

**SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006****Caustic Soda pearl/solid**Version 2.0  
Revision Date 2011/02/15Print Date 2011/02/15  
MSDS code: MCSF001**1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name : Caustic Soda pearl/solid  
Index-No. : 011-002-00-6  
CAS-No. : 1310-73-2  
EC-No. : 215-185-5

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

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.

Recommended restrictions on use : At that time we do not yet have information on use restrictions. They will be included in this safety data sheet when available.

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

Company : Brenntag UK & Ireland  
Albion House, Rawdon Park  
GB LS19 7XX Leeds Yeadon  
Telephone : 0113 3879 200  
Telefax : 0113 3879 280  
E-mail address : msds@brenntag.co.uk

**1.4. Emergency telephone number**

Emergency telephone number : Emergency only telephone number (open 24 hours):  
01865 407333 (N.C.E.C. Culham)

**2. Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008****REGULATION (EC) No 1272/2008**

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Hazard class	Hazard category	Target Organs	Hazard statements
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.
Physical and chemical hazards	:	See section 9 for physicochemical information.
Potential environmental effects	:	See section 12 for environmental information.

**2.2. Label elements****Labelling according to Regulation (EC) No 1272/2008**

Hazard symbols	:	
Signal word	:	Danger
Hazard statements	:	H314 Causes severe skin burns and eye damage.
Precautionary statements	:	
Prevention	:	P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

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Response : P280                   Wear protective gloves/ eye protection/ face protection.  
 P264                   Wash hands thoroughly after handling.  
 : P301 + P330 + P331    IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
 P303 + P361 + P353    IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ 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.

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

|| • sodium hydroxide

**2.3. Other hazards**

No other information is available.

**3. Composition/information on ingredients****3.1. Substances**

Chemical Name	Identification Number	Amount [%]
sodium hydroxide	Index-No.	: 011-002-00-6
	CAS-No.	: 1310-73-2
	EC-No.	: 215-185-5
		<= 100

**4. First aid measures****4.1 Description of first aid measures**

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<p>General advice</p>	<p>: Take off contaminated clothing and shoes immediately.</p>
<p>If inhaled</p>	<p>: 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.</p>
<p>In case of skin contact</p>	<p>: 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.</p>
<p>In case of eye contact</p>	<p>: 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.</p>
<p>If swallowed</p>	<p>: 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.</p>

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

<p>Symptoms</p>	<p>: See Section 11 for more detailed information on health effects and symptoms.</p>
<p>Effects</p>	<p>: See Section 11 for more detailed information on health effects and symptoms.</p>

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

<p>Treatment</p>	<p>: Treat symptomatically. No further information available.</p>
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**5. Fire-fighting measures**

**5.1. Extinguishing media**

<p>Suitable extinguishing media</p>	<p>: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.</p>
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Unsuitable extinguishing media : No information available.

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

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

**5.3. Advice for firefighters**

Special protective equipment for fire-fighters : 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.

**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 precautions : 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.

**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".

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**6.4 Reference to other sections**

- || See Section 1 for emergency contact information.
- || See Section 8 for information on personal protective equipment.
- || See Section 13 for waste treatment information.

**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

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

#### **7.3 Specific end uses**

Specific use(s) : No information available.

### **8. Exposure controls/personal protection**

#### **8.1. Control parameters**

<b>Product: Caustic Soda pearl/solid</b>	<b>CAS-No. 1310-73-2</b>
<b>Derived No Effect Level</b>	

Application Area : Workers  
Exposure routes : Inhalation  
Value : 1 mg/m<sup>3</sup>  
Remarks : Short-term exposition

Application Area : Population  
Exposure routes : Inhalation  
Value : 1 mg/m<sup>3</sup>  
Remarks : Long-term exposition

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

Regulatory Basis : UK. EH40 Workplace Exposure Limits (WELs)  
Regulatory List : EH40 WEL  
Value type : Short Term Exposure Limit (STEL):  
Value : 2 mg/m<sup>3</sup>

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MSDS code: MCSF001**8.2. Exposure controls****Engineering measures**

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 trough 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*

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.



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If the product contaminates rivers and lakes or drains inform respective authorities.

**9. Physical and chemical properties**

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

Form	: crystalline
Colour	: white opaque
Odour	: characteristic faint
Odour Threshold	: no data available
pH	: 14 100 g/l
Melting point/range	: 318 °C
Boiling point/boiling range	: 1,390 °C
Flash point	: does not flash
Evaporation rate	: no data available
Flammability (solid, gas)	: does not ignite
Upper explosion limit	: not applicable
Lower explosion limit	: not applicable
Vapour pressure	: 1 hPa 739 °C
Relative vapour density	: no data available
Density	: 1.1 - 1.2 g/cm <sup>3</sup>
Water solubility	: 1,090 g/l 20 °C
Partition coefficient: n-octanol/water	: no data available

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Ignition temperature	: not applicable
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Explosivity	: Product is not explosive.
Oxidizing properties	: no data available

**9.2 Other information**

No further information available.

**10. Stability and reactivity**

**10.1. Reactivity**

|| Advice : Reacts with acids.  
Gives off hydrogen by reaction with base metals (zinc, aluminium).

**10.2. Chemical stability**

|| Advice : Stable under normal conditions.

**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.

**10.4. Conditions to avoid**

|| Conditions to avoid : Protect from humidity and keep away from water.  
Product is hygroscopic.

Thermal decomposition :  
Note : no data available

**10.5. Incompatible materials**

|| Materials to avoid : Materials to avoid:  
Acids  
Light metals  
Water

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Alcohols

**10.6. Hazardous decomposition products**

Hazardous decomposition products : No information available.

**11. Toxicological information****11.1. Information on toxicological effects**

Component: sodium hydroxide		CAS-No. 1310-73-2
<b>Acute toxicity</b>		
<b>Inhalation</b>		
Remarks	:	Inhalation may cause pain in respiratory system, sneezing, coughing and difficulty in breathing. Risk for pulmonary edema by high concentration.
<b>Irritation</b>		
<b>Skin</b>		
Species	:	rabbit
Result	:	Very corrosive
<b>Eyes</b>		
Species	:	rabbit
Result	:	Very corrosive
Remarks	:	Risk of serious damage to eyes.
<b>Sensitisation</b>		
Remarks	:	Patch test on human volunteers did not demonstrate sensitization properties.

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**Further information**

Other relevant toxicity : All numerical values for acute toxicity are calculated on the pure substances.

**12. Ecological information**

**12.1. Toxicity**

**Component: sodium hydroxide**

**CAS-No.  
1310-73-2**

**Acute toxicity**

**Fish**

Species : *Gambusia affinis*  
Exposure Time : 96 h  
Value type : LC50  
Value : 125 mg/l

Species : *Poecilia reticulata*  
Exposure Time : 24 h  
Value type : LC50  
Value : 145 mg/l

**Toxicity to daphnia and other aquatic invertebrates.**

Species : *Daphnia magna*  
Exposure time : 24 h  
Value type : EC50  
Value : 76 mg/l

**Bacteria**

Species : *Photobacterium phosphoreum*  
Exposure time : 15 min  
Value type : EC50

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Value : 22 mg/l

**12.2. Persistence and degradability**

<b>Product: Caustic Soda pearl/solid</b>	<b>CAS-No. 1310-73-2</b>
<b>Persistence and degradability</b>	
<b>Persistence</b>	

Remarks : no data available

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

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

**12.3. Bioaccumulative potential**

<b>Product: Caustic Soda pearl/solid</b>	<b>CAS-No. 1310-73-2</b>
<b>Bioaccumulation</b>	

Remarks : Does not bioaccumulate.

**12.4. Mobility in soil**

<b>Product: Caustic Soda pearl/solid</b>	<b>CAS-No. 1310-73-2</b>
<b>Mobility</b>	

Remarks : no data available

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

<b>Product: Caustic Soda pearl/solid</b>	<b>CAS-No. 1310-73-2</b>
<b>Results of PBT and vPvB assessment</b>	

Remarks : no data available

**12.6. Other adverse effects**

<b>Product: Caustic Soda pearl/solid</b>	<b>CAS-No. 1310-73-2</b>
<b>Additional ecological information</b>	

Remarks : Harmful effects to aquatic organisms due to pH-shift.  
Neutralization is normally necessary before waste water is discharged into water treatment plants.  
Do not flush into surface water or sanitary sewer system.

**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.

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**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 :  
(Labels; Classification Code; Hazard identification No; Tunnel restriction code) 8  
8; C6; 80; (E)

|| RID-Class :  
(Labels; Classification Code; Hazard identification No) 8  
8; C6; 80

|| IMDG-Class :  
(Labels; EmS) 8  
8; F-A, S-B

**14.4. Packaging group**

|| ADR : II

|| RID : II

|| IMDG : II

**14.5. Environmental hazards**

Labeling according to 5.2.1.8 ADR : no  
Labeling according to 5.2.1.8 RID : no

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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**

Not applicable.

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

IMDG : Not applicable.

**15. Regulatory information**

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

**sodium hydroxide:**

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
NV (CN)	YES	
ENCS (JP)	YES	(1)-410
SHL (JP)	YES	(1)-410
TSCA	YES	
EINECS	YES	215-185-5
KECI (KR)	YES	97-1-136
KECI (KR)	YES	KE-31487
PICCS (PH)	YES	

**15.2. Chemical Safety Assessment**

Currently we do not have any Information from our supplier about this.

**16. Other information**



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**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.**

H314 Causes severe skin burns and eye damage.

**Further information**

|| 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.