

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

### 1.1. Product identifier

Name of product Bordnet  
414890

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

Recommended intended purpose(s)  
Alkaline cleaner

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

Manufacturer/distributor BAYROL Deutschland GmbH  
Robert-Koch-Str. 4, D-82152 Planegg  
Phone +49 (0) 89 85701-0

### Advice

E-mail (competent person):  
ASchwarzenboeck@bayrol.eu

### 1.4. Emergency telephone number

NCEC, Phone (+44)(0)1865407333

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Skin Irrit. 2	H315
Eye Irrit. 2	H319

### Hazard Statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



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.

P280	Wear protective gloves/eye protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311	IF exposed or concerned: Call a POISON CENTER/doctor.
P501	Dispose of contents/ container to an approved waste disposal plant.

**Hazardous ingredients for labeling**

potassium-hydroxide

**2.3. Other hazards**
**Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**! SECTION 3: Composition/ information on ingredients**
**3.1. Substances**

not applicable

**3.2. Mixtures**
**! Hazardous ingredients**

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
111-76-2	203-905-0	2-butoxyethanol	< 10	Acute Tox. 4, H332 / Acute Tox. 4, H312 / Acute Tox. 4, H302 / Eye Irrit. 2, H319 / Skin Irrit. 2, H315
1310-58-3	215-181-3	potassium-hydroxide	< 2	Acute Tox. 4, H302 / Skin Corr. 1A, H314
37971-36-1	253-733-5	2-Phosphonobutane-1,2,4-tricarboxylic acid	2,5	Met. korr. 1, H290 / Eye Irrit. 2, H319

**REACH**

CAS No	Name	REACH registration number
111-76-2	2-butoxyethanol	01-2119475108-36-XXXX
1310-58-3	potassium-hydroxide	01-2119487136-33-XXXX
37971-36-1	2-Phosphonobutane-1,2,4-tricarboxylic acid	01-2119436643-39-XXXX

**Additional advice**

Neutralisationsreaktion

**Labelling for contents according to regulation (EC) No 648/2004, annex VII**

LIMONENE (CAS 5989-27-5)

less than 5 % anionic surfactants

less than 5 % polycarboxylates

perfumes

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

Remove contaminated soaked clothing immediately.

Symptoms of poisoning may not occur for hours, therefore medical supervision for at least 48 hours necessary.

Adhere to personal protective measures when giving first aid.

**In case of inhalation**

Remove the casualty into fresh air and keep him immobile.

In the event of symptoms refer for medical treatment.

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**In case of skin contact**

In case of contact with skin wash off immediately with plenty of water.  
Consult a doctor if skin irritation persists.

**In case of eye contact**

Rinse immediately with plenty of water for at least 15 minutes.  
Keep eye wide open while rinsing.  
Refer to medical treatment.

**In case of ingestion**

Do not induce vomiting.  
Refer to medical treatment.  
Rinse out mouth and give plenty of water to drink.

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

**Physician's information / possible dangers**

risk of strong eye injuries

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

**Treatment (Advice to doctor)**

Treat symptoms.

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

water

Product does not burn, fire-extinguishing activities according to surrounding.

**5.2. Special hazards arising from the substance or mixture**

No information available.

**5.3. Advice for firefighters**

**Special protective equipment for fire-fighters**

Use breathing apparatus with independent air supply.

Wear full protective clothing.

**Additional information**

Cool endangered containers with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**

Use personal protective clothing.

**6.2. Environmental precautions**

Do not discharge into the drains or bodies of water..

**6.3. Methods and material for containment and cleaning up**

Flush away residues with water.

**6.4. Reference to other sections**

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

Emergency telephone number: see section 1

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

No special measures necessary if used correctly.

#### General protective measures

Avoid contact with eyes and skin

#### Hygiene measures

Do not eat or drink when working.

Keep away from food and drink.

Wash hands before breaks and after work.

#### Advice on protection against fire and explosion

The product is not combustible.

No special measures necessary.

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

#### Requirements for storage rooms and vessels

Keep only in original container.

#### Advice on storage compatibility

Do not store together with animal feedstuffs.

Do not store together with food.

#### Further information on storage conditions

Keep container tightly closed and store at cool and aired place.

#### Information on storage stability

Storage time: 5 years.

### 7.3. Specific end use(s)

#### Recommendation(s) for intended use

See section 1.2

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	Code	[mg/m <sup>3</sup> ]	[ppm]	Remark
111-76-2	2-butoxyethanol	8 hours	98	20	skin
		Short-term	246	50	

### 8.2. Exposure controls

#### Respiratory protection

Breathing apparatus in the event of aerosol or mist formation.

#### Hand protection

chemical-resistant gloves

Suitable materials (recommended: protection index 6, >480 minutes permeation time according to EN 374)

Nitrile-butadiene rubber (NBR) - 0.4 mm layer thickness

Butyl rubber (butyl) - 0.7mm layer thickness

In view of the many different types, the manufacturers' directions for use must be followed

#### Eye protection

tightly fitting goggles

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b> liquid	<b>Colour</b> colourless	<b>Odour</b> sweetish
<b>Odour threshold</b> not determined		

### Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
<b>pH value</b>	9,8	20 °C	100 g/l	potentiometric	
<b>Boiling temperature / boiling range</b>	not determined				
<b>Melting point / Freezing point</b>	not determined				
<b>Flash point</b>					No flash point below 100°C.
<b>Vapourisation rate</b>	not determined				
<b>Flammable (solid)</b>	not determined				
<b>Flammability (gas)</b>	not determined				
<b>Ignition temperature</b>	not determined				
<b>Self ignition temperature</b>	not determined				
<b>Lower explosion limit</b>	not determined				
<b>Upper explosion limit</b>	not determined				
<b>Vapour pressure</b>	not determined				
<b>Relative density</b>	1,036 g/cm <sup>3</sup>	20 °C			
<b>Vapour density</b>	not determined				
<b>Solubility in water</b>					multimiscible
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	not determined				
<b>Decomposition temperature</b>	not determined				
<b>Viscosity</b>	not determined				

**Oxidising properties**

No information available.

**Explosive properties**

No information available.

**9.2. Other information**

No information available.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No information available.

**10.2. Chemical stability**

No information available.

**10.3. Possibility of hazardous reactions**

Reactions with strong acids.

Reactions with base metals, with evolution of hydrogen.

**10.4. Conditions to avoid**

No information available.

**10.5. Incompatible materials**

**Substances to avoid**

Acid

**10.6. Hazardous decomposition products**

Carbon monoxide and carbon dioxide.

**Thermal decomposition**

Remark No decomposition if used as directed.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
<b>LD50 acute oral</b>	> 2000 mg/kg	rat		
<b>LD50 acute dermal</b>	> 2000 mg/kg	rabbit		
<b>LC50 acute inhalation</b>	> 20 mg/l (4 h)	rat		
<b>Skin irritation</b>	irritant			
<b>Eye irritation</b>	irritant - risk of strong eye injuries			

**Subacute Toxicity - Carcinogenicity**

	Value	Species	Method	Validation
<b>Mutagenicity</b>	No data available			
<b>Reproduction-Toxicity</b>	No data available			
<b>Carcinogenicity</b>	No data available			

**Experiences made from practice**

Irritates mucous membranes.

**Additional information**

The declarations of toxicology refer to main component.

**SECTION 12: Ecological information**
**12.1. Toxicity**

No information available.

**12.2. Persistence and degradability**

	Elimination rate	Method of analysis	Method	Validation
<b>Biological degradability</b>	> 90 %			
	The organic component of the product is biodegradable.			

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Other adverse effects**
**Behaviour in sewage plant**

The product is an alkaline solution. Neutralization is normally necessary before waste water is discharged into sewage treatment plants.

**! SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**! Waste code No.**

16 05 09

**Name of waste**

discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

**! Recommendations for the product**

Remove in accordance with local official regulations.

Dispose of as hazardous waste.

The product should not be allowed to enter drains, water courses or the soil.

**Recommendations for packaging**

Untamated packaging may be taken for recycling.

**Recommended cleansing agent**

Water

## SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
<b>14.1. UN number</b>	1814	1814	1814
<b>14.2. UN proper shipping name</b>	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION	Potassium hydroxide solution
<b>14.3. Transport hazard class(es)</b>	8	8	8
<b>14.4. Packing group</b>	III	III	III
<b>14.5. Environmental hazards</b>	No	No	No

### 14.6. Special precautions for user

No information available.

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

No information available.

### Land and inland navigation transport ADR/RID

Hazard label(s) 8

tunnel restriction code E

Classification code C5

## ! SECTION 15: Regulatory information

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

#### ! Other regulations (EU)

Regulation (EU) 1272/2008 (CLP), Regulation (EU) 1907/2006 (REACH), DECISION 2000/532/EG (list of wastes)  
Regulation (EC) No 648/2004 (Detergents regulation).

#### VOC standard

VOC content 5 %

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## ! SECTION 16: Other information

### Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

### Further information

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 4.5

### Sources of key data used

Results of own researches and examinations

Literature informations

Toxicity studies, NIOSH-Tox-Data

National legislation and regulation



H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.