1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product name: SODIUM HYDROXIDE

REACH registered number(s): 01-2119457892-27-XXXX

Synonyms; trade names: CAUSTIC SODA ANHYDROUS, PEARL, FLAKES, CAUSTIC SODA, SODIUM HYDROXIDE CHEM PURE, CAUSTIC SODA MICROPEARL, CAUSTIC SODA MICROPRILLS FOOD GRADE, SODIUM HYDROXIDE MACRO PEARLS, SODIUM HYDROXIDE MICRO PEARLS, SODIUM HYDROXIDE MICRO PEARLS FOOD, SODIUM HYDROXIDE CHEM PURUM, SODIUM HYDROXIDE EP PELLETS, CAUSTIC SODA FLK, CAUSTIC SODA MICROPEARL, CAUSTIC SODA PEARL O&G, CAUSTIC SODA MICROPEARL SLY, CAUSTIC SODA MICROPEARL YUG, SODIUM HYDROXIDE PLT USP, CAUSTIC SODA PEARL ERS, CAUSTIC SODA GRAN PRL KSK, CAUSTIC SODA MINIPEARL CN, SOD HYDR PEL PRUISS DSM 0413585.

REACH registration number: 01-2119457892-27-XXXX

CAS number: 1310-73-2

EU index number: 011-002-00-6

EC number: 215-185-5

Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Chemical Intermediate Detergent. Soaps. For further information, see Exposure Scenario.

Company name:

Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification (EC 1272/2008):

Physical hazards: Met. Corr. 1 - H290

Health hazards: Skin Corr. 1A - H314 Eye Dam. 1 - H318

Environmental hazards: Not Classified.

[cont…]

Label elements:

EC number: 215-185-5

Hazard pictograms:

Signal word: Danger

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

Precautionary statements:
P234 Keep only in original packaging.
P260: Do not breathe dust.
P280: Wear protective gloves.
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/ container in accordance with national regulations.

Other hazards: Reactions with the following materials may generate heat: Strong acids. Water. The substance/ mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Product name: SODIUM HYDROXIDE

REACH registration number: 01-2119457892-27-XXXX

EU index number: 011-002-00-6

CAS number: 1310-73-2

EC number: 215-185-5

Ingredient notes: Acute Toxicity Estimate (oral):
LD_{50} > 500 mg/kg, Oral, Rabbit

Skin Corr. 1A	≥ 5 %
Skin Corr. 1B	≥ 2 - < 5 %
Skin Irrit. 2	≥ 0.5 - < 2 %
Eye Irrit. 2	≥ 0.5 - < 2 %

Composition comments: The data shown are in accordance with the latest EC Directives.

[cont…]

4. FIRST AID MEASURES

Description of first aid measures:

Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place. If breathing stops, provide artificial respiration. Get medical attention immediately.

Ingestion: Rinse mouth thoroughly with water. Do not induce vomiting. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes. Get medical attention immediately.

Eye contact: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

Most important symptoms and effects, both acute and delayed:

Inhalation: Dust is severely irritating to the upper respiratory system. Symptoms following overexposure may include the following: Coughing. Wheezing/breathing difficulties. May cause an asthma like shortness of breath. Sore throat. Burning sensation in mouth. Upper respiratory irritation. Tracheobronchitis, pulmonary oedema.

Ingestion: Causes severe burns. May cause burns in mucous membranes, throat, oesophagus and stomach. Symptoms following overexposure may include the following: Burning sensation in mouth. Nausea, vomiting. Vomiting of blood. Swallowing concentrated chemical may cause severe internal injury.

Skin contact: Causes severe burns. Blistering may occur. May cause serious chemical burns to the skin. Prolonged contact causes serious tissue damage.

Eye contact: Causes serious eye damage. May cause chemical eye burns. Symptoms following overexposure may include the following: Severe irritation, burning and tearing. Corneal damage. May cause permanent damage if eye is not immediately irrigated.

Indication of any immediate medical attention and special treatment needed:

Notes for the doctor : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture:

Specific hazards: Severe corrosive hazard. When heated, vapours/gases hazardous to health may be formed.

[cont…]

Advice for firefighters:

Protective actions during firefighting: Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses. Contain and collect extinguishing water.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Follow precautions for safe handling described in this safety data sheet. Keep unnecessary and unprotected personnel away from the spillage. Avoid inhalation of dust and contact with skin and eyes. Provide adequate ventilation.

Environmental precautions: Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

Methods and material for containment and cleaning up:

Methods for cleaning up: Avoid the spillage or runoff entering drains, sewers or watercourses. Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Collect and place in suitable waste disposal containers and seal securely. Clean contaminated objects and areas thoroughly, observing environmental regulations.

Reference to other sections: Wear protective clothing as described in Section 8 of this safety data sheet. Collect and dispose of spillage as indicated in Section 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

Usage precautions: Handle all packages and containers carefully to minimise spills. Avoid inhalation of dust and contact with skin and eyes. Never add water directly to this product as it may cause a vigorous reaction or boiling. Always dilute by carefully pouring the product into water. Provide adequate ventilation.

Advice on general occupational hygiene: Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities:

Storage precautions: Store in tightly-closed, original container in a dry, cool and well-ventilated place. Suitable container materials: Polyethylene. Stainless steel.

Storage class: Corrosive storage.

Specific end use(s): The identified uses for this product are detailed in Section 1.2.

[cont…]

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational exposure limits:

Short-term exposure limit (15-minute): WEL 2 mg/m^3

WEL = Workplace Exposure Limit.

DNEL:

Consumer - Inhalation; Long term local effects: 1 mg/m^3

Workers - Dermal; Short term local effects: 2 mg/kg/day

Workers - Inhalation; Short term local effects: 2 mg/m^3

Workers - Inhalation; Long term local effects: 1 mg/m^3

Exposure controls:

Protective equipment

Appropriate engineering controls: Provide adequate ventilation.

Eye/face protection: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Chemical splash goggles and face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection: The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The selected gloves should have a breakthrough time of at least 8 hours. Polyvinyl chloride (PVC). Neoprene. Rubber (natural, latex). Butyl rubber. To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection: Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures: Wash at the end of each work shift and before eating, smoking and using the toilet. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Care should be taken to avoid contact with contaminants when removing contaminated clothing. Wash contaminated clothing before reuse.

Respiratory protection: Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Particulate filter, type P2. Particulate filters should comply with European Standard EN143.

[cont…]

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:	Pellets. Flakes. Solid.
Colour:	White/off-white.
Odour:	Odourless.
Odour threshold:	No information available.
pH:	pH (diluted solution): 14 @ 10%
Melting point:	318 - 324°C
Initial boiling point and range:	1378 - 1403°C
Flash point:	Not applicable.
Evaporation rate:	No information available.
Evaporation factor:	No information available.
Flammability (solid, gas):	No information available.

Upper/lower flammability or explosive limits: No information available.

Other flammability:	No information available.
Vapour pressure:	10 hPa @ 20°C
Vapour density:	No information available.
Relative density:	2.02 - 2.13 @ 20°C
Bulk density:	1100 - 1200 kg/m³
Solubility(ies):	Completely soluble in water. Alcohols.
Partition coefficient:	No information available.
Auto-ignition temperature:	No information available.
Decomposition Temperature:	No information available.
Viscosity:	No information available.
Explosive properties:	Not considered to be explosive.

Explosive under the influence of a flame: No information available.

Oxidising properties:	Does not meet the criteria for classification as oxidising.
Refractive index:	No information available.
Particle size:	No information available.
Molecular weight:	40
Volatility:	No information available.
Saturation concentration:	No information available.
Critical temperature:	No information available.
Volatile organic compound:	No information available.

10. STABILITY AND REACTIVITY

Reactivity: The following materials may react violently with the product: Acids. Water. Organic nitro compounds.

Chemical stability: Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions: Reacts violently with strong acids. Exothermic reaction with acids. Reacts violently with water. Never add water directly to this product as it may cause a vigorous reaction or boiling. Always dilute by carefully pouring the product into water. [cont…]

Conditions to avoid: Protect from moisture. Avoid excessive heat for prolonged periods of time.

Incompatible materials:

Materials to avoid: Strong acids. Strong oxidising agents. Aluminium. Magnesium. Zinc. Other metals or alloys.

Hazardous decomposition products: Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute toxicity – oral:

Notes (oral LD_{50}): LD_{50} >500 mg/kg, Oral, Rabbit

Acute toxicity – dermal:

Notes (dermal LD_{50}): No specific test data are available.

Acute toxicity – inhalation:

Notes (inhalation LC_{50}): No specific test data are available.

Skin corrosion/irritation:

Skin corrosion/irritation: Causes severe burns.

Serious eye damage/irritation:

Serious eye damage/irritation: Causes serious eye damage.

Respiratory sensitisation:

Respiratory sensitisation: No information available.

Skin sensitisation:

Skin sensitisation: No information available.

Germ cell mutagenicity:

Genotoxicity - in vitro: No information available.

Carcinogenicity:

Carcinogenicity: No information available.

Reproductive toxicity:

Reproductive toxicity – fertility: No information available.

Specific target organ toxicity - single exposure:

STOT - single exposure: No information available.

Specific target organ toxicity - repeated exposure:

STOT - repeated exposure: No information available.

Aspiration hazard:

Aspiration hazard: No information available.

[cont…]

Toxicokinetics: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Inhalation: Dust is severely irritating to the upper respiratory system. Symptoms following overexposure may include the following: Coughing. Wheezing/breathing difficulties. May cause an asthma like shortness of breath. Sore throat. Burning sensation in mouth. Upper respiratory irritation. Tracheobronchitis, pulmonary oedema.

Ingestion: Causes severe burns. May cause burns in mucous membranes, throat, oesophagus and stomach. Symptoms following overexposure may include the following: Chemical burns. Burning sensation in mouth. Nausea, vomiting. Vomiting of blood. Swallowing concentrated chemical may cause severe internal injury.

Skin contact: Causes severe burns. Blistering may occur. May cause serious chemical burns to the skin. Prolonged contact causes serious tissue damage.

Eye contact: Causes serious eye damage. May cause chemical eye burns. Symptoms following overexposure may include the following: Severe irritation, burning and tearing. Corneal damage. May cause permanent damage if eye is not immediately irrigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity: The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.

Toxicity: The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.

Acute aquatic toxicity:

Acute toxicity – fish: LC_{50}, 96 hours: 33-189 mg/l mg/l, Fish
LC_{50}, 96 hour: 45.5 mg/l, Oncorhynchus mykiss (Rainbow trout)
LC_{50}, 96 hour: 125 mg/l, Freshwater fish
Gambusia affinis (Mosquito fish)

Acute toxicity – aquatic invertebrates: EC_{50}, 48 hours: 40-240 mg/l mg/l, Daphnia magna

Persistence and degradability: The product contains only inorganic substances which are not biodegradable.

Bioaccumulative potential: The product is not bioaccumulating.

Partition coefficient: No information available.

Mobility in soil:

Mobility: The product is water-soluble and may spread in water systems.

Results of PBT and vPvB assessment: Not applicable.

Other adverse effects: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

[cont…]

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

General information: Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.

Disposal methods: Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. TRANSPORT INFORMATION

General: Wear protective clothing as described in Section 8 of this safety data sheet.

UN number:

UN No. (ADR/RID): 1823

UN No. (IMDG): 1823

UN No. (ICAO): 1823

UN No. (ADN): 1823

UN proper shipping name:

Proper shipping name (ADR/RID): SODIUM HYDROXIDE, SOLID

Proper shipping name (IMDG): SODIUM HYDROXIDE, SOLID

Proper shipping name (ICAO): SODIUM HYDROXIDE, SOLID

Proper shipping name (ADN): SODIUM HYDROXIDE, SOLID

Transport hazard class(es):

ADR/RID class: 8

ADR/RID classification code: C6

ADR/RID label: 8

IMDG class: 8

ICAO class/division: 8

ADN class: 8

Transport labels:

Packing group:

ADR/RID packing group: II

IMDG packing group: II

ICAO packing group: II

ADN packing group: II

Environmental hazards:

Environmentally hazardous substance/marine pollutant: No.

[cont…]

Special precautions for user:

EmS: F-A, S-B

ADR transport category: 2

Emergency Action Code: 2W

Hazard Identification Number (ADR/RID): 80

Tunnel restriction code: (E)

Transport in bulk according to Annex II of MARPOL and the IBC Code:

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable.

15. REGULATORY INFORMATION

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

EU legislation: 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) (as amended).
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 (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.

Chemical safety assessment: A chemical safety assessment has been carried out.

Inventories:

EU - EINECS/ELINCS: All the ingredients are listed or exempt.

Canada - DSL/NDSL: All the ingredients are listed or exempt.
DSL

US – TSCA: All the ingredients are listed or exempt.

Australia – AICS: All the ingredients are listed or exempt.

China – IECSC: All the ingredients are listed or exempt.

Philippines - PICCS: All the ingredients are listed or exempt.

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Classification abbreviations and acronyms:

Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)

[cont…]

Abbreviations and acronyms used in the safety data sheet: ATE: Acute Toxicity Estimate.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by road

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

CAS: Chemical Abstracts Service.

DNEL: Derived No Effect Level.

IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods.

Kow: Octanol-water partition coefficient.

LC_{50}: Lethal Concentration to 50 % of a test population.

LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).

PBT: Persistent, Bioaccumulative and Toxic substance.

PNEC: Predicted No Effect Concentration.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

vPvB: Very Persistent and Very Bioaccumulative.

IARC: International Agency for Research on Cancer.

MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.

cATpE: Converted Acute Toxicity Point Estimate.

BCF: Bioconcentration Factor.

BOD: Biochemical Oxygen Demand.

EC_{50}: 50% of maximal Effective Concentration.

LOAEC: Lowest Observed Adverse Effect Concentration.

LOAEL: Lowest Observed Adverse Effect Level.

NOAEC: No Observed Adverse Effect Concentration.

NOAEL: No Observed Adverse Effect Level.

NOEC: No Observed Effect Concentration.

LOEC: Lowest Observed Effect Concentration.

DMEL: Derived Minimal Effect Level.

EL50: Exposure Limit 50

hPa: Hectopascal

LL50: Lethal Loading fifty

OECD: Organisation for Economic Co-operation and Development

POW: Octanol-water partition coefficient

SCBA: self-contained breathing apparatus

STP: Sewage Treatment Plant

VOC: Volatile Organic Compounds

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

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