

Sulphuric acid solution

Section 1. Identification of Product and Company

1.1 Identification of substance or preparation: Sulphuric acid solution 1M

Synonyms: Hydrogen Sulfate; Oil of Vitriol; Vitriol Brown Oil; Matting Acid; Battery Acid

1.2 Product Application: This MSDS provides Health and Safety information from any 1M Sulphuric acid solution component of the following vials or kits:

Altus Science Part Number	Product Name/Description/Range
(K) = Kit A-8860	From 1M Sulphuric acid solution

1.3 Company/Undertaking Identification:

Altus Science Limited
Vanguard House
Sci-Tech Daresbury
Keckwick Lane
Daresbury,
Cheshire,
WA4 4AB
United Kingdom
Telephone: +44 (0) 1925 606528
Email address: info@altusscience.com

1.4 Emergency Telephone: +44(0) 1925 606 528

Section 2. Hazards Identification

2.1 Hazard Summary:

Physical hazards: Not classified for physical hazards

Health hazards: Not classified for health hazards

Environmental hazards: Not classified for hazards to the environment

2.2 Label elements:

Contains: Sulphuric acid, Water

Supplemental label information: Not applicable

2.3 Other hazards: Not assigned

Section 3. Composition/Information on Ingredients

3.1 Mixtures: Sulphuric acid solution

Chemical description:

Compound Name	CAS-No.	EC No.	Concentration	CLP Classification - Reg No.
Water	7732-18-5	231-791-2	≥95%	Not applicable
Sulphuric acid	7664-93-9	231-639-5	≥5%	MET Corr. 1;H290, Skin Corr 1A;H315, H319

Section 4. First Aid Measures

4.1 Description of first aid measures:

Skin Contact: Wash off with plenty of soap and water

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes. Seek medical attention if irritation persists

Ingestion: Rinse mouth with plenty of water. Seek medical attention

Inhalation: If inhaled, move person to fresh air. If not breathing, give artificial respiration

4.2 **Most important symptoms and effects, both acute and delayed:** Not applicable

4.3 **Indication of any immediate medical attention and special treatment needed:** Not available

Section 5. Fire Fighting Measures

5.1 Extinguishing media:

Suitable Extinguishing Media: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide

Unsuitable Extinguishing Media: None

5.2 **Special hazards arising from the substance or mixture:** Sulphur oxides

5.3 Advice for fire-fighters:

Special protective equipment for fire-fighters: No special protective equipment required

Special fire-fighting procedures: Not applicable

5.4 **Further information:** No data available

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Avoid breathing vapours, mist or gas. Ensure adequate ventilation

For emergency responders: Use personal protection recommended in Section 8 of the MSDS

6.2 **Environmental precautions:** No special environmental precautions required

6.3 Methods and materials for containment and clean up:

Spills of the product could present a significant slip hazard depending on quantity and surface type

Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements

Contain and recover by physical means

Clean small spills by diluting with sufficient quantities of water

6.4 **Reference to other sections:** Please refer to Section 8 for further information

Section 7. Handling and Storage

7.1 **Precautions for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour

7.2 **Conditions for safe storage, including any incompatibilities:** Reasonable and safe chemical storage.

Store in a closed container in a well ventilated storage area, away from incompatible materials

7.3 **Specific end use(s):** For professional and industrial users only

Section 8. Exposure Controls/Personal Protection

8.1 Control parameters

Occupational exposure limits - UK EH40 Workplace Exposure Limits (WEL's):

Components	Type	Value
Sulphuric acid (7664-93-9)	STEL	0.05mg/m3
	TWA	0.05mg/m3

8.2 Exposure controls:

Biological Limit Values: No biological exposure limits noted for the ingredient(s)

Recommended monitoring procedures: Not available

Environmental exposure controls: Not applicable

Appropriate engineering controls: Not available

Personal protective equipment:

Eye/face protection: Use safety goggles

Skin protection: Use protective gloves

Body protection: Wear personal protective clothing

Respiratory protection: Ensure there is adequate ventilation

Section 9. Physical and Chemical Properties

9.1 Physical and Chemical Properties:

Characteristic		Description
Appearance	<i>Physical State</i>	Liquid
	<i>Colour</i>	Colourless
Odour		None
Odour Threshold		Not available
pH (Concentrated product)		0.3
Melting point/freezing point		10.35°C
Initial boiling point and boiling range		340°C
Flash point		Not applicable
Evaporation rate		Slower than ether (ether=1)
Flammability (solid, gas)		Not available
Flammable Limit - lower		Not available
Flammable Limit - upper		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		Not available
Water solubility		Soluble
Partition coefficient (n-Octanol/water)		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidizing properties		Not available

9.2 Other safety information: No relevant additional information available

Section 10. Stability and Reactivity

10.1 Reactivity: Not available

10.2 Chemical Stability: Material is stable under normal conditions

10.3 Possibility of hazardous reactions: Not applicable

10.4 Conditions to avoid: Not available

10.5 Incompatible materials: Bases, Halides, Metals, Alkalis, Acrylonitrile

10.6 Hazardous decomposition products: None known

Section 11. Toxicological Information

11.1 Information on toxicological effects: No data available

Acute toxicity: Not classified

Skin corrosion/irritation: Not classified

Respiratory or skin sensitisation: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

Information on likely routes of exposure:

Ingestion: None known

Inhalation: None known

Skin contact: None known

Eye contact: None known

Signs and symptoms of Exposure: Not available

Mixture versus substance information: Not available

Additional information: Not available

Section 12. Ecological Information

12.1 Toxicity: No toxicity data noted for the ingredient(s)

12.2 Persistence and degradability: No data available

12.3 Bio accumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment: Not available

12.6 Other adverse effects: Not available

12.7 Summary: The product is not classified as dangerous for the environment. The evaluation of the environmental hazards is based on the concentration limits set out in directive 1999/45/EC

Section 13. Disposal Considerations

13.1 Waste treatment methods:

Product - According to Controlled Waste Regulations:

European Waste Code (EWC) recommendation: 16 03 04

16 Wastes not otherwise specified in the list

16 03 Off-specification batches and unused products

16 03 04 Inorganic wastes

Depending on the origin and state of waster, other EWC numbers may be applicable too

Contaminated packaging - According to Controlled Waste Regulations:

European Waste Code (EWC) recommendation: 15 01 02

15 Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified

15 01 Packaging (including separately collected municipal packaging waste)

15 01 02 Plastic packaging

15 01 06 Glass packaging

Depending on the origin and state of the waste, other EWC numbers may be applicable too

Section 14. Transport Information

- 14.1 **ADR:** Not regulated as dangerous goods
 - 14.2 **RID:** Not regulated as dangerous goods
 - 14.3 **ADN:** Not regulated as dangerous goods
 - 14.4 **IATA:** Not regulated as dangerous goods
 - 14.5 **IMDG:** Not regulated as dangerous goods
 - 14.6 **Special precautions for user:** No data available
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Section 15. Regulatory Information

- 15.1 **Safety, health and environment regulations/legislation specific for the substance or mixture:** No data available
 - 15.2 **Chemical safety assessment:** No data available
 - 15.3 **Other regulations:** This product does not need to be labelled in accordance with EC directives or respective national laws.
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Section 16. Other Information

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 present state of knowledge and is applicable to the product with regard to appropriate safety precautions. Altus Science Ltd shall not be held liable for any damage resulting from handling or from contact with the above product. Please refer to Terms and Conditions for further information of sale.

Abbreviations

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

RID - International Rule for Transport of Dangerous Substances by Railway

ADN - International Carriage of Dangerous Goods by Inland Navigation

IATA - International Air transport Association

IMDG - International Maritime Dangerous Goods Code

WEL - Workplace Exposure Limit

TWA - Time weighted Average

STEL - Short-term Exposure Limit

vPvB - Very persistent, very Bio accumulative

H290 – May be corrosive to metals

H315 – Causes skin irritation

H319 – Causes serious eye irritation