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ReAgent

SODIUM HYDROXIDE PEARL TECHNICAL GRADE MSDS

According to Regulation (EC) No 1907/2006

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

PRODUCT NAME	SODIUM HYDROXIDE PEARL TECHNICAL GRADE
CAS-No.	1310-73-2
EU INDEX NO.	011-002-00-6
EC No.	215-185-5
SUPPLIER	Reagent Chemical Services 18 Aston Fields Road Whitehouse Industrial Estate Runcom Cheshire WA7 3DL T: 01928 716903 F: 01928 716425 E: info@reagent.co.uk
PRODUCT NO.	2677
APPLICATION	General chemical reagent
EMERGENCY TELEPHONE	Emergency Telephone : +44 (0) 1928 716903 Between 08.30 - 17.00

2 HAZARDS IDENTIFICATION

Causes severe burns.

CLASSIFICATION (67/548) -

ENVIRONMENT

Although not classified as harmful to the environment the material should not be discharged to land or water systems, this may have an impact on the organisms in the local area. The product is water soluble and will spread in water systems. The substance may produce a local pH change in water systems which could affect aquatic organisms. The Environment Agency or other regulatory body must be informed of large or uncontrolled discharges to land or water.

PHYSICAL AND CHEMICAL HAZARDS

Exothermic reaction with acids. Very corrosive to skin and eyes. Will corrode metal surfaces on sustained or repeated contact.

HUMAN HEALTH

Corrosive to skin and eyes. Will cause severe burns. Dusts or vapours will irritate the respiratory system with the possibility of causing burns dependent upon the extent of exposure and duration. Ingestion can result in serious internal damage and formation of scar tissue.

3 COMPOSITION/INFORMATION ON INGREDIENTS

EU INDEX NO.	011-002-00-6
EC No.	215-185-5
CAS-No.	1310-73-2

COMPOSITION COMMENTS

Sodium hydroxide pearl, free flowing unless contact with air has caused the substance to bind together.

4 FIRST-AID MEASURES

GENERAL INFORMATION

CAUTION! First aid personnel must be aware of own risk during rescue! Always consider any dangers in the vicinity before approaching to treat the casualty. First aid personnel must protect themselves with all necessary personal protective equipment during the assistance of casualties. When breathing is difficult, properly trained personnel may assist the casualty by administering oxygen. Place unconscious person on the side in the recovery position and ensure breathing can take place. Never give anything by mouth to an unconscious person. If casualty needs to be resuscitated avoid mouth to mouth contact, use a mechanical device such as a bag and mask to provide artificial respiration. If medical assistance is needed take as much detail as possible about the incident and hazardous materials involved with the casualty.

INHALATION

Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

SODIUM HYDROXIDE PEARL TECHNICAL GRADE

INGESTION

Immediately rinse mouth and drink plenty of water. Get medical attention immediately!

SKIN CONTACT

Immediately remove contaminated clothing and wash before re-use. Rinse the skin immediately with lots of water. Get medical attention immediately.

EYE CONTACT

May cause permanent damage if eye is not immediately irrigated. Promptly wash eyes with plenty of water or eye wash solution while lifting the eyelids. If possible remove any contact lenses and continue to wash. Get medical attention immediately. Continue to rinse.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

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

SPECIAL FIRE FIGHTING PROCEDURES

Prevent run-off from entering drains and watercourses.

SPECIFIC HAZARDS

Fire may create corrosive vapours or fumes.

PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of dust and vapours. Avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS

Avoid unauthorised discharge to the environment. Large spillages or uncontrolled discharge to water systems must be alerted to the Environmental Agency or other regulatory body. If spillages to land cannot be treated safely or if contamination will occur the Environment Agency must be alerted immediately. Clean up any spillages immediately, prevent material from spreading and entering drains or sewage systems. If the substance has entered a foul drain or sewage system in significant quantity to cause a hazard the local Water Treatment Company must be informed.

SPILL CLEAN UP METHODS

Avoid dust formation. Collect with scoop or shovel if possible to do so safely, otherwise mix with sand or other inert material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. If local regulations allow, the substance can be neutralised and disposed of to drain with copious amounts of water. Wash spillage site well with water and detergent, be aware of the potential for surfaces to become slippery. Ventilate area and allow to dry before allowing access.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid inhalation of dust and contact with skin and eyes. Do not eat, drink or smoke when handling.

STORAGE PRECAUTIONS

Store in closed original container at temperatures between 15°C and 25°C. Store away from heat, direct sunlight and moisture. Store away from incompatible materials. Avoid exposure to the atmosphere for prolonged periods.

STORAGE CLASS

Corrosive storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
SODIUM HYDROXIDE PEARL TECHNICAL GRADE	OES				2 mg/m ³	

ENGINEERING MEASURES

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined workplace exposure limit (WEL) is not exceeded. If dusts are generated then work in a fume cupboard

RESPIRATORY EQUIPMENT

Wear suitable dust respirator if dusts are generated and there is insufficient ventilation or extraction. Consult with the supplier as to the compatibility of the equipment with the chemical of concern. CAUTION: Air purifying respirators do not protect the user in oxygen deficient atmospheres, use air supplied system.

HAND PROTECTION

Wear protective gloves. Rubber or plastic

SODIUM HYDROXIDE PEARL TECHNICAL GRADE**EYE PROTECTION**

Wear approved safety goggles.

OTHER PROTECTION

Wear suitable protective clothing and personal protective equipment to avoid skin contact with this substance. Provide eyewash station and if handling large amounts, a safety shower. Wear plastic apron and full length gloves if handling large amounts. Wear protective boots in the case of treating a spillage.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove contaminated clothing and wash before reuse. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Solid		
COLOUR	White		
ODOUR	Odourless		
SOLUBILITY	Soluble in water.		
BOILING POINT (°C)	1390	MELTING POINT (°C)	318
RELATIVE DENSITY	2.12	BULK DENSITY	1100 - 1200 kg/m ³
pH-VALUE, DILUTED SOLUTION	14.5		

10 STABILITY AND REACTIVITY**STABILITY**

Air and moisture sensitive.

CONDITIONS TO AVOID

Avoid exposure to the atmosphere, product is air sensitive. Avoid heat, direct sunlight and moisture. Avoid storage with incompatible materials.

HAZARDOUS POLYMERISATION

Will not polymerise.

MATERIALS TO AVOID

Acids. Cyanides Aluminium, zinc, tin (formation of hydrogen). Alkali earth metals. Nitrogen compounds Hydrocarbons.

11 TOXICOLOGICAL INFORMATION**INHALATION**

Damage of the upper respiratory tract and lung tissue. The extent of damage is dependent upon the amount of exposure. Effects can vary from mild irritation of the mucous membranes to burns and severe obstructions of the airway.

INGESTION

Causes severe internal damage if swallowed. Causes burns and damage to the mouth, oesophagus, stomach and gastrointestinal tract. There is a risk of perforation of the oesophagus and stomach. Acute complications can be pneumonia, hemorrhage, pleuritis, peritonitis. Long term complications can result from scar formation such as restriction of the oesophagus.

SKIN CONTACT

Causes burns. The extent of damage is dependent upon the contact time rather than the concentration of the sodium hydroxide. More skin tissue damage will occur from a longer contact time. Brief contact causes irritation which progresses to edemas and total destruction of the epidermis.

EYE CONTACT

Strongly corrosive. Causes severe burns. Immediate first aid is imperative. Possible blindness.

12 ECOLOGICAL INFORMATION**ECOTOXICITY**

Although not classified as environmentally hazardous, harmful effects cannot be excluded in the event of improper handling or disposal. Causes alkaline pH shift. The main hazard associated with water contamination is the increase in alkalinity and the effect it can have on aquatic organisms.

LC 50, 96 Hrs, FISH mg/l	45.4 (Onchorhynchus mykiss) Static method
EC 50, 48 Hrs, DAPHNIA, mg/l	100 (Daphnia sp.) lethality
IC 50, 72 Hrs, ALGAE, mg/l	No data, freshwater algae are destroyed at pH >8.5

MOBILITY

Sodium hydroxide solid will initially sink to the base of the water system before dissolving. The substance is soluble and will spread in water. The substance in solid form is not expected to travel in soil, however if dissolved the material can travel further into soil as it becomes more dilute. It will travel in the flow of groundwater at more dilute concentrations.

BIOACCUMULATION

Will not bio-accumulate.

SODIUM HYDROXIDE PEARL TECHNICAL GRADE**ACUTE FISH TOXICITY**

The acute effects on fish are the damaging effect on fins due the increase in alkalinity. As pH increases above 9 the mortality rate increases.

13 DISPOSAL CONSIDERATIONS**GENERAL INFORMATION**

Any waste material is classed as hazardous waste, it should only be disposed of through licenced waste handlers and treatment sites. Do not allow unauthorised disposal to the environment. When handling waste, consideration should be made to the safety precautions applying to handling of the product.

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements. Avoid unauthorised disposal. Do not dump illegally onto land or into water.

14 TRANSPORT INFORMATION

UK ROAD CLASS	8		
PROPER SHIPPING NAME	SODIUM HYDROXIDE, SOLID		
UN NO. ROAD	1823	UK ROAD PACK GR.	II
ADR CLASS NO.	8	ADR CLASS	Class 8: Corrosive substances.
ADR PACK GROUP	II	ADR LABEL NO.	8
HAZCHEM CODE	2X	CEFIC TEC(R) NO.	80GC6-II+III
RID CLASS NO.	8	RID PACK GROUP	II
UN NO. SEA	1823	IMDG CLASS	8
IMDG PAGE NO.	8	IMDG PACK GR.	II
EMS	F-A, S-B	MFAG	See Guide
MARINE POLLUTANT	No.	UN NO. AIR	1823
AIR CLASS	8	AIR PACK GR.	II

15 REGULATORY INFORMATION**LABELLING**

Corrosive

RISK PHRASES

R35 Causes severe burns.

SAFETY PHRASES

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

S37/39 Wear suitable gloves and eye/face protection.

S1/2 Keep locked up and out of the reach of children.

EU DIRECTIVES

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.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health.

GUIDANCE NOTES

Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (CHIP 4)

SODIUM HYDROXIDE PEARL TECHNICAL GRADE

16 OTHER INFORMATION

GENERAL INFORMATION

Under REACH Material Safety Datasheets (MSDS) are referred to as Safety Datasheets (SDS).

REVISION COMMENTS

General rewrite

REVISION DATE 07/05/2010

REV. NO./REPL. SDS GENERATED 2

SDS NO. 20986

SAFETY DATA SHEET STATUS

Approved.