



ENERGY PERFECT 2 X 5 LITER

WM 0712615

Order number: 0712615

Version 4.0

Revision Date 28.10.2017

Print Date 06.12.2017

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

1.1 Product identifier

Trade name : ENERGY PERFECT 2 X 5 LITER
Identification number : 61217

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

+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 1A H314: Causes severe skin burns and 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.
H314 Causes severe skin burns and eye damage.

Precautionary statements : P102 Keep out of reach of children.



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Prevention:

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

Response:

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

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

sodium hydroxide

Additional Labelling:

Safety data sheet available on request.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Aqueous solution

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
sodium hydroxide	1310-73-2 215-185-5 01-2119457892-27-XXXX	Skin Corr. 1A; H314 Met. Corr. 1; H290 SCL ≥ 5 % 1A; H314 2 - < 5 % 1B; H314 0,5 - < 2 % 2; H315 0,5 - < 2 % 2; H319	≥ 10 - < 15

For explanation of abbreviations see section 16.



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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.

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



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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 materials 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.
- 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



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resealed and kept upright to prevent leakage. Store at room temperature in the original container.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : detergents for dishwashers

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

DNEL

sodium hydroxide
1310-73-2:

: End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term local effects
Value: 1 mg/m³

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term local effects
Value: 1 mg/m³

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 (0,4 mm).

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:



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ABEK-P3-filter

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: colourless
Odour	: characteristic
Odour Threshold	: No data available
pH	: ca. 12,2, Concentration: 10,00 g/l 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
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. 1,264 g/cm ³
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



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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.

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

Hazardous decomposition products : No hazardous decomposition products are known.
Other information : No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product

Skin corrosion/irritation : Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation : May cause irreversible eye damage.

Respiratory or skin sensitisation : No data available

Further information : No data available

Components: sodium hydroxide

1310-73-2:

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



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Skin corrosion/irritation : Result: Corrosive
Serious eye damage/eye irritation : Result: Corrosive

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

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

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).



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12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

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

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.
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

Waste Code : European Waste Catalogue
20 01 29*
According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

14.1 UN number

ADR : 3267
IMDG : 3267
IATA : 3267

14.2 Proper shipping name

ADR : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(sodium hydroxide)

IMDG : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(sodium hydroxide)

IATA : Corrosive liquid, basic, organic, n.o.s.
(sodium hydroxide)



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14.3 Transport hazard class

ADR : 8
IMDG : 8
IATA : 8

14.4 Packing group

ADR
Classification Code : C7
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
Packing instruction (cargo aircraft) : 855
Packing instruction (LQ) : Y840
Packaging group : II
Labels : 8

14.5 Environmental hazards

ADR
Environmentally hazardous : no

IMDG
Marine pollutant : no

IATA
Environmentally hazardous : no

14.6 Special precautions for user

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

: Directive 96/82/EC does not apply

Seveso III: Directive 2012/18/EU : Not applicable

of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

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: : portionClass 1: < 0,01 %

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Werner & Mertz
Professional

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	: Carcinogenic substances: Not applicable
	: Mutagenic: Not applicable
	: Toxic to reproduction: Not applicable
Volatile organic compounds (VOC) content	: Not applicable
according to Detergents Regulation EC 648/2004	: <5% Phosphonates, Polycarboxylates
Diğer kurallar	: 26 Aralık 2008 tarihli, 27092 mükerrer sayılı, "T.C. Çevre ve Orman Bakanlığı Tehlikeli Maddeler ve Müstahzarlara İlişkin Güvenlik Bilgi Formlarının Hazırlanması ve Dağıtılması Hakkında Yönetmeliği" ne uygun düzenlenmiştir. 26 Aralık 2008 27092 (mükerrer) sayılı Tehlikeli Maddelerin ve Müstahzarların Sınıflandırılması, Ambalajlanması ve Etiketlenmesi Hakkında Yönetmelik hükümlerine göre hazırlanmıştır.

15.2 Chemical safety assessment

There is no data available for this product.

SECTION 16: Other information

Full text of H-Statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

Further information

Classification procedure:	H290	On basis of test data.
	H314	Calculation method

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; AICS - Australian Inventory of Chemical Substances; 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 -



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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; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

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.

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