



Sulphuric Acid Solution 2.0M (4.0N)

(VM5281)

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 Sulphuric Acid Solution 2.0M (4.0N)
Product code VM5281

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

SECTION 2: HAZARDS IDENTIFICATION



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2.1 Classification of the substance or mixture

GB CLP Regulation, UK SI 2019/720 and Skin Corr. 1A :Causes severe skin burns and eye damage.

UK SI 2020/1567

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

Sulphuric Acid Solution 2.0M (4.0N)

Hazard Pictogram(s)



GHS05

Signal Word(s)

Danger

Hazard Statement(s)

H314: Causes severe skin burns and eye damage.

Precautionary Statement(s)

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

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

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

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

2.3 Other hazards

None known.

2.4 Additional Information

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

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)
Water	7732-18-5	231-791-2	>80	Not classified	None
sulphuric acid ... %	7664-93-9	231-639-5	<20%	Skin Corr. 1A H314	GHS05



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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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Wear suitable protective clothing, gloves and eye/face protection.

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



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7.1 Precautions for safe handling

Wash hands and exposed skin thoroughly after handling. Wear protective gloves/eye protection.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up.

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
Sulphuric acid (mist)	7664-93-9		0.05			(k)

Region: United Kingdom
Source: UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark: (k)
Notes: The mist is defined as the thoracic fraction

8.2 Exposure controls

8.2.1. Appropriate engineering controls: Ensure adequate ventilation. 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.



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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	< 2.
Melting point/freezing point	3°C
Initial boiling point and boiling range	290°C
Flash Point	Not known.
Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	1.33hPa (145.8°C)
Vapour density	Not known.
Density (g/ml)	Not known.
Relative density	1.65g/cm ³ @ 25°C
Solubility(ies)	Solubility (Water) : Completely miscible with water.
	Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None anticipated.

10.2 Chemical Stability

Stable under normal conditions.



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10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

None anticipated.

10.5 Incompatible materials

Not known.

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. LD50 Oral - Rat 2,140mg/Kg
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.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity - Aquatic invertebrates	EC50 -(Daphnia magna) 28mg/l - 24h
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.



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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

Not known.

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. 2796

14.2 UN proper shipping name

UN proper shipping name SULPHURIC ACID

14.3 Transport hazard class(es)

ADR/RID

ADR/RID Class 8

ADR Classification Code C1

Special Provisions

Limited Quantities 1 L

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 T8

Special Provisions for Portable Tanks TP2

Tank Code for Tanks L4BN

Special Provisions for Tanks

Vehicle for Tank Carriage AT

ADR Transport Category 2

Tunnel Restriction Code E



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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	T8
Special Provisions for Portable Tanks	TP2
IMDG EMS	F-A, S-B
Stowage and Handling	Category B
Segregation	SGG1a SG36 SG49
Marine Pollutant	
ICAO/IATA	
IATA Proper Shipping Name	SULPHURIC ACID
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
Passenger and Cargo Aircraft Max net Qty	1L
Cargo Aircraft Packing Instructions	855
Cargo Aircraft Max net Qty	30L
Special Provisions	
Emergency Response Guidebook (ERG) Code	8L
Labels	
Labels	8



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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 Not listed

XIV) list of substances subject to

authorisation

UK REACH Restrictions List (Annex XVII) sulphuric acid ... % (7664-93-9)

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 Not listed

Fluorinated Greenhouse Gases

(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.



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SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Hazard Pictogram(s)



GHS05

Hazard classification

Skin Corr. 1A : Skin corrosion/irritation, Category 1A
Eye Dam. 1 : Serious eye damage/irritation, Category 1

Hazard Statement(s)

H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.

Precautionary Statement(s)

P260: Do not breathe mist/vapours/spray.
P264: Wash hands and exposed skin thoroughly after handling.
P280: Wear protective gloves/eye 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.
P310: Immediately call a POISON CENTRE/doctor.
P321: Specific treatment (see Medical Advice on this label).
P363: Wash contaminated clothing before reuse.
P405: Store locked up.
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



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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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