

# SAFETY DATA SHEET



according to Regulation (EC) No. 1907/2006

## DEVELOPER / CAUSTIC SODA MACROPEARLS

Version 1.0

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

### 1.1. Product identifier

Trade name : Developer / Caustic Soda Macropearls  
Article-No. : E100, E250  
Substance name : sodium hydroxide  
Index-No. : 011-002-00-6  
C&L-No. : 02-2119752469-26-0000  
CAS-No. : 1310-73-2  
EC-No. : 215-185-5  
Registration number : 01-2119457892-27-xxxx

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

Use of the Substance/Mixture : Identified use: See table in front of appendix for a complete overview of identified uses.  
Uses advised against : At this moment we have not identified any uses advised against

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

Company : Kemo-Electronic GmbH  
Leher-Landstraße 20  
27607 Langen  
Telephone : +49 (0)4743 9338-0  
Telefax : +49 (0)4743 9338-22  
E-mail address : kemo-electronic@t-online.de  
Responsible/issuing person : Umwelt / Sicherheit

### 1.4. Emergency telephone number

Emergency telephone number : +49 (0)208-7828-0 Available 24h/7d

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements

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Corrosive to metals	Category 1	---	H290
Skin corrosion/irritation	Category 1A	---	H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

### Classification according to EU Directives 67/548/EEC or 1999/45/EC

Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
Corrosive (C)	R35

For the full text of the R-phrases mentioned in this Section, see Section 16.

### Most important adverse effects

- Human Health : See section 11 for toxicological information.  
No further information available.
- Physical and chemical hazards : See section 9 for physicochemical information., No further information available.
- Potential environmental effects : See section 12 for environmental information.  
No further information available.

## 2.2. Label elements

### Labelling according to Regulation (EC) No 1272/2008

Hazard symbols :



Signal word : Danger

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

Precautionary statements

Prevention : P260 Do not breathe dust/ fume/ gas/ mist/  
vapours/ spray.  
P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/  
eye protection/ face protection.

Response : P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do  
NOT induce vomiting.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with  
water for several minutes. Remove contact

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lenses, if present and easy to do. Continue rinsing.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

### Hazardous components which must be listed on the label:

- sodium hydroxide

### 2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.  
No other information is available.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)		Classification (67/548/EEC)
		Hazard class / Hazard category	Hazard statements	
<b>sodium hydroxide</b>				
Index-No. : 011-002-00-6		Met. Corr.1	H290	Corrosive; C; R35
CAS-No. : 1310-73-2		Skin Corr.1A	H314	
EC-No. : 215-185-5	<= 100			
Registration : 01-2119457892-27-xxxx				
C&L-No. : 02-2119752469-26-0000				

For the full text of the R-phrases mentioned in this Section, see Section 16.  
For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- General advice : Take off contaminated clothing and shoes immediately.
- If inhaled : In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

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In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.

If swallowed : Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately. If a person vomits when lying on his back, place him in the recovery position.

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

Symptoms : No information available.

Effects : No information available.

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

Treatment : Treat symptomatically.No further information available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

Unsuitable extinguishing media : No information available.

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

Specific hazards during firefighting : Forms slippery/greasy layers with water.

### 5.3. Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.Wear appropriate body protection (full protective suit)

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment. Keep away unprotected persons. Avoid dust formation. Avoid contact with the skin and the eyes. Do not breathe dust. For personal protection see section 8.

### 6.2. Environmental precautions

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

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precautions Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up : Use mechanical handling equipment. Keep in suitable, closed containers for disposal.

Further information : Danger of slipping if spilled Treat recovered material as described in the section "Disposal considerations".

### 6.4. Reference to other sections

For personal protection see section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Advice on safe handling : Keep container tightly closed. Use personal protective equipment. Avoid dust formation. Provide sufficient air exchange and/or exhaust in work rooms. Avoid contact with the skin and the eyes. Do not breathe dust. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off contaminated clothing and shoes immediately.

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

Requirements for storage areas and containers : Keep in an area equipped with alkali resistant flooring. Store in original container.

Advice on protection against fire and explosion : The product is not flammable. Normal measures for preventive fire protection.

Further information on storage conditions : Keep tightly closed in a dry and cool place. Product is hygroscopic.

Advice on common storage : Keep away from food, drink and animal feedingstuffs. Do not store together with acids and ammonium salts. Materials to avoid: Organic peroxides

German storage class : 8B: Non-combustible substances, corrosive

### 7.3. Specific end use(s)

Specific use(s) : Identified use: See table in front of appendix for a complete overview of identified uses.

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### Other Occupational Exposure Limit Values

(Additional) Information : Contains no substances with occupational exposure limit values.

<b>Component:</b>	<b>sodium hydroxide</b>	<b>CAS-No.</b>
		<b>1310-73-2</b>

#### Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

DNEL  
Workers, Long-term - local effects, Inhalation : 1,0 mg/m3

DNEL  
Consumers, Long-term - local effects, Inhalation : 1,0 mg/m3

#### 8.2. Exposure controls

##### Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

##### Personal protective equipment

###### Respiratory protection

Advice : Required if dust is released  
Recommended Filter type:  
Particle filter:P2  
Particle filter:P3

###### Hand protection

Advice : The glove material has to be impermeable and resistant to the product / the substance / the preparation.  
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).  
The following materials are suitable:  
fluorocarbon rubber  
polychloroprene  
natural rubber  
butyl-rubber  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.  
Protective gloves should be replaced at first signs of wear.

###### Eye protection

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Advice : Tightly fitting safety goggles

*Skin and body protection*

Advice : impervious clothing

### Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.  
Avoid subsoil penetration.  
If the product contaminates rivers and lakes or drains inform respective authorities.

## SECTION 9: Physical and chemical properties

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

Form : solid

Colour : white

Odour : odourless

Odour Threshold : no data available

pH : > 14 (100 g/l; 20 °C)

Melting point/range : ca. 319 - 322 °C

Boiling point/boiling range : 1.390 °C

Flash point : not applicable

Evaporation rate : not applicable

Flammability (solid, gas) : not applicable

Upper explosion limit : not applicable

Lower explosion limit : not applicable

Vapour pressure : ca. 3,5 hPa (800 °C)

Relative vapour density : no data available

Density : ca. 2,13 g/cm<sup>3</sup> (20 °C)

Water solubility : ca. 1090 - 1260 g/l (20 °C)

Partition coefficient: n-octanol/water : no data available

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Auto-ignition temperature	:	not applicable
Thermal decomposition	:	no data available
Viscosity, dynamic	:	not applicable
Viscosity, kinematic	:	not applicable
Explosivity	:	Product is not explosive.
Oxidizing properties	:	not oxidising

### 9.2. Other information

Corrosion to metals	:	Corrosive to metals
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Advice	:	No information available.
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### 10.2. Chemical stability

Advice	:	No decomposition if stored and applied as directed. No further information available.
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### 10.3. Possibility of hazardous reactions

Hazardous reactions	:	Gives off hydrogen by reaction with base metals (zinc, aluminium). Reacts exothermic with water Reacts exothermic with acids.
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### 10.4. Conditions to avoid

Conditions to avoid	:	Protect from humidity and keep away from water. Product is hygroscopic.
Thermal decomposition	:	no data available

### 10.5. Incompatible materials

Materials to avoid	:	Materials to avoid: Acids, Light metals, Water, Alcohols
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	:	no data available
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

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<b>Component:</b>	<b>sodium hydroxide</b>	<b>CAS-No.</b>
		<b>1310-73-2</b>

## Acute toxicity

### Oral

no data available

### Inhalation

no data available

### Dermal

no data available

## Irritation

### Skin

Result : Very corrosive (rabbit)

### Eyes

Result : Very corrosive (rabbit)  
Risk of serious damage to eyes.

## Sensitisation

Result : Patch test on human volunteers did not demonstrate sensitisation properties.  
Did not cause sensitisation on laboratory animals.

## CMR effects

### CMR Properties

Carcinogenicity : No experimental references for cancerogenity available.

Mutagenicity : In vitro tests did not show mutagenic effects  
In vivo tests did not show mutagenic effects

Teratogenicity : no data available

Reproductive toxicity : Not expected to be impair fertility.

## Specific Target Organ Toxicity

### Single exposure

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remark : The substance or mixture is not classified as specific target organ toxicant, single exposure.

### Repeated exposure

remark : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Other toxic properties

#### Aspiration hazard

No aspiration toxicity classification

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>Component:</b>	<b>sodium hydroxide</b>	<b>CAS-No.</b>
		<b>1310-73-2</b>
<b>Acute toxicity</b>		
<b>Fish</b>		
LC50	: 125 mg/l (Gambusia affinis; 96 h)	
<b>Toxicity to daphnia and other aquatic invertebrates</b>		
EC50	: 76 mg/l (Daphnia magna; 24 h)	
<b>algae</b>		
no data available		
<b>Bacteria</b>		
EC50	: 22 mg/l (Photobacterium phosphoreum; 15 min)	

### 12.2. Persistence and degradability

<b>Component:</b>	<b>sodium hydroxide</b>	<b>CAS-No.</b>
		<b>1310-73-2</b>
<b>Persistence and degradability</b>		
<b>Persistence</b>		

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Result : no data available

### Biodegradability

Result : The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3. Bioaccumulative potential

<b>Component:</b>	<b>sodium hydroxide</b>	<b>CAS-No.</b>
		<b>1310-73-2</b>
<b>Bioaccumulation</b>		

Result : Does not bioaccumulate.

### 12.4. Mobility in soil

<b>Component:</b>	<b>sodium hydroxide</b>	<b>CAS-No.</b>
		<b>1310-73-2</b>
<b>Mobility</b>		

Water : The product is mobile in water environment.

### 12.5. Results of PBT and vPvB assessment

<b>Component:</b>	<b>sodium hydroxide</b>	<b>CAS-No.</b>
		<b>1310-73-2</b>
<b>Results of PBT and vPvB assessment</b>		

Result : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

### 12.6. Other adverse effects

<b>Component:</b>	<b>sodium hydroxide</b>	<b>CAS-No.</b>
		<b>1310-73-2</b>
<b>Additional ecological information</b>		

Result : Harmful effects to aquatic organisms due to pH-shift. Neutralization is normally necessary before waste water is discharged into water treatment plants.

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Do not flush into surface water or sanitary sewer system.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

- Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.
- Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
- European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

## SECTION 14: Transport information

### 14.1. UN number

1823

### 14.2. UN proper shipping name

ADR : SODIUM HYDROXIDE, SOLID  
RID : SODIUM HYDROXIDE, SOLID  
IMDG : SODIUM HYDROXIDE, SOLID

### 14.3. Transport hazard class(es)

ADR-Class : 8  
(Labels; Classification Code; Hazard identification No; Tunnel restriction code) 8; C6; 80; (E)  
RID-Class : 8  
(Labels; Classification Code; Hazard identification No) 8; C6; 80  
IMDG-Class : 8  
(Labels; EmS) 8; F-A, S-B

### 14.4. Packaging group

ADR : II  
RID : II  
IMDG : II

### 14.5. Environmental hazards

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Labeling according to 5.2.1.8 ADR : no  
Labeling according to 5.2.1.8 RID : no  
Labeling according to 5.2.1.6.3 IMDG : no  
Classification as environmentally hazardous according to 2.9.3 IMDG : no  
Classified as "P" according to 2.10 IMDG : no

### 14.6. Special precautions for user

Note : not applicable

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

IMDG : Not applicable.

## SECTION 15: Regulatory information

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

WGK (DE) : sodium hydroxide: WGK Identification Number: 142; WGK:1; slightly water endangering; Classification source is Annex 2.  
Major Accident Hazard Legislation : Does not fall under the German StörfallV. -  
Other regulations : Occupational restrictions: Take note of Dir 92/85/EEC on the safety and health of pregnant workers at work and of Dir 94/33/EC on the protection of young people at work.

#### sodium hydroxide

EU. Regulation No 1451/2007 [Biocides], Annex I, Active substances identified as existing (OJ (L 325)  
Listed EC Number: 215-185-5

#### Notification status

##### sodium hydroxide:

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
EINECS	YES	215-185-5
ENCS (JP)	YES	(2)-1972
ENCS (JP)	YES	(1)-410
INV (CN)	YES	
ISHL (JP)	YES	(2)-1972
ISHL (JP)	YES	(1)-410
KECI (KR)	YES	KE-31487
KECI (KR)	YES	97-1-136
NZIOC	YES	HSR001547
PICCS (PH)	YES	
TSCA	YES	

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IECSC

YES

## 15.2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### Full text of R-phrases referred to under sections 2 and 3.

R35 Causes severe burns.

### Full text of H-Statements referred to under sections 2 and 3.

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

### Further information

Key literature references : Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.

Other information : Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use. The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.  
The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

|| Indicates updated section.