SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Ferrous Ammonium Sulfate 0.1N
CAS number	See section 3
Synonyms	N/A

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

Identified uses	Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1
Corrosive to metals Category 1

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal Word	Danger
Hazard statements	Causes severe skin burns and eye damage. May be corrosive to metals.
Precautionary statements	**Prevention** Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Keep only in original container. **Response** Immediately call a POISON CENTER or doctor/physician. Absorb spillage to prevent material damage. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. **Storage** Store locked up. Store in corrosive resistant container with a resistant inner liner. **Disposal** Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No additional information.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Water	-	7732-18-5	94.08%
Ferrous Ammonium Sulfate, Hexahydrate	-	7783-85-9	3.92%
Sulfuric Acid	-	7664-93-9	2.0%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice	National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.
If inhaled	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.
In case of skin contact	Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or Poison Control Center immediately.
In case of eye contact	Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.
If swallowed	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If victim is conscious, give water or milk. Follow with Milk of Magnesia or egg whites beaten with water. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Severe skin and eye irritation or burns. Causes digestive (gastrointestinal) tract irritation. May cause gastrointestinal (digestive) tract burns. Ingestion may cause vomiting and nausea. Abdominal pain. May cause metabolic acidosis. May affect the liver. It may affect the kidneys. Central nervous system effects.

4.3 Indication of any immediate medical attention and special treatment needed

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.
Unsuitable extinguishing media	No information available.

5.2 Specific hazards arising from the substance or mixture

For dilute Sulfuric acid:
White Phosphorous + boiling Sulfuric acid or its vapor ignites on contact.
May cause fire when sulfuric acid is mixed with Cyclopentadiene, cyclopentanone oxime, nitroaryl amines,hexalithium disilicide, phorphorous (III) oxide, and oxidizing agents such as chlorates, halogens, permanganates.
Mixtures of sulfuric acid and any of the following can explode: p-nitrotoluene, pentasilver trihydroxydiaminophosphate, perchlorates, alcohols with strong hydrogen peroxide, ammonium tetraperoxychromate, mercuric nitrite, potassiumchlorate, potassium permanganate with potassium chloride, carbides, nitro compounds, nitrates, carbides, phosphorous, iodides, picratres, fulminates, dienes, alcohols (when heated).
1,3,5-Trinitrosohexahydro-1,3,5-triazine + sulfuric acid causes explosive decompositon.

5.3 Special protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available.
Lower No data available.

Sensitivity to Mechanical Impact No information available.
Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
2	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Prevent entry intowaterways,sewers, basements or

6.3 Methods and materials for containment and cleaning up
Stop leak if you can do it without risk. Neutralize with Sodium carbonate or Sodium bicarbonate. Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. Clean contaminated surface thoroughly.

6.4 Reference to other sections
No additional information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Use only in well-ventilated areas.Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Hygiene measures

Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wear suitable gloves and eye/face protection.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area. May corrode metallic surfaces. Do not store in uncoated metallic containers.

Incompatibilities

Oxidizing agents
Reducing agents
Bases
Organic materials
Combustible materials
Amines
Metals
Strong acids

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Water	-	None
Ferrous Ammonium Sulfate, Hexahydrate	-	None
Sulfuric Acid	TWA	1 mg/m3

US. ACGIH Threshold Limit Values

Component	Type	Value
Water	-	None
Ferrous Ammonium Sulfate, Hexahydrate	TWA	1 mg/m3 (as Fe)
Sulfuric Acid	TWA thoracic fraction	0.2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Water	-	None
Ferrous Ammonium Sulfate, Hexahydrate	TWA	1 mg/m3 (as Fe)

Sulfuric Acid	TWA	1 mg/m3

Biological occupational exposure limits
No information available.

8.2 Exposure controls

Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Personal protective equipment

Eye/face protection
Face-shield.

Skin protection
Gloves.

Body Protection
Boots.
Chemical resistant apron.
Long-sleeved clothes.

Respiratory protection
Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Control of environmental exposure
Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wear suitable gloves and eye/face protection.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear, light green
Odor	Odorless
Odor Threshold	No information available
pH	Acidic
Melting Point/Range	No information available
Boiling Point/Range	>100°C/>212°F
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	No information available
Upper	No information available
Lower	No information available

Vapor Pressure	No information available
Vapor Density	No information available
Density	No information available
Solubility	Easily soluble in water
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	No information available
Molecular Weight	No information available
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

For Sulfuric Acid:
It reacts with alcohols and amines
Incompatible (can react explosively or dangerously) with the following: ACETIC ACID, ACRYLIC ACID, AMMONIUM HYDROXIDE, CRESOL, CUMENE, DICHLOROETHYL ETHER, ETHYLENE CYANOHYDRIN, ETHYLENEIMINE, NITRICACID,2-NITROPROPANE, PROPYLENE OXIDE, SULFOLANE, VINYLIDENE CHLORIDE, DIETHYLENE GLYCOL MONOMETHYLETHER, ETHYL ACETATE, ETHYLENE CYANOHYDRIN, ETHYLENE GLYCOL MONOETHYL ETHER ACETATE, GLYOXAL, METHYL ETHYL KETONE, dehydrating agents, organic materials, moisture (water), Acetic anhydride, Acetone, cyanohydrin, Acetone+nitric acid, Acetone + potassium dichromate, Acetonitrile, Acrolein, Acrylonitrile, Acrylonitrile+water, Alcohols+hydrogen peroxide, ally compounds such as Allyl alcohol, and Allyl Chloride, 2-Aminoethanol, Ammonium hydroxide, Ammonium triperchromate, Aniline, Bromate + metals, Bromine pentafluoride, n-Butyraldehyde, Carbides, Cesium acetylene carbide, Chlorates, Cyclopentanone oxime, chlorinates, Chlorates + metals, Chlorine trifluoride, Chlorosulfonic acid, 2-cyano-4-nitrobenzenediazonium hydrogen sulfate, Cuprous nitride, p-chloronitrobenzene, 1,5-Dinitronaphthlene +sulfur, Diisobutylene, p-dimethylaminobenzaldehyde, 1,3-Diazidobenzene, Dimethylbenzylcarbinol + hydrogen peroxide, Epichlorohydrin,Ethyl alcohol + hydrogen peroxide, Ethylene diamine, Ethylene glycol and other glycols, , Ethylenimine, Fulminates, hydrogen peroxide, Hydrochloric acid, Hydrofluoric acid, Iodine heptafluoride, Indane + nitric acid, Iron, Isoprene, Lithium silicide, Mercuric nitride, Mesityl oxide, Mercury nitride, Metals (powdered), Nitromethane, Nitric acid + glycerides, p-Nitrotoluene, Pentasilver trihydroxydiaminophosphate, Perchlorates, Perchloric acid, Permanganates + benzene, 1-Phenyl-2-methylpropyl alcohol +hydrogen peroxide, Phosphorus, Phosphorus isocyanate, Picrates, Potassium tert-butoxide, Potassium chlorate, PotassiumPermanganate and other permanganates, halogens, amines, Potassium Permanganate + Potassium chloride, Potassium Permanganate + water, Propiolactone (beta)-, Pyridine, Rubidium aceteylene carbide, Silver permanganate, Sodium, Sodiumcarbonate, sodium hydroxide, Steel, styrene monomer, toluene + nitric acid, Vinyl acetate, Thalium (I) azidodithiocarbonate, Zincchlorate, Zinc Iodide, azides, carbonates, cyanides, sulfides, sulfites, alkali hydrides, carboxylic acid anhydrides, nitriles, olefinicorganics, aqueous acids, cyclopentadiene, cyano-alcohols, metal acetylides.
Evolves flammable hydrogen gas on contact with metals.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerization does not occur.

10.4 Conditions to avoid
Incompatible materials.

10.5 Incompatible materials
Oxidizing agents
Reducing agents
Bases
Organic materials
Combustible materials
Amines
Metals
Strong acids

10.6 Hazardous decomposition products
Sulfur oxides. Iron oxides. Ammonia. Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	> 90 mL/kg Oral LD50 Rat	No information available	No information available
Ferrous Ammonium Sulfate, Hexahydrate	3250mg/kg oral LD50 rat	No information available	No information available
Sulfuric Acid	2140 mg/kg Oral LD50 Rat	No information available	510 mg/m3 Inhalation LC50 Rat 2h

Skin corrosion/irritation
Causes severe irritation and burns. Can cause burning pain, inflammation and blisters.

Serious eye damage/eye irritation
Causes eye burns. Risk of serious damage to eyes. Can cause severe injury. May cause irreversible eye damage.

Respiratory or skin sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	N/A
Ferrous Ammonium Sulfate, Hexahydrate	7783-85-9	Not listed	Not listed	Not listed	Not listed	N/A
Sulfuric Acid	7664-93-9	Group 1	2 - Known Human Carcinogen	A2- Suspected Human Carcinogen	Present	N/A

Specific target organ toxicity - single exposure

No information available.

Specific target organ toxicity - repeated exposure

No information available.

Reproductive toxicity

No information available.

Chronic effects

For Sulfuric Acid:. Inhalation: Prolonged or repeated inhalation may affect behavior (muscle contraction or spasticity), urinary system(kidney damage), and respiratory system/lungs(pulmonary edema, lung damage/changes in lung function with chronic bronchitis and emphysema), teeth (dental discoloration, erosion).
Skin: Prolonged or repeated skin contact may cause dermatitis. Eyes: Conjunctivitis is also a common finding with chronic exposure.
For Ferrous Ammonium Sulfate, hexahydrate:. Repeated or prolonged ingestion of iron or iron salts results in increased accumulation of iron in the body, particularly the liver, spleen, and lymphatic system. It may cause Liver damage (Hemosiderosis in the liver), and rarely Hemochromatosis in the Kupffer cells of the liver. Chronic iron poisoning may also cause leukocytosis and anemia. Eyes: Prolonged eye contact may cause conjunctivitis. Prolonged eye contact may cause a brownish discoloration of the eyes.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Toxic in aquatic environments.

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment
No information available.

12.6 Endocrine disrupting properties
No information available.

12.7 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods
Waste must be disposed of in accordance with Federal, State and Local regulation.

SECTION 14: Transport information

DOT (US)

UN Number	UN3264
Proper Shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (sulfuric acid)
Hazard Class	8
Packaging Group	II
Technical name	Ferrous Ammonium Sulfate 0.1N Solution

IMDG

UN Number	UN3264
Proper Shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (sulfuric acid)
Hazard Class	8
Packaging Group	II
Technical name	Ferrous Ammonium Sulfate 0.1N Solution

IATA

UN Number	UN3264
Proper Shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (sulfuric acid)
Hazard Class	8
Packaging Group	II
Technical name	Ferrous Ammonium Sulfate 0.1N Solution

SECTION 15: Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

CERCLA Hazardous Substance List (40 CFR 302.4)
Sulfuric Acid (7664-93-9): RQ= 1000 lb.

SARA 304 Emergency release notification
Ferrous Ammonium Sulfate Hexahydrate (7783-85-9): RQ= 1000 lb.
Sulfuric Acid (7664-93-9): RQ= 1000 lb.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous
Ferrous Ammonium Sulfate Hexahydrate (7783-85-9): Immediate (acute) health hazard.
Sulfuric Acid (7664-93-9): Immediate (acute) health hazard.

SARA 313 (TRI reporting)
Sulfuric Acid 2%: Listed.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not listed.

Safe Drinking Water Act
Sulfuric Acid (7664-93-9): RQ= 1,000,000 lb.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed.

US state regulations

US. Massachusetts RTK - Substance List
Listed.

US. New Jersey Worker and Community Right-to-Know Act
Listed.

US. Pennsylvania Worker and Community Right-to-Know Law
Listed.

California Proposition 65

Listed.

SECTION 16: Other information

Date of Issue: 5/28/2025

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.