

SECTION 1 – IDENTIFICATION

Product Identifier: Sodium Hydroxide Pellets
ACS Grade

Catalogue Number: 1530

Other means of identification: Caustic soda

Recommended use of the chemical and restrictions on use:
For R&D use only. Not for pharmaceutical, household or other uses.

Supplier Information:

Axil Scientific Pte Ltd
41 Science Park Road
#04-08 The Gemini
Singapore Science Park II
Singapore 117610
Tel: +65 6775 7318
Fax: +65 6775 7211
Email: info@axilscientific.com

Apical Scientific Sdn Bhd
No 7-1 to 7-4 Jalan SP 2/7
Taman Serdang Perdana, Seksyen 2
Seri Kembangan 43300
Selangor Darul Ehsan, Malaysia
Tel: +603 8943 3252
Fax: +603 8943 3243
Email: custcare@apicalscientific.com

Emergency phone number:

Monday – Friday, 8:00 a.m. to 6:00 p.m.
+65 6775 7318 (Singapore)
+603 8943 3252 (Malaysia)

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification:

Corrosive to metals, Category 1
Skin corrosion, Category 1
Serious eye damage, Category 1

GHS Hazard Pictogram(s):



Signal Word: Danger

Hazards statements:

H290: May be corrosive to metals.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.

Precautionary statements:

Prevention

P234: Keep only in original container.
 P260: Do not breathe dust/fume/gas/mist/vapour/spray.
 P264: Wash thoroughly after handling.
 P280: Wear protective gloves/protective clothing/eye protection/ face protection.

Response

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340+P310: IF INHALED: Remove victim to fresh air and keep at rest position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P390: Absorb spillage to prevent material damage.

Disposal

P501: Dispose of contents/container in accordance with federal, state and local environmental regulations.

SECTION 3 – COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Identity: Sodium Hydroxide
Synonyms: Caustic Soda
Molecular Formula: NaOH
Molecular Weight: 40.0 g/mol

Component	Classification	Concentration
Sodium Hydroxide		
CAS-No: 1310-73-2 EC-No: 215-185-5	Met. Corr. 1; 1; H290, H314, H318	≤ 100 %

SECTION 4 – FIRST-AID MEASURES

General Advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact

Immediately flush eyes with copious amounts of water for at least 15 minutes. Consult a physician.

Skin Contact

Immediately wash skin thoroughly with soap and copious amounts of water. Consult a physician.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration or if breathing is difficult, give oxygen. Consult a physician.

Ingestion

Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

Spasm, inflammation and edema of the larynx. Spasm, inflammation and edema of the bronchi. Pneumonitis, pulmonary edema, burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Indication of immediate medical attention and special treatment needed

Data not available.

SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing Media

Use water spray, dry chemical powder, carbon dioxide or alcohol-resistant foam.

Special Exposure Hazards

Sodium oxides.

Special Fire-fighting Procedures

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions

Prevent skin/eye contact. Avoid dust formation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not allow material into sewers and drainage systems.

Methods for Cleaning Up

Sweep up, or if in solution form, soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7 – HANDLING AND STORAGE

Precautions for safe handling

Prevent skin/eye contact. Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Avoid breathing dust. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent spillage.

SECTION 8 – EXPOSURE CONTROLS/ PERSONAL PROTECTION

Occupational Exposure Limits

Component	CAS-No.	Value	Control parameters	Basis
Sodium hydroxide	1310-73-2	PEL (short-term)	2 mg/m ³	Singapore. Workplace Safety and Health Act – First Schedule

c)	Odour Threshold	Not available
d)	pH	13.0 – 14.0 (1M; H ₂ O, 25 °C)
e)	Melting/freezing point	323 °C
f)	Initial boiling point and boiling range	1,309 °C
g)	Flash point	Not applicable
h)	Evaporation rate	Not available
i)	Flammability (solid, gas)	Not available
j)	Upper/lower flammability or explosive limits	Not available
k)	Vapour pressure	< 24 hPa at 20 °C
l)	Vapour density	1.38 (Air = 1.0)
m)	Relative density	2.13 g/cm ³ (25 °C)
n)	Solubility (ies)	1,260 g/L (H ₂ O, 20°C)
o)	Partition coefficient: n-octanol/water	Not available
p)	Autoignition temperature	Not available
q)	Decomposition temperature	Not available
r)	Viscosity	Not available

SECTION 10 – STABILITY AND REACTIVITY

Reactivity

Data not available.

Chemical stability

Stable.

Possibility of hazardous reactions

Data not available.

Conditions to avoid

Data not available.

Incompatible material

Strong oxidizing agents, Strong acids, Organic materials

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sodium oxides

SECTION 11 – TOXICOLOGICAL INFORMATION**Acute toxicity**

Data not available

Skin corrosion/irritation

Causes severe burns – 24 hr [Rabbit]

Serious eye damage/eye irritation

Corrosive – 24 hr [Rabbit]

Respiratory or skin sensitization

Will not occur

Germ cell mutagenicity

Data not available.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Data not available.

Specific target organ toxicity – single exposure

Data not available.

Specific target organ toxicity – repeated exposure

Data not available.

Aspiration hazard

Data not available.

Other information

RTECS: WB4900000

SECTION 12 – ECOLOGICAL INFORMATION**Toxicity**

Toxicity to fish (LC50):

125 mg/L – 96 hr [Gambusia affinis]

45.4 mg/L – 96 hr [Oncorhynchus mykiss]

Toxicity to daphnia and other aquatic invertebrates (Immobilization EC50):

40.38 mg/L – 48 hr [Daphnia]

Persistence and degradability

Biodegradable

Methods for determining biological degradability not applicable to inorganic substances.

Bioaccumulative potential

Data not available.

Mobility in soil

Data not available.

Other adverse effect

Harmful to aquatic life.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose off as unused product.

SECTION 14 – TRANSPORT INFORMATION

UN Number

ADR/RID: 1823

IMDG: 1823

IATA-DGR: 1823

UN Proper Shipping Name:

ADR/RID: Sodium hydroxide, solid

IMDG: Sodium hydroxide, solid

IATA-DGR: Sodium hydroxide, solid

Transport Hazard Class(es)

ADR/RID: 8

IMDG: 8

IATA-DGR: 8

Packing Group

ADR/RID: II

IMDG: II

IATA-DGR: II

Environmental Hazards

ADR/RID: no

IMDG: marine pollutant: no

IATA-DGR: no

Special Precaution for Users

Data not available

SECTION 15 – REGULATORY INFORMATION

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

Data not available

SECTION 16 – OTHER INFORMATION

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. Axil Scientific Pte Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.