Identification Section 1 Page E1 of E2

INNOVATING SCIENCE®

"Cutting edge science for the classroom"

(585) 226-6177

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

THIONIN **Product**

SDS No.: TT0105

Synonyms Lauth's Violet / Phenothiazin-5-ium, 3,7-diamino-, chloride

Section 2 Hazards identification

Signal word: WARNING Pictograms: GHS07 Target organs: None known



GHS Classification:

Acute toxicity, oral (Category 4) Acute toxicity, dermal (Category 4) Acute toxicity, inhalation (Category 4)

GHS Label information: Hazard statement:

H302: Harmful if swallowed H312: Harmful in contact with skin. H332: Harmful if inhaled.

P270: Do not eat, drink or smoke when using this product.

Precautionary statement:

P261: Avoid breathing dust.

P264: Wash hands thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or

physician if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty of water and soap.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P362+P364: Take off immediately all contaminated clothing and wash it before reuse. P501: Dispose of contents/container to a licensed chemical disposal agency in

accordance with local/regional/national regulations.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / information on ingredients								
Chemical Name	CAS#	%	EINECS					
Thionin (Dye content >85%)	581-64-6	100%	209-470-3					

Section 4 First aid measures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire fighting measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage Page E2 of E2

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. Keep out of reach of children. Use with adequate ventilation. Wash thoroughly after handling.

Handling: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale dusts. Wash thoroughly after handling. Remove and wash clothing before reuse.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8	Exposure controls / personal protection							
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)				
Exposure Limits:	Particles not otherwise classified	TWA: 5 mg/m ³ respirable fraction	None established.	None established.				

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical and chemical properties

Appearance: Solid. Dark green, crystalline powder.

Odor: No odor.

Odor threshold: Data not available.

pH: Data not available.

Melting / Freezing point: Data not available

Boiling point: Data not available Flash point: Not applicable

Section 10 Stability and reactivity

Evaporation rate (= 1): Not applicable
Flammability (solid/gas): Not applicable
Explosion limits: Lower / Upper: Not applicable
Vapor pressure (mm Hg): Data not available

Vapor density (Air = 1): Data not available Relative density (Specific gravity): Data not available

Solubility(ies): Complete in water

Partition coefficient: Data not available
Auto-ignition temperature: Not applicable
Decomposition temperature: Data not available.

Viscosity: Data not available. **Molecular formula:** C₁₂H₁₀N₃SCI **Molecular weight:** 263.75

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures and heat. Protect from light.

Incompatibilities with other materials: Strong oxidizers.

Hazardous decomposition products: Oxides of carbon, oxides of sulfur, oxides of nitrogen.

Section 11 Toxicological information

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects: Inhalation: Harmful if inhaled. Ingestion: Harmful if swallowed. Skin: Harmful in contact with skin.

Eyes: Contact with eyes may cause irritation.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is

not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: SN5425000

Section 12 Ecological information

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available

Mobility in soil: No data available

Bioaccumulative potential: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport information

UN/NA number: Not applicable
Hazard class: Not applicable
Packing group: Not applicable
Exceptions: Not applicable
Shipping name: Not Regulated
Packing group: Not applicable
Reportable Quantity: No Marine pollutant: No

2020 ERG Guide # Not applicable

Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

С	Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Thionin		Listed	Not listed	Not listed	Listed		This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Identification Section 1 Page E1 of E2

INNOVATING SCIENCE

"Cutting edge science for the classroom"

(585) 226-6177

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

IRON(II) SULFATE, HEPTAHYDRATE **Product**

Synonyms Ferrous Sulfate, 7-Hydrate

Section 2 Hazards identification

Signal word: WARNING Pictograms: GHS07 Target organs: Liver, Kidneys



GHS Classification:

Acute toxicity (Category 4) Skin irritant (Category 2) Eye irritant (Category 2)

GHS Label information: Hazard statement:.

H302: Harmful if swallowed. H315: Causes skin irritation. H319: Causes serious eye irritation. Precautionary statement:

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor

if you feel unwell.

P302+P352: IF ON SKIN: Wash with plenty of water and soap.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P332+P313: If skin irritation occurs: Get medical attention. P337+P313: If eye irritation persists: Get medical attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P501: Dispose of contents/container to a licensed chemical disposal agency in

accordance with local/regional/national regulations.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Compos	tion 3 Composition / information on ingredients								
Chemical Name		CAS#	%	EINECS					
Ferrous sulfate, heptahydrate		7782-63-0	100%	231-753-5					
Section 4 First air	l moacuroc								

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. May cause respiratory tract irritation.

EYE CONTACT: CAUSES IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: CAUSES IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire fighting measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage Page E2 of E2

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8	Exposure controls / personal protection								
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)					
	Iron salts, soluble, as Fe	TWA: 1 mg/m ³	None established	TWA: 1 mg/m ³					

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical and chemical properties

Appearance: Solid. Blue-green crystalline powder

Odor: No odor.

Odor threshold: Data not available

pH: Data not available.

Melting / Freezing point: 72°C (147°F)

Boiling point: Decomposes Flash point: Not flammable

Evaporation rate (= 1): Data not available Flammability (solid/gas): Not applicable Explosion limits: Lower / Upper: Not applicable

Vapor pressure (mm Hg): 14.6 Vapor density (Air = 1): 9.6

Relative density (Specific gravity): 1.897 Solubility(ies): 16 g/100 ml water @ 20°C Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available

Marine pollutant: No

Viscosity: Data not available. Molecular formula: FeSO₄•7H₂O Molecular weight: 278.02

Section 10 Stability and reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Hygroscopic material. Efflorescent in dry air. Oxidizes in moist air forming a brown coating of basic ferric sulfate.

Incompatible materials: Strong oxidizers, alkalies, nitric acid. Aqueous solutions are oxidized slowly by air when cold, rapidly when hot. Rate of oxidation increased by addi-

tion of alkali or exposure to light.

Hazardous decomposition products: Oxides of sulfur.

Section 11 Toxicological information

Acute toxicity: Oral-rat LD50: 1480 mg/kg Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation may cause respiratory tract irritation.

Ingestion: Ingestion can produce gastrointestinal tract disturbances, severe shock, vomiting, liver and kidney damage and even death.

Skin: Contact with skin may cause irritation or allergic reaction. Eyes: Contact with eyes is irritating and can be damaging.

Signs and symptoms of exposure: See Potential health effects above.

Additional information: RTECS #: NO8510000
Section 12 Ecological information

Toxicity to fish: Poecilia reticulata (fish, fresh water), LC50 = 925 mg/l/96 hours

Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea), EC50 = 152 mg/l/48 hours

Toxicity to algae: No data available

Persistence and degradability: No data available

Mobility in soil: No data available

Bioaccumulative potential: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport information

UN/NA number: Not applicable
Hazard class: Not applicable
Exceptions: Not applicable
Shipping name: Not Regulated
Packing group: Not applicable
Reportable Quantity: 1,000 lbs. (454 kg)
2020 ERG Guide # Not applicable

Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Ferrous sulfate, heptahydrate	Listed	1,000 lbs. (454 kg)	Not listed	Not listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or
						reproductive toxicity

Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: October 10, 2022 Supercedes: September 30, 2020

Section 1 Identification Page E1 of E2

INNOVATING SCIENCE

"Cutting edge science for the classroom"

221 Rochester Street Avon, NY 14414-9409 (585) 226-6177 CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300

For laboratory and industrial use only. Not for drug, food or household use.

Product SULF

SULFURIC ACID, 3 Molar (6 Normal) Solution

Hazards identification

Synonyms Sulf

Section 2

Sulfuric Acid, Water Solution (3M/6N)

Signal word: DANGER

DANGER

Pictograms: GHS05 / GHS06 / GHS08

Target organs: Respiratory system, skin, eyes, teeth.







GHS Classification:

Corrosive to metals (Category 1) Skin corrosion (Category 1A) Eye damage (Category 1) Acute toxicity, inhalation (Category 2) Carcinogenicity (Category 1A)

GHS Label information: Hazard statement(s):

H290: May be corrosive to metals.

H314: Causes severe skin burns and eye damage.

H330: Fatal if inhaled. H350: May cause cancer.

Precautionary statement(s):

P234: Keep only in original container.
P260: Do not breathe mist/vapours/spray.
P264: Wash hands thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

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

P284: Wear respiratory 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/shower.

P363: Wash contaminated clothing before reuse.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P310: Immediately call a POISON CENTER or doctor.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P390: Absorb spillage to prevent material damage.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P406: Store in corrosive resistant container with a resistant inner liner.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3	Composition / information on ingredients								
Chemical Name		CAS#	%	EINECS					
Water		7732-18-5	84.30%	231-791-2					
Sulfuric acid		7664-93-9	15.70%	231-639-5					

Section 4 First aid measures

INGESTION: Harmful or fatal if swallowed. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Harmful or fatal if inhaled. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Causes severe burns. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: Causes severe burns. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire fighting measures

Suitable Extinguishing Media: Product is a water reactive material, DO NOT USE WATER! Use dry chemicals only for extinguishing.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water on combustibles burning in vicinity of acid but use care as water applied to the acid results in severe generation of heat and may cause boiling and splattering. Sulfuric acid will not burn, but is capable of igniting finely divided combustible materials on contact. May react violently with organic materials and water with the evolution of heat. Contact with reactive metals, e.g. aluminum, may result in the generation of flammable hydrogen gas.

Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways

Containment and Cleanup: Remove all sources of ignition. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Page E2 of E2 Section 7 Handling and storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances. Hygroscopic material. Never add water to this solution, always add acid, slowly and in small amounts to water to avoid splattering

Section 8 Exposure controls / personal protection **Chemical Name** ACGIH (TLV) OSHA (PEL) NIOSH (REL) **Exposure Limits:** TWA: 0.2 mg/m³(A2) TWA: 1 mg/m³ Sulfuric acid TWA: 1 mg/m³

Engineering controls: Facilities storing or utilizing this material should be equipped with an evewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Partition coefficient: Data not available

Viscosity: Data not available.

Molecular formula: Mixture

Molecular weight: Mixture

Auto-ignition temperature: Data not available

Decomposition temperature: Data not available.

Respiratory protection: Use a chemical fume hood and/or wear a NIOSH/MSHA-approved respirator.

Physical and chemical properties Section 9

Appearance: Clear to slightly cloudy liquid.

Odor: Slightly pungent odor.

Odor threshold: Data not available

pH: Data not available.

Melting / Freezing point: Approximately 0°C (32°F) (water) Boiling point: Approximately 100°C (212°F) (water)

Flash point: Data not available

Section 10 Stability and reactivity

Chemical stability: Stable

Hazardous polymerization: Will not occur. Conditions to avoid: Avoid contact with water and heat. Avoid temperatures above 250°C (482°F). Incompatible materials: Alkalies, amines, anhydrides, combustibles, organics, oxidizers, powdered metals.

Hazardous decomposition products: Sulfur trioxide and/or sulfur dioxide. Hydrogen gas by reaction with metals.

Section 11 Toxicological information

Acute toxicity: Oral-rat LD50: 2140 mg/kg; Inhalation-rat LC50: 510 mg/m3/2 hours (Sulfuric acid) Skin corrosion/irritation: Skin-rabbit - causes burns (Sulfuric acid)

Serious eye damage/irritation: Eyes-rabbit - causes burns (Sulfuric acid)

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available Carcinogenity: Data not available

NTP: This product contains a chemical known to be a human carcinogen. (Sulfuric acid)
IARC classified: Group 1: Carcinogenic to humans. [Acid mists, strong inorganic]
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Evaporation rate (Water = 1): <1

Vapor pressure (mm Hg): 14 (water)

Vapor density (Air = 1): 0.7 (water)

Solubility(ies): Complete in water.

Flammability (solid/gas): Data not available.

Explosion limits: Lower / Upper: Data not available

Relative density (Specific gravity): Approximately 1.0 (water)

CA Prop 65: 🛦 WARNING! : This product can expose you a chemical, Strong inorganic acid mists containing sulfuric acid, which is known to the State of California to cause cancer

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation of this material is irritating and/or corrosive to the nose, throat and lungs. It may also cause burns to the respiratory tract with the production of lung edema which can result in shortness of breath, wheezing, choking, chest pain and impairment of lung function. Inhalation of high concentrations may result in permanent lung damage. Repeated inhalation may cause bronchitis, and also etching of dental enamel followed by the erosion of the enamel and dentine with loss of tooth substance. Ingestion: Ingestion may cause irritation and/or burns to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea,

abdominal pain, bleeding and/or tissue ulceration.

Skin: Skin contact can cause severe irritation and/or burns characterized by redness, swelling and scab formation.

Eyes: Severe irritation and/or burns can occur following eye exposure. Contact may cause impairment of vision and corneal damage.

Signs and symptoms of exposure: Burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Additional information: RTECS #: WS5600000 (Sulfuric acid)

Ecological information

Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 42 mg/l - 96 h (Sulfuric acid)

Toxicity to daphnia and other aquatic invertebrates: Crangon crangon (crustacea) 70-80 mg/l/48 hours (Sulfuric acid)

Toxicity to algae: No data available

Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 **Disposal considerations**

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport information

UN/NA number: UN2796 Shipping name: Sulfuric acid

Hazard class: 8 Packing group: || Reportable Quantity: 1,000 lbs (454 kg) Marine pollutant: No

Exceptions: Limited quantity equal to or less than 1 L 2020 ERG Guide # 157

Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Sulfuric acid	Listed	1000 lbs (454 kg)	D002	Listed	Not listed	⚠ WARNING -Cancer - www.P65Warnings.ca.gov.

Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook

Revision Date: November 16, 2022 Supercedes: October 27, 2020 Form 06/2015