



Sodium Hydroxide Solution 2.0M

VM5613

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758 and SI 2020/1577

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name Sodium Hydroxide Solution 2.0M
Trade Name
Product code VM5613

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s) Industrial/professional PROC15 Use as laboratory reagent
Uses Advised Against Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer
Company Identification Atom Scientific Ltd
Address of Manufacturer Unit 2A East Tame Business Park
Rexcine Way
Hyde
Cheshire
Postal code SK14 4GX
Telephone: 0161 3665123
Fax 01704 337167
E-mail technical@atomscientific.com
Office hours 08:00 - 17:00
Supplier
Company Identification Atom Scientific Ltd
Address of Supplier Unit 2A East Tame Business Park
Rexcine Way
Hyde
Cheshire
Postal code SK14 4GX
Telephone: 0161 3665123
Fax 01704 337167
E-mail technical@atomscientific.com
Office hours 08:00 - 17:00

1.4 Emergency telephone number

Emergency Phone No. 07833453806
Contact Peter Keenan
National response centre
Address NHS Direct
Emergency Phone No. +44 111



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SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GB CLP Regulation, UK SI 2019/720 and Met. Corr. 1 :May be corrosive to metals.

UK SI 2020/1567

Skin Corr. 1A :Causes severe skin burns and eye damage.

Eye Dam. 1 :Causes serious eye damage.

2.2 Label elements

According to GB CLP Regulations, UK SI 2019/720 and UK SI 2020/1567

Product Name

Sodium Hydroxide Solution 2.0M

Hazard Pictogram(s)



GHS05

Signal Word(s)

Danger

Hazard Statement(s)

H290: May be corrosive to metals.

H314: Causes severe skin burns and eye damage.

Precautionary Statement(s)

P260: Do not breathe mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

P405: Store locked up.

P406: Store in a corrosion-resistant container with a resistant inner liner.

P501: Dispose of contents in accordance with local, state or national legislation.

2.3 Other hazards

pH shift when released into watercourses.

2.4 Additional Information

For full text of H/P Statements see section 16.



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / Registration number(s)	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
sodium hydroxide caustic soda	1310-73-2	215-185-5	40	Skin Corr. 1A H314	GHS05
Water	7732-18-5	231-791-2	60	Not classified	None

For full text of H/P Statements see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Immediately call a POISON CENTRE/doctor.
Skin Contact	Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a POISON CENTRE/doctor.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment (see Medical Advice on this label). Immediately call a POISON CENTRE/doctor. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media	As appropriate for surrounding fire.
Unsuitable extinguishing media	None.

5.2 Special hazards arising from the substance or mixture

May decompose in a fire, giving off toxic and irritant vapours.

5.3 Advice for firefighters

As appropriate for surrounding fire.



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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not use metal containers for spilled liquid. Wear appropriate personal protective equipment, avoid direct contact.

6.2 Environmental precautions

This material and its container must be disposed of in a safe way.

6.3 Methods and material for containment and cleaning up

Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal.

6.4 Reference to other sections

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep only in original packaging. Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up. Store in a corrosion-resistant container with a resistant inner liner.

Storage temperature

Ambient.

Storage life

Stable under normal conditions.

Incompatible materials

None known.

7.3 Specific end use(s)

Industrial/professional PROC15 Use as laboratory reagent

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Sodium hydroxide	1310-73-2				2	

Region

Source

United Kingdom

UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark

Notes



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8.2 Exposure controls

8.2.1. Appropriate engineering controls Provide adequate ventilation, including appropriate local extraction. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment



Eye Protection Wear eye protection with side protection (EN166).



Skin protection Wear protective clothing and gloves: Impervious gloves (EN 374).



Respiratory protection Normally no personal respiratory protection is necessary.



Thermal hazards None known.

8.2.3. Environmental Exposure Controls Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid. Colour : Colourless.
Odour	Odourless.
Odour threshold	Not known.
pH	>12.
Melting point/freezing point	<0°C
Initial boiling point and boiling range	>100 °C at 1,1013h Pa
Flash Point	Not known.
Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	14mm Hg at 20 °C
Vapour density	Not known.
Density (g/ml)	>1.0 g/cm ³ 20 °C
Relative density	Not known.
Solubility(ies)	Solubility (Water) : Completely miscible with water. Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.



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Decomposition Temperature (°C)	Not known.
Viscosity	Not knownC
Explosive properties	Not classified as explosive
Oxidising properties	Not oxidising.

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None anticipated.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

Incompatible materials

10.5 Incompatible materials

Incompatible materials

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Calculation method : Not classified.
Acute toxicity - Skin Contact	Calculation method : Not classified.
Acute toxicity - Inhalation	Calculation method : Not classified.
Skin corrosion/irritation	Calculation method : Causes severe skin burns and eye damage.
Serious eye damage/irritation	Calculation method : Causes serious eye damage.
Skin sensitization data	Calculation method : Not classified.
Respiratory sensitization data	Calculation method : Not classified.
Germ cell mutagenicity	Calculation method : Not classified.
Carcinogenicity	Calculation method : Not classified.
Reproductive toxicity	Calculation method : Not classified.
Lactation	Calculation method : Not classified.
STOT - single exposure	Calculation method : Not classified.
STOT - repeated exposure	Calculation method : Not classified.
Aspiration hazard	Calculation method : Not classified.

11.2 Other information

Not known.



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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

12.2 Persistence and degradability

Not known.

12.3 Bioaccumulative potential

Not known.

12.4 Mobility in soil

Not known.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Other adverse effects

Local pH shift if released into watercourses.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of contents in accordance with local, state or national legislation. Send to a licensed recycler, reclaimer or incinerator. Dispose at suitable refuse site.

13.2 Additional Information

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

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN No. 1824

14.2 UN proper shipping name

UN proper shipping name SODIUM HYDROXIDE SOLUTION

14.3 Transport hazard class(es)

ADR/RID

ADR/RID Class 8

ADR Classification Code C5

Special Provisions

Limited Quantities 1 L



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Excepted Quantities	E2
Emergency Action Code	2R
Mixed Packing Instructions for Packages	P001 IBC02
Special Packing Provisions for Packages	
Mixed Packing Instructions for Packages	MP15
Packing Instructions for Portable Tanks	T7
Special Provisions for Portable Tanks	TP2
Tank Code for Tanks	L4BN
Special Provisions for Tanks	TU42
Vehicle for Tank Carriage	AT
ADR Transport Category	2
Tunnel Restriction Code	E
Special Provisions for Carriage - Packages	
Special Provisions for Carriage - Bulk	
Special Provisions for Carriage - Loading, Unloading and Handling	
Special Provisions for Carriage - Operation	
ADR HIN	80
IMDG	
IMDG Class	8
Special Provisions	
Limited Quantities	1 L
Excepted Quantities	E2
Mixed Packing Instructions for Packages	P001 IBC02
Special Packing Provisions for Packages	
Packing Instructions for Portable Tanks	T7
Special Provisions for Portable Tanks	TP2
IMDG EMS	F-A, S-B
Stowage and Handling	Category A
Segregation	SGG18 SG35
Marine Pollutant	
ICAO/IATA	
IATA Proper Shipping Name	SODIUM HYDROXIDE SOLUTION
Excepted Quantities	E2
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Y840
Passenger and Cargo Aircraft Limited Quantities Max net Qty	0.5L
Passenger and Cargo Aircraft Packing Instructions	851



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Passenger and Cargo Aircraft Max net Qty	1L
Cargo Aircraft Packing Instructions	855
Cargo Aircraft Max net Qty	30L
Special Provisions	A3, A803
Emergency Response Guidebook (ERG) Code	8L
Labels	
Labels	8



14.4 Packing group

Packing group II

14.5 Environmental hazards

Environmental hazards Not classified as a Marine Pollutant.

14.6 Special precautions for user

Special precautions for user Not known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No information available

SECTION 15: REGULATORY INFORMATION

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

United Kingdom Regulations - Authorisations and/or Restrictions On Use

UK REACH Candidate List of Substances Not listed
of Very High Concern for Authorisation

UK REACH Authorisation List (Annex XIV) list of substances subject to
authorisation Not listed

UK REACH Restrictions List (Annex XVII) sodium hydroxide caustic soda (1310-73-2)
Restrictions on the manufacture, placing
on the market and use of certain
dangerous substances, mixtures and
articles

UK REACH Rolling Action Plan (RAP) Not listed

The Persistent Organic Pollutants Not listed

Regulations 2007 (SI 2007/3106) as
amended

The Ozone-Depleting Substances and
Fluorinated Greenhouse Gases Not listed



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(Amendment etc.) (EU Exit) Regulations

2019 (SI 2019/583)

The Prior Informed Consent (PIC) Not listed

Regulations concerning the export and
import of hazardous chemicals

SI2008/2108 as amended

European Regulations - Authorisations and/or Restrictions On Use

Community Rolling Action Plan (CoRAP) Not listed

15.2 Chemical Safety Assessment

United Kingdom

A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Hazard Pictogram(s)



GHS05

Hazard classification

Met. Corr. 1 : Substance or mixture corrosive to metals, Category 1

Skin Corr. 1A : Skin corrosion/irritation, Category 1A

Eye Dam. 1 : Serious eye damage/irritation, Category 1

Hazard Statement(s)

H290: May be corrosive to metals.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

Precautionary Statement(s)

P234: Keep only in original packaging.

P260: Do not breathe mist/vapours/spray.

P264: Wash hands and exposed skin thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated
clothing. Rinse skin with water.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for
breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.



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P310: Immediately call a POISON CENTRE/doctor.

P321: Specific treatment (see Medical Advice on this label).

P363: Wash contaminated clothing before reuse.

P390: Absorb spillage to prevent material damage.

P405: Store locked up.

P406: Store in a corrosion-resistant container with a resistant inner liner.

P501: Dispose of contents in accordance with local, state or national legislation.

Acronyms

ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE : Acute Toxicity Estimate

CAS : Chemical Abstracts Service

DNEL : Derived No Effect Level

EC : European Community

EINECS : European Inventory of Existing Commercial Chemical Substances

IATA : International Air Transport Association

IBC : Intermediate Bulk Container

ICAO : International Civil Aviation Organization

IMDG : International Maritime Dangerous Goods

LTEL : Long term exposure limit

PBT : Persistent, Bioaccumulative and Toxic

PNEC : Predicted No Effect Concentration

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals

RID : Regulations concerning the International Carriage of Dangerous Goods by Rail

STEL : Short term exposure limit

STOT : Specific Target Organ Toxicity

UN : United Nations

vPvB : very Persistent and very Bioaccumulative

Key literature references and sources for GB CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 data used to compile the SDS

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