

INEOS Chlor

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

PRODUCT NAME: CAUSTIC SODA ANHYDROUS

Use of Substance / Preparation: Chemical manufacture and processing.
Animal feed stuff processing.

Address/Phone No.: INEOS Chlor Limited
Runcorn Site HQ
South Parade
PO Box 9
Runcorn, Cheshire
WA7 4JE
Tel : (01928) 561111, Fax : (01928) 516632

Emergency Phone No.: IN AN EMERGENCY DIAL 999 (UK only)
For specialist advice in an emergency telephone Runcorn (01928) 572000

2. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT DESCRIPTION

Alternative names : Sodium hydroxide

EC INDEX No.: 011-002-00-6

| HAZARDOUS INGREDIENT(S) | CAS No / EINECS No | % (w/w) | Symbol | R Phrases |
|-------------------------|-------------------------|------------|--------|-----------|
| Sodium Hydroxide | 001310-73-2 / 215-185-5 | 100 | C | R35 |

3. HAZARDS IDENTIFICATION

EU Classification

CORROSIVE

Hazards

Corrosive. Causes severe burns to all parts of the body.
Will cause deep ulceration with subsequent scarring.

4. FIRST-AID MEASURES

SPEED IS ESSENTIAL.
OBTAIN IMMEDIATE MEDICAL ATTENTION.

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- Inhalation: Remove patient from exposure, keep warm and at rest. Administer oxygen if necessary.
- Skin Contact: Remove contaminated clothing. Drench with large quantities of water. Continue to wash the affected area for at least 10 minutes.
- Eye Contact: Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Continue irrigation until medical attention can be obtained.
- Ingestion: Do not induce vomiting. Provided the patient is conscious, wash out mouth with water and give 200-300 ml (half a pint) of water to drink.

Further Medical Treatment

Symptomatic treatment and supportive therapy as indicated.

5. FIRE-FIGHTING MEASURES

Non-combustible.

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.

Extinguishing Media: foam, CO₂ or dry powder.

Fire Fighting Protective Equipment: A self contained breathing apparatus and suitable protective clothing must be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Ensure suitable personal protection (including respiratory protection) during removal of spillages. Protect against dust.

Contain spillages. Transfer to a container for disposal or recovery. Wash the spillage area with water. Water washing to drain of large amounts of caustic soda should only be carried out with the prior consent of the National Rivers Authority or other appropriate regulatory body.

Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

7. HANDLING AND STORAGE**7.1 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.

7.2 STORAGE

Keep container dry. Keep container tightly closed, in a cool, well ventilated place.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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)

Check with protective equipment manufacturer's data.

| HAZARDOUS INGREDIENT(S) | LTEL 8hr TWA ppm | LTEL 8hr TWA mg/m³ | STEL ppm | STEL mg/m³ | Notes |
|--------------------------------|-------------------------|--------------------------------------|-----------------|------------------------------|--------------|
| Sodium Hydroxide | - | - | - | 2 | OES |

9. PHYSICAL AND CHEMICAL PROPERTIES

These properties are the most relevant and no other properties are available.

| | |
|------------------------|--|
| Form: | Deliquescent solid, can be in the form of flakes, pellets or sticks. |
| Molecular Weight: | 40 |
| Colour: | white |
| Boiling Point (Deg C): | 1390 |
| Melting Point (Deg C): | 318 |
| Solubility (Water): | soluble with evolution of heat |
| Solubility (Other): | alcohols, glycerol |
| Specific Gravity: | 2.13 (Water = 1 at 4 Deg C) |
| Bulk Density (g/ml): | 1.175 |

10. STABILITY AND REACTIVITY

Stable

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**Inhalation**

Dust is severely irritant to the respiratory tract. Effect may vary from irritation of the nasal mucous membrane to severe lung irritation.

Skin Contact

Corrosive. May cause severe burns with permanent skin damage which are slow to heal.

Eye Contact

Extremely severe irritant/corrosive.

May cause severe damage with formation of corneal ulcers and permanent impairment of vision.

Ingestion

Will immediately cause corrosion of and damage to the gastrointestinal tract.

Lethal dose for man is approximately 5g.

Long Term Exposure

The severity of acute effects is such that significant repeated or prolonged exposure is unlikely.

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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

Sodium hydroxide degrades readily by reaction with the natural carbon dioxide in the air.

Toxicity

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.

Effect on Effluent Treatment

Concentrations sufficient to render effluent alkaline may cause damage to effluent treatment organisms.

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with local, state or national legislation.

14. TRANSPORT INFORMATION

UN No.: 1823
UN Pack. Group: II

AIR**ICAO/IATA**

-primary: 8
UN Packing group Air: II

SEA**IMDG**

-primary: 8
U.N. Packing group Sea: II
Proper Shipping Name: SODIUM HYDROXIDE, SOLID

ROAD/RAIL

ADR/RID Class: 8
ADR Sin: 1823

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15. REGULATORY INFORMATION

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Runcorn, Cheshire, WA7 4JE
Tel : (01928) 561111, Fax : (01928) 516632

Name of Substance or Preparation: CAUSTIC SODA ANHYDROUS

Hazard(s) and Symbol(s): CORROSIVE: C

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.
S37/39: Wear suitable gloves and eye/face protection.
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

EC Number: 215-185-5 EC Label

Control of Substances Hazardous to Health Regulations (COSHH) 1999 SI 1999/437 and COSHH essentials: Easy steps to control chemicals - Control of Substances Hazardous to Health Regulations HSG193.

16. OTHER INFORMATION

This data sheet was prepared in accordance with Directive 2001/58/EC.

The following sections contain revisions or new statements: 1,2,3,9,15,16.

Information in this publication is believed to be accurate and is given in good faith, but it is for the Customer to satisfy itself of the suitability for its own particular purpose. Accordingly, Ineos Chlor Limited gives no warranty as to the fitness of the Product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that such exclusion is prevented by law. Freedom under Patent, Copyright and Designs cannot be assumed.

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GLOSSARY

OES : Occupational Exposure Standard (UK HSE EH40)

MEL : Maximum Exposure Limit (UK HSE EH40)

COM : The company aims to control exposure in its workplace to this limit

TLV : The company aims to control exposure in its workplace to the ACGIH limit

TLV-C: The company aims to control exposure in its workplace to the ACGIH Ceiling limit

MAK : The company aims to control exposure in its workplace to the German limit

Sk : Can be absorbed through skin

Sen : Capable of causing respiratory sensitisation

Bmgv : Biological monitoring guidance value (UK HSE EH40)

ILV : Indicative Limit Value (UK HSE EH40)

IOELV : Indicative Occupational Exposure Limit Value