

## SECTION 1 – IDENTIFICATION

**Product Identifier:** 3M Sodium Chloride, 0.2M Sodium Hydroxide Solution  
Ultra Pure Grade

**Catalogue Number:** 1117.1

**Other means of identification:** -

**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  
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Singapore 618305

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Email: [custcare@axilscientific.com](mailto:custcare@axilscientific.com)

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### 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:

Skin corrosion, Category 2  
Serious eye damage, Category 2

### GHS Hazard Pictogram(s):



**Signal Word:** Warning

### Hazards statements:

H315: Causes skin irritation.  
H318: Causes serious eye damage.

### Precautionary statements:

#### *Prevention*

P264: Wash thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/ face protection.

## Response

P302 + P352: IF ON SKIN: Wash with plenty of water

P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P332 + P313: If skin irritation occurs: Get medical advice/ attention.

P362 + P364: Take off contaminated clothing and wash it before reuse.

P390: Absorb spillage to prevent material damage.

## Storage

P403+P233: Store in a well-ventilated place and keep container tightly closed.

## SECTION 3 – COMPOSITION/ INFORMATION ON INGREDIENTS

**Chemical characterization:** Mixture

**Chemical Identity:** Sodium Hydroxide  
**Synonyms:** Caustic Soda  
**Molecular Formula:** NaOH  
**Molecular Weight:** 40.00 g/mol

Component	Classification	Concentration
<b>Sodium Hydroxide</b>		
CAS-No. 1310-73-2 EC-No. 215-185-5	Met. Corr. 1; 1; H290, H314, H318	≤ 0.8 %

**Chemical Identity:** Sodium Chloride  
**Synonyms:** Common salt  
Halite  
Table salt  
**Molecular Formula:** NaCl  
**Molecular Weight:** 58.44 g/mol

Component	Classification	Concentration
<b>Sodium Chloride</b>		
CAS-No. 7647-14-5 EC-No. 231-598-3		≤ 17.5 %

## 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 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

Nature of decomposition products not known.

### 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 breathing vapours, mist or gas. Evacuate personnel to safe areas.

### 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

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 breathing vapours, mist or gas. Ensure adequate ventilation. 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 leakage.

## 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 <sup>3</sup>	Singapore. Workplace Safety and Health Act – First Schedule Permissible Exposure Limits of Toxic Substances

## Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.

## Eye/ Face Protection

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

## Skin/ Hand Protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

## Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## Respiratory Protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

a)	<b>Appearance</b>	Clear solution
b)	<b>Odour</b>	Odourless
c)	<b>Odour Threshold</b>	Not available
d)	<b>pH (Neat, 25 °C)</b>	12.0 – 14.0
e)	<b>Melting/freezing point</b>	Not available
f)	<b>Initial boiling point and boiling range</b>	Not available
g)	<b>Flash point</b>	Not available
h)	<b>Evaporation rate</b>	Not available
i)	<b>Flammability (solid, gas)</b>	Not available
j)	<b>Upper/lower flammability or explosive limits</b>	Not available
k)	<b>Vapour pressure</b>	Not available
l)	<b>Vapour density</b>	Not available
m)	<b>Relative density</b>	Not available
n)	<b>Solubility (ies)</b>	Not available
o)	<b>Partition coefficient: n-octanol/water</b>	Not available
p)	<b>Autoignition temperature</b>	Not available
q)	<b>Decomposition temperature</b>	Not available
r)	<b>Viscosity</b>	Not available

## SECTION 10 – STABILITY AND REACTIVITY

### Reactivity

Data not available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

Data not available.

**Conditions to avoid**

Data not available.

**Incompatible material**

Strong oxidizing agents.

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

**SECTION 11 – TOXICOLOGICAL INFORMATION****Acute toxicity**

Data not available.

**Skin corrosion/irritation**

Data not available.

**Serious eye damage/eye irritation**

Data not available.

**Respiratory or skin sensitization**

Data not available.

**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: Data not available

## SECTION 12 – ECOLOGICAL INFORMATION

### Toxicity

Data not available.

### Persistence and degradability

Data not available.

### Bioaccumulative potential

Data not available.

### Mobility in soil

Data not available.

### Other adverse effect

Data not available.

## 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: -

IMDG: -

IATA-DGR: -

### UN Proper Shipping Name:

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA-DGR: Not dangerous goods

### Transport Hazard Class(es)

ADR/RID: -

IMDG: -

IATA-DGR: -

### Packing Group

ADR/RID: -

IMDG: -

IATA-DGR: -

### 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

**Date of Issue:** MAY 01, 2013

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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.*