

### **Respiratory or skin sensitisation**

#### Product:

Remarks : No data available

### Components:

**potassium hydroxide**

#### **POTASSIUM HYDROXIDE:**

Species : Guinea pig  
Result : Did not cause sensitisation on laboratory animals.

### **Germ cell mutagenicity**

Germ cell mutagenicity : Not Rated

### Components:

**potassium hydroxide**

#### **POTASSIUM HYDROXIDE:**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Result: negative

Carcinogenicity : Not Rated





## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

Reproductive toxicity	: Not Rated
STOT - single exposure	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity	: Not Rated

### 11.2 Information on other hazards

#### Further information

#### Product:

Remarks : No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

#### **sodium hydroxide** **1310-73-2:**

Toxicity to fish	: LC50 (Fish): 33 - 189 mg/l Exposure time: 96 h
	LC50 (Gambusia affinis (Mosquito fish)): 125 mg/l Exposure time: 96 h
	LC50 (Poecilia reticulata (guppy)): 76 mg/l Exposure time: 24 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia (water flea)): 40,4 mg/l
	EC50 (Daphnia magna (Water flea)): 76 mg/l Exposure time: 24 h
	EC50 (Ceriodaphnia (water flea)): 40,4 mg/l Exposure time: 48 h Test Type: Immobilization
Toxicity to bacteria	: EC50 (Photobacterium phosphoreum): 22 mg/l Exposure time: 15 min

#### **potassium hydroxide** **1310-58-3:**

Toxicity to fish	: (Pimephales promelas (fathead minnow)): 880 mg/l Exposure time: 96 h Test Type: static test
	LC50 (Gambusia affinis (Mosquito fish)): 80 mg/l



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

Exposure time: 96 h

LC50 (Poecilia reticulata (guppy)): 165 mg/l

Exposure time: 24 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 660 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae : EC50 : 1.337 mg/l  
Exposure time: 120 h

Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 22 mg/l  
Exposure time: 15 min

Toxicity to soil dwelling organisms : LC50: 850 mg/kg  
Exposure time: 90 d

### 12.2 Persistence and degradability

#### Components:

**sodium hydroxide**

**1310-73-2:**

Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

### 12.3 Bioaccumulative potential

#### Components:

**sodium hydroxide**

**1310-73-2:**

Bioaccumulation : Species: Fish  
Remarks: No bioaccumulation is to be expected (log Pow <= 4).

**potassium hydroxide**

**1310-58-3:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

#### Components:

**potassium hydroxide**

**1310-58-3:**

Assessment : This substance is not considered to be very persistent and very bioaccumulating (vPvB).. This substance is not considered to be persistent, bioaccumulating and toxic (PBT)..

### 12.6 Other adverse effects

#### Product:

Additional ecological information : There is no data available for this product.



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

- Product : Do not dispose of waste into sewer.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
In accordance with local and national regulations.
- Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

### SECTION 14: Transport information

#### 14.1 UN number

- ADR : 1719  
IMDG : 1719  
IATA : 1719

#### 14.2 Proper shipping name

- ADR : CAUSTIC ALKALI LIQUID, N.O.S.  
(sodium hydroxide, potassium hydroxide)
- IMDG : CAUSTIC ALKALI LIQUID, N.O.S.  
(sodium hydroxide, potassium hydroxide)
- IATA : Caustic alkali liquid, n.o.s.

#### 14.3 Transport hazard class

- ADR : 8  
IMDG : 8  
IATA : 8

#### 14.4 Packing group

- ADR  
Classification Code : C5  
Packaging group : II  
Hazard Identification Number : 80  
Labels : 8  
Tunnel restriction code : (E)
- IMDG  
Packaging group : II  
Labels : 8  
EmS Number : F-A, S-B
- IATA  
(Cargo) : Caustic alkali liquid, n.o.s.  
Packaging group : II  
Labels : 8

#### 14.5 Environmental hazards

- ADR  
Environmentally hazardous : no
- IMDG  
Marine pollutant : no
- IATA  
Environmentally hazardous : no



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

For personal protection see section 8.

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable

TA Luft List (Germany) : Total dust: Not applicable  
: Inorganic substances in powdered form: Not applicable  
: Inorganic substances in vapour or gaseous form: Not applicable  
: Organic Substances: Not applicable  
: Carcinogenic substances: Not applicable  
: Mutagenic: Not applicable  
: Toxic to reproduction: Not applicable

Volatile organic compounds (VOC) content : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Update: Not applicable

according to Detergents Regulation EC 648/2004 : <5% phosphonates, polycarboxylates

### 15.2 Chemical safety assessment

## SECTION 16: Other information

### Full text of H-Statements

H290 : May be corrosive to metals.  
H302 : Harmful if swallowed.  
H314 : Causes severe skin burns and eye damage.

### Full text of other abbreviations

Acute Tox. : Acute toxicity



## ENERGY UNI

WM 0715968

Order number: 0715968

Version 1.3

Revision Date 27.07.2022

Print Date 13.08.2022

Met. Corr. : Corrosive to metals  
Skin Corr. : Skin corrosion

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Met. Corr. 1 H290  
Skin Corr. 1 H314  
Eye Dam. 1 H318

#### Classification procedure:

Calculation method  
Based on product data or assessment  
Based on product data or assessment

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

REG\_EU / EN