

Material Safety Data Sheets

1. IDENTIFICATION

Product Name	Ammonium sulphate
Other Names	Diammonium sulfate; Sulfuric acid diammonium salt
Uses	Relevant uses: Laboratory. For professional users only
Chemical Family	No Data Available
Chemical Formula	$(\text{NH}_4)_2\text{SO}_4$
Chemical Name	No Data Available
Product Description	No Data Available
Company	Arman sina.co
Contact Information	info@armansina.com www.armansina.com

2. HAZARD IDENTIFICATION

Hazard Categories	Harmful if swallowed
Risk Phrases	No Data Available
Safety Phrases	No Data Available

Symbol



3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Ammonium sulphate	$(\text{NH}_4)_2\text{SO}_4$	7783-20-2	95.00 - 100.00%

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	In case of consumption in large quantities, it is recommended to seek medical assistance.
Eye	Rinse with water until the product has been eliminated. In case of problems, consult a doctor showing the SDS for the product.
Skin	In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet
Inhaled	In case of symptoms, move the person affected into fresh air.
Advice to Doctor	Consult a doctor in case of discomfort showing the SDS for the product.

5. FIRE FIGHTING MEASURES

General Measures	No Data Available
Flammability Conditions	Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.
Extinguishing Media	Product is non-flammable, with a low risk of fire due to the flammability characteristics of the product in normal conditions of storage, handling and use. In the case of the existence of sustained combustion as a result of improper handling, storage or use any type of extinguishing agent can be used (ABC Powder, water,...)
Fire and Explosion Hazard	Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks.
Hazardous Products of Combustion	Under fire conditions, hazardous fumes will be present.
Special Fire Fighting Instructions	DO NOT fight fire when fire reaches explosives.
Personal Protective Equipment	Protective equipment and precautions for firefighters Wear a self-contained breathing apparatus and chemical protective clothing.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure

Clean Up Procedures	Spilled product must never be returned to the original container for recycling. Clean contaminated objects and areas thoroughly observing environmental regulations. Collect in closed and suitable containers for disposal.
Containment	Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	No Data Available
Environmental Precautionary Measures	Do not allow to enter into surface water or drains.
Evacuation Criteria	No Data Available
Personal Precautionary Measures	For non-emergency personnel: Isolate leaks provided that there is no additional risk for the people performing this task. For emergency responders: Wear protective equipment. Keep unprotected persons away. See section 8

7. HANDLING AND STORAGE

Handling	Avoid: Inhalation Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Protect from moisture.
Storage	Recommended storage temperature: Ambient temperature Keep container tightly closed and in a well-ventilated place.
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	Does not contain substances above concentration limits fixing an occupational exposure limit. Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.
Exposure Limits	No Data Available
Biological Limits	No Data Available
Engineering Measures	Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.
Personal Protection Equipment	Wear suitable protective clothing. When handling with chemical substances, protective clothing must be worn. Eye/face protection: Eye glasses with side protection Skin protection: Wear suitable gloves. When handling with chemical substances, protective gloves must be worn. In the case of wanting to use the gloves again, clean them before taking off and air them well. Check leak tightness/impermeability prior to use

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid.
Appearance	No Data Available
Odour	No Data Available
Colour	White
pH	5-6 (50 g/l; H ₂ O; 20 °C)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	336-339 °C
Freezing Point	No Data Available
Solubility	754 g/l (20 °C) water
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	235 °C (1013 hPa)
Density	1.78 g/cm ³ (20 °C)
Specific Heat	No Data Available
Molecular Weight	132.14 g/mol

Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No Data Available
Potential for Dust Explosion	No Data Available
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

General Information	The product is stable.
Chemical Stability	Chemically stable under the indicated conditions of storage, handling and use.
Conditions to Avoid	No Data Available
Materials to Avoid	No Data Available
Hazardous Decomposition Products	No Data Available
Hazardous Polymerisation	No Data Available

11. TOXICOLOGICAL INFORMATION

General Information	Information on toxicological effects:
Acute	Acute effects Acute oral toxicity: LD50: > 2840 mg/kg - Rat - (IUCLID) Acute dermal toxicity: no data available Acute inhalation toxicity: no data available Irritant and corrosive effects Primary irritation to the skin: not applicable Irritation to eyes: not applicable Irritation to respiratory tract: not applicable Respiratory or skin sensitization In case of skin contact: not sensitising After inhalation: not sensitising.

Carcinogen Category	No data available
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12. ECOLOGICAL INFORMATION

Ecotoxicity	No Data Available
Persistence/Degradability	No Data Available
Mobility	No Data Available
Environmental Fate	No Data Available
Bioaccumulation Potential	No Data Available
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.
Special Precautions for Land Fill	No Data Available

14. TRANSPORT INFORMATION

Land Transport

Proper Shipping Name	Ammonium sulphate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	No Data Available

Sea Transport

Proper Shipping Name	Ammonium sulphate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No Data Available

Comments	No Data Available
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Air Transport

Proper Shipping Name	Ammonium sulphate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	No Data Available

15. OTHER INFORMATION

Revision	2
Key/Legend	<p>< Less Than</p> <p>> Greater Than</p> <p>AICS Australian Inventory of Chemical Substances</p> <p>atm Atmosphere</p> <p>CAS Chemical Abstracts Service (Registry Number)</p> <p>cm² Square Centimetres</p> <p>CO2 Carbon Dioxide</p> <p>COD Chemical Oxygen Demand</p> <p>deg C (° C) Degrees Celcius</p> <p>EPA (New Zealand) Environmental Protection Authority of New Zealand</p> <p>deg F (° F) Degrees Farenheit</p> <p>g Grams</p> <p>g/cm³ Grams per Cubic Centimetre</p> <p>g/l Grams per Litre</p> <p>HSNO Hazardous Substance and New Organism</p> <p>IDLH Immediately Dangerous to Life and Health</p> <p>immiscible Liquids are insoluable in each other.</p> <p>inHg Inch of Mercury</p> <p>inH2O Inch of Water</p> <p>K Kelvin</p> <p>kg Kilogram</p> <p>kg/m³ Kilograms per Cubic Metre</p> <p>lb Pound</p> <p>LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.</p> <p>LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.</p> <p>ltr or L Litre</p> <p>m³ Cubic Metre</p> <p>mbar Millibar</p> <p>mg Milligram</p> <p>mg/24H Milligrams per 24 Hours</p>

mg/kg Milligrams per Kilogram
mg/m³ Milligrams per Cubic Metre
Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre
mmH₂O Millimetres of Water
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Health and Safety Commission
OECD Organisation for Economic Co-operation and Development
Oz Ounce
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight