



SAFETY DATA SHEET

Sodium hydroxide (Caustic Soda Pearl)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name Sodium hydroxide (Caustic Soda Pearl)
REACH Registration number 01-2119457892-27-XXXX
REACH Registration notes mono-constituent substance

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

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Barrettine
Barrettine Works
St Ivel Way
Warmley
Bristol
BS30 8TY
Tel: 0117 960 0060
Fax: 0117 935 2437
sales@barrettine.co.uk

1.4. Emergency telephone number

+44 (0) 1270 502 891

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Met. Corr. 1 - H290
Human health	Skin Corr. 1A - H314; Eye Dam. 1 - H318
Environment	Not classified.

Classification (67/548/EEC)

C;R35.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health

Corrosive. Prolonged contact causes serious eye and tissue damage.

Environment

The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See section 12 as well.

Physical and Chemical Hazards

Resultant solutions are alkaline (basic) and corrosive to some metals.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008

Sodium hydroxide



Signal Word	Danger	
Hazard Statements	H290	May be corrosive to metals.
	H314	Causes severe skin burns and eye damage.
	H318	Causes serious eye damage.
Precautionary Statements	P280	Wear protective gloves, eye and face protection.
	P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P310	Immediately call a POISON CENTER or doctor/physician.
	P320	Specific treatment is urgent (see medical advice on this label).
	P501	Dispose of contents/container in accordance with national regulations.
Supplementary Precautionary Statements	P234	Keep only in original container.
	P261	Avoid breathing dust.
	P264	Wash contaminated skin thoroughly after handling.
	P363	Wash contaminated clothing before reuse.
	P405	Store locked up.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

SODIUM HYDROXIDE		>98%
CAS-No.: 1310-73-2	EC No.: 215-185-5	Registration Number: 01-2119457892-27-XXXX
Classification (EC 1272/2008)	Classification (67/548/EEC)	
Met. Corr. 1 - H290	C;R35	
Skin Corr. 1A - H314		
Eye Dam. 1 - H318		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

REACH Registration number 01-2119457892-27-XXXX
REACH Registration notes mono-constituent substance

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Immediately remove affected person from source of exposure. Provide first aid, rest, warmth and fresh air. First aiders should avoid direct contact with this product and should wear protective gloves, goggles and clothing.

Inhalation

Keep the affected person warm and at rest. Get prompt medical attention.

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Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention immediately!

Skin contact

Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact

Promptly rinse eyes with plenty of clean water while lifting the eyelids.

Continue to rinse for at least 15 minutes. Continue until the eyes are free of all traces of contamination.

Get immediate medical attention.

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

Inhalation

Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Ingestion

May cause chemical burns in mouth and throat.

Skin contact

Burning pain and severe corrosive skin damage.

Eye contact

Corneal damage.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

The product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

No hazardous decomposition products.

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

Specific hazards

The product is non-combustible. If heated, corrosive vapours may be formed.

5.3. Advice for firefighters

Protective equipment for fire-fighters

Wear self-contained breathing apparatus and full protective clothing. Keep all unnecessary people away. Fire water run-off must not be allowed to contaminate ground or enter drains, sewers or water courses. Provide bunding against fire water run-off.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing (see Section 8). Keep unnecessary people at a safe distance.

6.2. Environmental precautions

Do not allow ANY environmental contamination. Cover all drains and sewers. Avoid spreading spilled material.

6.3. Methods and material for containment and cleaning up

DO NOT TOUCH SPILLED MATERIAL! Remove by vacuuming. Place into a clearly labelled container for recovery or disposal (see section 13). Rinse site with copious amounts of water, which should not be allowed into drains, sewers or watercourses.

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6.4. Reference to other sections

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Prevent spilling, skin and eye contact. Use only with adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation of dust.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Stored containers should be routinely inspected for damage and/or leakage.

7.3. Specific end use(s)

For industrial use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
SODIUM HYDROXIDE	WEL				2 mg/m ³	

WEL = Workplace Exposure Limit.

SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL				
Industry	Inhalation.	Long Term	Local Effects	1 mg/m ³
Consumer	Inhalation.	Long Term	Local Effects	1 mg/m ³

8.2. Exposure controls

Process conditions

Provide eyewash, quick drench.

Engineering measures

Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of vapours.

Respiratory equipment

If ventilation is insufficient suitable respiratory protection must be provided.

Seek advice and recommendations of the manufacturer or supplier of equipment

Hand protection

Wear suitable protective gloves conforming to EN 374. Seek recommendations from manufacturer or supplier. After using gloves the hands should be washed and thoroughly dried and a suitable moisturiser applied. Suitable gloves may include - Nitrile. Butyl rubber.

Eye protection

Wear tightly fitting safety goggles conforming to EN 166.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated.

When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Solid
Colour	White.
Odour	Odourless.
Solubility	Soluble in water.
Initial boiling point and boiling range (°C)	1388 °C at 760 mmHg

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Melting point (°C)	323
Relative density	2.13 @ 20°C
Vapour pressure	1 Pa @ 513°C
pH-Value, Diluted Solution	>13 @ 420g/L
Flash point (°C)	
Not applicable.	
Partition Coefficient (N-Octanol/Water)	
Not relevant	

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The solution is strongly alkaline and reacts with strong acids with heat generation.

10.2. Chemical stability

Stable under normal conditions of storage and use. See section 7.

Known dangerous reactions

Avoid unintended contact with strong acids. May react violently with oxidising substances.

10.3. Possibility of hazardous reactions

Not determined.

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Water, moisture, acids and heating.

10.5. Incompatible materials

Materials To Avoid

Acids Oxidising agents. Aluminium.

10.6. Hazardous decomposition products

No hazardous decomposition products.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD50)

Data lacking.

Ignored due to low Klimisch scoring of the test methodology.

Acute Toxicity (Dermal LD50)

1350 mg/kg Rabbit

Ignored due to low Klimisch scoring of the test methodology.

Acute Toxicity (Inhalation LC50)

Data lacking.

Ignored due to low Klimisch scoring of the test methodology.

Respiratory or skin sensitisation:

Skin sensitisation

Scientifically unjustified.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Bacterial Reverse Mutation Test

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Negative.
Genotoxicity - In Vivo
Chromosome aberration:
Negative.

General information

Corrosive to all living tissue. Danger of very serious irreversible effects if swallowed - for symptoms see section 4.

Inhalation

Dust may irritate respiratory system or lungs.

Ingestion

May cause severe internal injury.

Skin contact

Brief contact may cause severe irritation. Prolonged contact may cause severe burns.

Eye contact

Risk of serious damage to eyes.

Target Organs

Skin Respiratory system, lungs

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

Acute Fish Toxicity

Discharge of large quantities may kill fish and other aquatic life due to excessive changes in pH.

Acute Toxicity - Fish

Scientifically unjustified.

Ignored due to low Klimisch scoring of the test methodology.

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 40.4 mg/l Lake water flea (*Ceriodaphnia dubia*)

Acute Toxicity - Aquatic Plants

Scientifically unjustified.

Acute Toxicity - Microorganisms

Scientifically unjustified.

12.2. Persistence and degradability

Degradability

The product solely consists of inorganic compounds which are not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

Partition coefficient

Not relevant

12.4. Mobility in soil

Mobility:

The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

High concentrations may affect water treatment processes.

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SECTION 13: DISPOSAL CONSIDERATIONS

General information

Empty unlaundered containers must be treated in the same manner as when full; labels should not be removed.

13.1. Waste treatment methods

Product is classified as hazardous waste. Disposal of waste material and empty containers must be by means of a licensed waste contractor.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	1823
UN No. (IMDG)	1823
UN No. (ICAO)	1823

14.2. UN proper shipping name

Proper Shipping Name SODIUM HYDROXIDE, SOLID

14.3. Transport hazard class(es)

ADR/RID/ADN Class	8
ADR/RID/ADN Class	Class 8: Corrosive substances.
ADR Label No.	8
IMDG Class	8
ICAO Class/Division	8
Transport Labels	



14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II
ICAO Packing group	II

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user

EMS	F-A, S-B
Emergency Action Code	2W
Hazard No. (ADR)	80
Tunnel Restriction Code	(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

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SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 SI No 716. (CHIP4).

Control of Substances Hazardous to Health Regulations (as amended). (COSHH)

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007. (CDG 2009)

Approved Code Of Practice

The Control of Substances Hazardous to Health Regulations 2002 (as amended). Approved code of practice and guidance.

Fifth Edition 2005. HSE Books, or download at: <http://www.hse.gov.uk/pubns/priced/l15.pdf>

Approved Classification and Labelling guide (Sixth edition). Chemicals (Hazard Information and Packaging for Supply)

Regulations 2009 (CHIP 4). HSE Books, or download at: <http://www.hse.gov.uk/pubns/books/l131.htm>

Guidance Notes

CHIP for everyone HSG(108).

Workplace Exposure Limits EH40.

Introduction to Local Exhaust Ventilation HS(G)37.

EU Legislation

ADR (L'Accord européen relative au transport international des marchandises dangereuses par route.)

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date 06-MAR-14

Revision 07

Supersedes date 25-SEP-10

Risk Phrases In Full

R35 Causes severe burns.

Hazard Statements In Full

H318 Causes serious eye damage.

H314 Causes severe skin burns and eye damage.

H290 May be corrosive to metals.

Disclaimer

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.