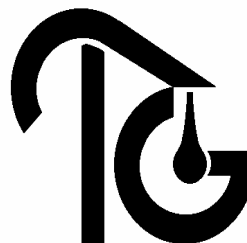


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PRODUCT DATA SHEET

(This booklet incorporates the Specification and M.S.D.S.)

PRODUCT		CAUSTIC SODA PEARL (UK)	
CAS NO.	1310-73-2		
TARIFF NO.	281511000		
U.N NO.	1823		
EINECS NO.	215-185-5		
IMCO CLASS	8 CORROSIVE		
HAZARDS	CORROSIVE		
SPECIFICATION REFERENCE	SH701/708/5	DATE	MAR 96
REFERENCE NO.	CASO/1	DATE	MAR 96
PREVIOUS EDITION		DATE	

PRODUCT SPECIFICATION		
Product Name	Caustic Soda Pearl (UK)	
Alternative Name	Sodium Hydroxide	
Product Grade		
SALES SPECIFICATION		
Appearance		White deliquescent spheres
NaOH	min% w/w	98.0
Na ₂ CO ₃	max % w/w	0.5
NaCl	max ppm w/w	100
Na ₂ SO ₄	max ppm w/w	25
Fe	max ppm w/w	10
Cu	max ppm w/w	2
SiO ₂	max ppm w/w	10
As	max ppm w/w	0.1
Heavy Metals (as Pb)	max ppm w/w	5
Pb	max ppm w/w	0.1
Hg	max ppm w/w	0.01
Mn	max ppm w/w	0.1
Matter Insoluble in Water	max % w/w	0.05
Quality		Conforms to the requirements of BS 4130:1984 Type 1 Food Chemical Codex Vol 3 and BP 1981
NOTES		
Exclusion of Liability		
<p>Information contained in this publication is accurate to the best of the knowledge and belief of Tennants.</p> <p>Any information or advice obtained from Tennants otherwise than by means of this publication and whether relating to Tennants materials or other materials, is also given in good faith. However, it remains at all times the responsibility of the customer to ensure that Tennants materials are suitable for the particular purpose intended.</p> <p>Tennants accepts no liability whatsoever (except as otherwise provided by law) arising out of the use of information supplied, the application, adaptation or processing of the products described herein, the use of other materials in lieu of Tennants materials or the use of Tennants materials in conjunction with such other materials.</p>		
Health and Safety		
<p>A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on the handling precautions and emergency procedures. This must be consulted fully before handling, storage and use.</p>		

SAFETY DATA SHEET	
1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
Product:	CAUSTIC SODA PEARL
COMPANY:	TENNANTS DISTRIBUTION LIMITED Hazelbottom Road Botany Way Cheetham Purfleet Manchester Essex M8 0GR RM19 1SN Tel No. 44(0)161 205 4454 Tel No. 44(0)1708 860075 Fax No. 44(0)161 203 4298 Tel No. 44(0)1708 860074 Emergency Tel No. 01865 407333
2. COMPOSITION/INFORMATION ON INGREDIENTS	
Chemical Family Name:	Alkalis
CAS No.:	1310-73-2
EINECS No.:	215-185-5
3. HAZARDS IDENTIFICATION	
Main Hazards	Corrosive. Causes severe burns to all parts of the body. Will cause deep ulceration with subsequent scarring
Health Effects - Eyes	Severe burns.
Health Effects - Skin	Severe burns.
Health Effects - Ingestion	Severe irritation and corrosion of the mouth, throat and digestive tract
Health Effects - Inhalation	Irritation to nose, throat and respiratory tract
4. FIRST AID MEASURES	
SPEED IS ESSENTIAL	
First Aid - Eyes	Immediately irrigate the eye with eyewash solution or clean water for at least 15 minutes, holding the eye open. Continue irrigation until medical attention can be obtained.
First Aid - Skin	Remove contaminated clothing. Drench with large quantities of water.
First Aid - Ingestion:	Continue to wash the affected area for at least 10 minutes
First Aid - Inhalation	Provided the patient is conscious wash out mouth with water, give 200-300 ml (half a pint) of water to drink. Do not induce vomiting.
Further Medical Treatment	Remove from exposure. Keep warm and at rest. Give oxygen if necessary. Symptomatic treatment and supportive therapy as indicated
5. FIRE FIGHTING MEASURES	
Extinguishing Media	Foam, CO2 or dry powder
Hazardous Reactions	Contact with some organic chemicals can produce violent or explosive reactions. Can react with some metals generating hydrogen gas with its associated hazards. Reaction with moisture may generate sufficient heat to ignite combustible material.
Fire Fighting Protective Equipment	A self contained breathing apparatus and suitable protective clothing must be worn.
6. ACCIDENTAL RELEASE MEASURES	
Personal Precautions:	Wear full protective clothing (including respiratory protection). Protect against dust.
Environmental Precautions:	If spillage or contaminated washings causes contamination of water courses, drains or vegetation inform relevant authorities
Methods of Cleaning	Contain spillages: Transfer to a container for disposal or recovery. Wash the spillage area with water. Water washing to drain or large amounts of caustic soda should only be carried out with the prior consent of the National Rivers Authority or other appropriate regulatory body.
7. HANDLING AND STORAGE	
Handling	Avoid contact with skin and eyes. Avoid inhalation of high concentrations of dusts. Keep away from aluminium, zinc, lead, tin, acids and chlorinated hydrocarbons. Care should be taken when dissolving.
Storage	Keep container dry. Keep container tightly closed, in a cool, well ventilated place.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION	
Occupational Exposure Limits	LTEL 8 hr TWA STEL Time

	ppm	mg/m ³	ppm	mg/m ³	mins
Personal Protective Equipment	-	-	-	2	- OES
Wear close fitting goggles or full face shield. Wear suitable protective clothing and gloves. PVC is recommended. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. Where a cartridge/canister respirator is suitable use Type P (CEN 143).					
9. PHYSICAL AND CHEMICAL PROPERTIES					
Appearance	White deliquescent solid, can be in the form of flakes, pellets or sticks				
Boiling Point °C	1390				
Melting Point °C	318				
Solubility (Water)	Soluble with evolution of heat				
Solubility (Other)	Alcohols, glycerol				
Specific Gravity	2.13 (Water = 1 at 4°C)				
Bulk Density (g/ml)	1.175				
10. STABILITY AND REACTIVITY					
Hazardous Reactions	Can react violently if in contact with acids and chlorinated hydrocarbons. Highly reactive with aluminium, zinc, lead, tin and alloys of these metals producing flammable hydrogen gas. Can react violently if in contact with water.				
11. TOXICOLOGICAL INFORMATION					
On Eyes	Extremely severe irritant/corrosive. May cause severe damage with formation of corneal ulcers and permanent impairment of vision				
On Skin	Corrosive. May cause severe burns with permanent skin damage which are slow to heal.				
By Ingestion	Will immediately cause corrosion of and damage to the gastrointestinal tract. Lethal dose for man is approximately 5g.				
Inhalation	Dust is severely irritating to the respiratory tract. Effect may vary from irritation of the nasal mucous membrane to severe lung irritation.				
Long Term Exposure	The severity of acute effects is such that significant repeated or prolonged exposure is unlikely.				
12. ECOLOGICAL INFORMATION					
Environmental Fate and Distribution	High tonnage material used in partially contained systems. Solid with low volatility. The substance is soluble in water. The substance does not bioaccumulate.				
Persistence and Degradation Toxicity	Sodium hydroxide degrades readily by reaction with the natural carbon dioxide in the air.				
Effect on Effluent Treatment	Concentrations greater than 10ppm, especially in fresh water, or a pH value equal to or greater than 10.5 may be fatal to fish and other aquatic organisms. Can cause damage to aquatic plants. Can cause damage to vegetation.				
	Concentrations sufficient to render effluent alkaline may cause damage to effluent treatment organisms.				
13. DISPOSAL CONSIDERATIONS					
Disposal should be in accordance with local and national legislation.					
14. TRANSPORT INFORMATION					
UN No.	1823				
UN Packaging Group	II				
AIR					
ICAO/IATA Class					
primary	8				
UN Packing Group Air	II				
SEA					
IMDG Class					
primary	8				
UN Packing Group Sea	II				
Proper Shipping Name	Sodium Hydroxide, Solid				
ROAD/RAIL					
ADR/RID Class	8				
ADR/RID Item No	41 (b)				

ADR SIN	1823
15. REGULATORY INFORMATION	
EEC Classification	Corrosive
Hazard Symbol	C
Risk Phrases	R35: Causes severe burns
Safety Phrases	S26: In case of contact with eyes, rinse immediately with plenty of was and seek medical advice S27: Take off immediately all contaminated clothing S37/39: Wear suitable gloves and eye/face protection S45: In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)
16. OTHER INFORMATION	