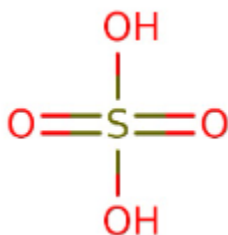


1. General Statement

Sulfuric acid (98%) is colourless odourless liquid. Non-combustible substance. Slightly viscous, strongly hygroscopic. Mixable with water. Aqueous solution reacts acidic. Not volatile. Acts oxidizing with increasing temperature. Concentrated sulphuric acid can destroy organic substances by dehydration under charring. Acute or chronic health hazards result from the substance.

2. Chemical identification.

Name : Sulfuric acid (98%)
 CAS number(s) : 7664-93-9
 EC number : 231-639-5
 Molecular formula : H₂O₄S
 Structure :



3. Uses and Benefits

It is used in the manufacture of superphosphate fertiliser, inorganic and petro-chemicals, explosives and pigments. Components of heavy duty metal cleaners, pickles. In manufacture of rayon, cellulose film. As battery electrolyte and also in electroplating processes.

4. Physical / chemical properties

Property	Value
Physical state :	Liquid
Colour :	Colourless
Odour :	Odourless
pH :	NDA
Melting point :	10.4 - 10.5 °C
Boiling point :	310 - 335°C
Flash point :	NDA
Density :	1.835 kg/L (20°C)

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Solubility in Water:	1 000 g/L at 20 °C
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5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	NA
Irritation / corrosion Skin / eye/ respiratory tract	Causes severe skin burns and eye damage
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	NA
Genotoxicity / Mutagenicity	NA
Carcinogenicity	NA
Toxicity for reproduction	NA

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	No
Fate and behavior	Result
Persistence and degradability	Not rapidly degradable
Bioaccumulative potential	No information available

7. Exposure

Human health

Sulfuric acid (98%) is toxic to inhaled,It causes severe skin burns and eye damage.Irritation to the eyes and airways, erosion of the teeth,damage to the skin.The exposure must be kept as minimum as possible by the use of appropriate risk management measures suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.Careless handling or accidental spillage of the chemical could result in exposure to potentially hazardous levels of chemicals.Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

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Environment

Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release. More information about release measures and accidental release measures are available in the extended safety data sheet.

8. Risk Management Recommendations

Human health measures

Organizational	A basic standard of occupational hygiene is recommended. Ensure operatives are well informed of the hazards and trained to minimise exposures. Ensure regular inspection and maintenance of equipment and machines. Handle and store according to the indications of the Safety Data Sheet.	
Protection	Eye protection:	safety goggles.
	Skin and body protection:	protective gloves wear a sufficiently long apron and boots or a suitable chemical protection suit
	Respiratory protection:	Use insulating devices for concentrations above the usage limits for filter devices, for oxygen concentrations below 17% volume, or in circumstances which are unclear.
Engineering controls	Ensure good ventilation of the work station.	
Environment protective measures		
Avoid release to the environment		

9. First-aid measures

First-aid measures after inhalation: Remove the person to fresh air and keep them comfortable for breathing. If you feel unwell, seek medical advice..

First-aid measures after skin contact: Wash contaminated clothing before reuse. Get immediate medical advice/attention. After Contact with skin, take off all contaminated clothing immediately, and wash immediately with plenty of water. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact: Get medical advice/attention. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : If swallowed, seek medical advice immediately and show this container or label. Get medical advice/attention. Rinse mouth. Do not induce vomiting. Call a physician immediately.

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10. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media :No information available.

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire:On burning: release of toxic and corrosive gases/vapours (sulphur dioxide).

Advice for firefighters

Precautionary measures fire :Cool surrounding containers with water spray.If possible, take the container out of the dangerous zone.Rise in pressure and risk of bursting when heating.Contain vapours with water spray.

Firefighting instructions: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

11. Accidental release measures

Protective equipment :Protective clothing. Protective goggles. Wear recommended personal protective equipment.Do not attempt to take action without suitable protective equipment. Protective gloves. Self-contained breathing apparatus. Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product.

Environmental precautions: Avoid release to the environment.

For containment : Contain released product, collect/pump into suitable containers. Take account of toxic/corrosive precipitation water. Heat exposure: dilute toxic gas/vapour with water spray.

12. Disposal consideration

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

13. Handling and storage

Precautions for safe handling:Ensure good ventilation of the work station. Clean contaminated clothing. Handle carefully.Keep the container tightly closed. Keep only in the original container. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

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Hygiene measures :Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

14. Classification and Labeling

Hazard pictograms (CLP)



GHS05

Signal word (CLP)

Hazard statements (CLP)

Precautionary statements (CLP)

- : Danger
- : H314 - Causes severe skin burns and eye damage.
- : P260 - Do not breathe dust, fume, gas, mist, spray, vapours.
- P264 - Wash hands, forearms and face thoroughly after handling.
- P280 - Wear protective clothing, eye protection, face protection, protective gloves.
- 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 CENTER, a doctor.
- P321 - Specific treatment (see supplemental first aid instruction on this label).
- P405 - Store locked up.
- P501 - Dispose of container, contents to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

15. Conclusion

Sulfuric acid (98%) is colourless odourless liquid. Non-combustible substance. Slightly viscous, strongly hygroscopic. Mixable with water. Aqueous solution reacts acidic. Not volatile. Acts oxidizing with increasing temperature. Concentrated sulphuric acid can destroy organic substances by dehydration under charring. Acute or chronic health hazards result from the substance. The substance can react dangerously with: aluminium organic substances, reducing agents, nitric acid, acetonitrile; acrolein/occlusion; acrylonitrile; aluminium; aminoethanol; conc. ammonia; aniline; bromine pentafluoride; calcium, hydride; p-chloronitrobenzene + sulfur trioxide (heat); chlorine trifluoride; hydrogen chloride/conc. sulfuric acid; 2-cyano-2-propanol; cyclopentanone oxime (heat); 1,4-diazidobenzene; diethyl ether; p-dimethylaminobenzaldehyde; alkaline earth oxides; acetic acid; acetic anhydride/inclusion; ethylene cyanohydrin; ethylenediamine; synthesis; heat; copper; lithium silicide; highly flammable solvents; metals/ diluted acid; 4-methylpyridine; sodium carbonate; sodium thiocyanate; p-nitroacetanilide (heat); p-nitroaniline (heat); p-nitroaniline sulfate (heat); p-nitroaniline sulfuric acid (heat); m-nitrobenzenesulfonic acid; phosphorus, red and white; phosphorus trioxide; propene oxide; mercury; silver; tetramethylbenzene; 1,2,4,5-tetrazine; water/conc. sulfuric acid; sugar. There is a risk of a dust explosion if the following conditions are met: substance is given in very finely distributed form (powder, dust) it is whirled up in sufficient quantity in the air. An ignition source is present (flame, spark, electrostatic discharge, etc.). Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

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16. Contact Information within company

Manufacturer

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400080 Mumbai - India

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info@aarti-industries.com - www.aarti-industries.com

This GPS safety summary is intended to give general information about the health, safety and environment and not intended to provide in-depth details. To obtain the most accurate and current information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.