

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

TETENAL

Printing date 12.11.2019

version no: 3

Revision: 12.11.2019

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

- . **1.1 Product identifier**
- . **Trade name: Eukobrom AC**
- . **Article number:** 100250
- . **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** Developer for photographic use
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
TETENAL 1847 GmbH
Schützenwall 31-35
D-22844 Norderstedt /Germany
Tel.: +49 (0) 40 521 45-0; Fax: +49 (0)40-52145-296
www.tetenal.com; E-mail: info@tetenal.com
- . **Further information obtainable from:** Department product safety. E-Mail: sida@tetenal.com
- . **1.4 Emergency telephone number:**
Poison Information Centre Germany: +49 (0) 30 - 30686 700 (English and German 24 hours)

SECTION 2: Hazards identification

- . **2.1 Classification of the substance or mixture**
- . **Classification according to Regulation (EC) No 1272/2008**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
- . **2.2 Label elements**
- . **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- . **Hazard pictograms**



GHS07

- . **Signal word** Warning
- . **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
- . **Precautionary statements**

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.
- . **Additional information:**
Contains 4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP). May produce an allergic reaction.
- . **2.3 Other hazards**
- . **Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.11.2019

version no: 3

Revision: 12.11.2019

Trade name: Eukobrom AC

. vPvB: Not applicable.

(Contd. of page 1)

SECTION 3: Composition/information on ingredients

. 3.2 Chemical characterisation: Mixtures

. **Description:** Mixture of substances listed below and with nonhazardous additions.

. **Dangerous components:**

CAS: 584-08-7	potassium carbonate	10-<25%
EINECS: 209-529-3	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
Reg.nr.: 01-2119532646-36		
CAS: 111-46-6	diethylene glycol	1-3%
EINECS: 203-872-2	⚠ Acute Tox. 4, H302	
Index number: 603-140-00-6		
CAS: 7758-02-3	potassium bromide	1-5%
EINECS: 231-830-3	⚠ Eye Irrit. 2, H319	
Reg.nr.: 01-2119962195-33		
CAS: 60-00-4	edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid	1-5%
EINECS: 200-449-4	⚠ STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Eye Irrit. 2, H319	
Index number: 607-429-00-8		
CAS: 13047-13-7	4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP)	<1%
EINECS: 235-920-3	⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	

. **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 information:** Immediately remove any clothing/shoes soiled by the product.. **After skin contact:** Immediately rinse with water.

. **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

. **After swallowing:** If symptoms persist consult doctor.

. 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, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

. 5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

Sulphur dioxide (SO₂)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

. 5.3 Advice for firefighters

. **Protective equipment:** Do not inhale explosion gases or combustion gases.

-EN-

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.11.2019

version no: 3

Revision: 12.11.2019

Trade name: Eukobrom AC

(Contd. of page 2)

SECTION 6: Accidental release measures

. 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

. 6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

. 6.3 Methods and material for containment and cleaning up:

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

Ensure adequate ventilation.

. 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 disposal information.

SECTION 7: Handling and storage

. 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

. Information about fire - and explosion protection: Protect from heat.

. 7.2 Conditions for safe storage, including any incompatibilities

. Storage:

. Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

. Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising agents.

. Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Protect from exposure to the light.

Store under lock and key and out of the reach of children.

Recommended storage temperature: 5-30°C

. 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

. Additional information about design of technical facilities: No further data; see item 7.

. 8.1 Control parameters

. Ingredients with limit values that require monitoring at the workplace:

111-46-6 diethylene glycol (1-5%)

WEL (Great Britain) Long-term value: 101 mg/m³, 23 ppm

WEEL (USA) Long-term value: 10 mg/m³

. DNELs

60-00-4 edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid

Oral Long-term - systemic effects 25 mg/kg bw/day (general population)

Inhalative Akute /short-term exposure - local effects 2.5 mg/m³ (Worker (Arbeiter))

Long-term exposure-local effects 2.5 mg/m³ (Worker (Arbeiter))

Akute-lokale Effekte 1.5 mg/m³ (Consumer (Verbraucher))

Long-term - systemic effects 1.5 mg/m³ (general population)

Long-term - local effects 1.5 mg/m³ (general population)

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.11.2019

version no: 3

Revision: 12.11.2019

Trade name: Eukobrom AC

(Contd. of page 3)

. PNECs**60-00-4 edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid**

Aquatic compartment - freshwater	2.2 mg/l (-)
Aquatic compartment - marine water	0.22 mg/l (-)
Aquatic compartment -water,intermittent releases	1.2 mg/l (-)
Terrestrial compartment -soil	0.72 mg/kg dw (-)
Sewage treatment plant (Abwasserreinigungsanlagen)	43 mg/l (Aqua Intermittent)

. Additional information: The lists valid during the making were used as basis.**. 8.2 Exposure controls****. Personal protective equipment:****. General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

. Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Ensure adequate ventilation

. Protection of hands:

Protective gloves

Impervious gloves

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.

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

. Penetration time of glove material

Glove material	breakthroug-time	layer thickness
Butyl rubber:	≥480 min	≥0,4mm
Nitrile rubber:	≥480 min	≥0,38mm
Neoprene:	≥240 min	≥0,65mm

. Eye protection:

Tightly sealed goggles

. Body protection: Protective work clothing

EN

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.11.2019

version no: 3

Revision: 12.11.2019

Trade name: Eukobrom AC

(Contd. of page 4)

SECTION 9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Colour:	Light yellow
Odour:	Recognisable
Odour threshold:	Not determined.

. pH-value at 25 °C: ~10.7

. Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

. Flash point: Not applicable.

. Flammability (solid, gas): Not applicable.

. Decomposition temperature: Not determined.

. Auto-ignition temperature: Product is not selfigniting.

. Explosive properties: Product does not present an explosion hazard.

. Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

. Vapour pressure: Not determined.

Density at 20 °C:	~1.25 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.

. Solubility in / Miscibility with water: Fully miscible.

. Partition coefficient: n-octanol/water: Not determined.

. Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

. Solvent content:

Organic solvents:	2.2 %
Water:	50-90 %
VOC (EC)	2.24 %

. 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

. 10.1 Reactivity: No further relevant information available.

. 10.2 Chemical stability

. Thermal decomposition / conditions to be avoided: Stable at environment temperature.

. 10.3 Possibility of hazardous reactions: Reacts with acids, alkalis and oxidising agents.

. 10.4 Conditions to avoid: No further relevant information available.

. 10.5 Incompatible materials: Under certain fire conditions, traces of other toxic gases cannot be excluded.

. 10.6 Hazardous decomposition products:

Irritant gases/vapours

(Contd. on page 6)

EN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.11.2019

version no: 3

Revision: 12.11.2019

Trade name: Eukobrom AC

Carbon monoxide and carbon dioxide

(Contd. of page 5)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

. **LD/LC50 values relevant for classification:**

584-08-7 potassium carbonate

Oral LD50 >2000 mg/kg (rat)

111-46-6 diethylene glycol

Oral LD50 12565 mg/kg (rat)

7758-02-3 potassium bromide

Oral LD50 3070 mg/kg (rat)

60-00-4 edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid

Oral LD50 2000-5000 mg/kg (rat)

Inhalative LC50 6h: 1000-5000 mg/l (rat)

13047-13-7 4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP)

Oral LD50 566 mg/kg (rat)

. **Primary irritant effect:**

. **Skin corrosion/irritation**

Causes skin irritation.

. **Serious eye damage/irritation**

Causes serious eye irritation.

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

. **Acute effects (acute toxicity, irritation and corrosivity)**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

. **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

. **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.

. **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.

SECTION 12: Ecological information

. **12.1 Toxicity**

. **Aquatic toxicity:**

111-46-6 diethylene glycol

EC50 24h: >1000 mg/l (daphnia magna (Water flea))

LC50 96h: >32000 mg/l (Invertebrates)

7758-02-3 potassium bromide

EC50 24h: 1150 mg/l (daphnia magna (Water flea))

60-00-4 edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid

EC50 24h: >100 mg/l (daphnia magna (Water flea))

48h: >100 mg/l (Invertebrates)

13047-13-7 4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP)

LC50 1-10 mg/l (fish)

. **12.2 Persistence and degradability** No further relevant information available.

. **12.3 Bioaccumulative potential** No further relevant information available.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.11.2019

version no: 3

Revision: 12.11.2019

Trade name: Eukobrom AC

(Contd. of page 6)

- . **12.4 Mobility in soil** No further relevant information available.
- . **Additional ecological information:**
- . **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.
- . **12.5 Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.
- . **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- . **13.1 Waste treatment methods**
- . **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- . **European waste catalogue**
09 01 01* water-based developer and activator solutions
- . **Uncleaned packaging:**
- . **Recommendation:** Disposal must be made according to official regulations.
- . **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|--|-----------------|
| . 14.1 UN-Number | Void |
| . ADR, ADN, IMDG, IATA | Void |
| . 14.2 UN proper shipping name | Void |
| . ADR, ADN, IMDG, IATA | Void |
| . 14.3 Transport hazard class(es) | Void |
| . ADR, ADN, IMDG, IATA | Void |
| . Class | Void |
| . 14.4 Packing group | Void |
| . ADR, IMDG, IATA | Void |
| . 14.5 Environmental hazards: | No |
| . Marine pollutant: | No |
| . 14.6 Special precautions for user | Not applicable. |
| . 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| . UN "Model Regulation": | Void |

SECTION 15: Regulatory information

- . **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- . **Labelling according to Regulation (EC) No 1272/2008** GHS label elements
- . **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- . **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

-EN-

(Contd. on page 8)

Safety data sheet

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Trade name: Eukobrom AC

(Contd. of page 7)

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- H411 Toxic to aquatic life with long lasting effects.

Contact: E: sida@tetenal.com

Abbreviations and acronyms:

- ADR: Accord européen sur le transport 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 Harmonised System of Classification and Labelling of Chemicals
- 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)
- VOC: Volatile Organic Compounds (USA, EU)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

- EN -