

SAFETY DATA SHEETS

This SDS packet was issued with item:

078115955

N/A

MSDS**Material Safety Data****JorVel™****Jorgensen Laboratories, Inc.**1450 North Van Buren Avenue
Loveland, CO 80538**Acid Fast Stain Set**

Product Code: J326AS

Effective Date:

SEP 21 2009

24 Hour Emergency Telephone:

CMB: (800)535-5053

All non-emergency questions may be directed to customer service @ 1-970-669-2500 or fax 1-970-663-5042

HAZARDOUS INFORMATION**Product Identification****Acid Fast Stain Set Solution 1, Kinyoun Carbol Fuchsin**

Hazardous Ingredient: Phenol, 7.5%	CAS #: 108-95-2	Molecular Weight: 94.11	Chemical Formula: C_6H_5OH
Ethanol, 15%	CAS #: 64-17-5	Molecular Weight: 46.07	Chemical Formula: CH_3CH_2OH
Basic Fuchsin, 3%	CAS #: 569-61-9	Molecular Weight: 323.8	Chemical Formula: $C_{19}H_{18}NiCl$

Acid Fast Stain Set Solution 2, Methanol

Hazardous Ingredient: Methanol, 100%
Synonyms: methyl alcohol, wood alcohol, carbinol
CAS #: 67-56-1
Molecular Weight: 32.04
Chemical Formula: CH_3OH

Acid Fast Stain Set Solution 3, Ethanol, 50%

Hazardous Ingredient: Denatured Ethanol, 50%
Synonyms: doubly denatured ethanol, modified 3A alcohol, alcohol anhydrous
CAS #: 64-17-5
Molecular Weight: 46.07
Chemical Formula: CH_3CH_2OH

Acid Fast Stain Set Solution 4, Sulfuric Acid, 1%

Hazardous Ingredient: Sulfuric Acid, 1%
Synonyms: oil of vitriol, babcock acid.
CAS #: 7664-93-9
Molecular Weight: 98.08
Chemical Formula: H_2SO_4

Acid Fast Stain Set Solution 5, Loeffler's Methylene Blue

Hazardous Ingredient: Denatured Ethanol, 23%
Synonyms: doubly denatured ethanol, modified 3A alcohol, alcohol anhydrous
CAS #: 64-17-5
Molecular Weight: 46.07
Chemical Formula: CH_3CH_2OH

HAZARDS IDENTIFICATION**Emergency Overview****Acid Fast Stain Set Solution 1, Kinyoun Carbol Fuchsin:**

POISON! DANGER! VAPOR HARMFUL MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. May stain skin and clothing.

SAFETY RATINGS: Health: 3, Severe (Poison) Reactivity: 0, None
Flammability: 1, Slight Contact: 2, Moderate

Protective Equipment: Goggles, Lab Coat or Apron, Gloves, Local or General Exhaust Ventilation.

Storage Code: Blue: Health Hazard.

Acid Fast Stain Set Solution 2, Methanol:

POISON! DANGER! VAPOR HARMFUL MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS.

Product #: J326AS

Acid Fast Stain Set

SAFETY RATINGS: Health: 3, Severe (Poison) Reactivity: 1, Slight
Flammability: 4, Extreme (Flammable) Contact: 1, Slight
Protective Equipment: Goggles, Lab Coat or Apron, Gloves, Local or General Exhaust Ventilation.
Storage Code: Red: Flammable Hazard.

Acid Fast Stain Set Solution 3, Ethanol, 50%:

POISON! DANGER! VAPOR HARMFUL MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS.

SAFETY RATINGS: Health: 3, Severe (Poison) Reactivity: 1, Slight
Flammability: 2, Moderate (Flammable) Contact: 1, Slight
Protective Equipment: Safety Glasses or Goggles, Lab Coat or Apron, Gloves.
Storage Code: Red: Flammable Hazard.

Acid Fast Stain Set Solution 4, Sulfuric Acid, 1%:

HARMFUL IF SWALLOWED As part of good industrial hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

SAFETY RATINGS: Health: 1, Slight Reactivity: 0, None
Flammability: 0, None Contact: 1, Slight
Protective Equipment: Safety Glasses or Goggles, Lab Coat or Apron, Gloves.
Storage Code: Green: Minimal Hazard.

Acid Fast Stain Set Solution 5, Loeffler's Methylene Blue:

POISON! DANGER! MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. MAY CAUSE IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. May stain skin and clothing.

SAFETY RATINGS: Health: 3, Severe (Poison) Reactivity: 1, Slight
Flammability: 2, Moderate (Flammable) Contact: 1, Slight
Protective Equipment: Safety Glasses or Goggles, Lab Coat or Apron, Gloves.
Storage Code: Red: Flammable Hazard.

Potential Health Effects

Acid Fast Stain Set Solutions 1, Kinyoun's; 2, Methanol; 3, Ethanol, 50%:

INHALATION:

Methanol & Ethanol: Slight irritants to the mucous membranes. Toxic effects exerted upon nervous system, particularly the optic nerve. Once absorbed into the body, it is very slowly eliminated. Symptoms of overexposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma, and death. **Phenol:** The major hazard of Phenol is its ability to penetrate the skin rapidly, particularly when liquid, causing severe injury which can be fatal. Phenol also has a strong corrosive effect on body tissue causing severe chemical burns. Due to its local anesthetizing properties, skin burns may be painless.

INGESTION:

Methanol & Ethanol: Toxic! Symptoms parallel inhalation. Can intoxicate and cause blindness. Usual fatal dose: 100-125 milliliters. **Phenol:** Toxic! Symptoms may include burning pain in mouth and throat, abdominal pain, nausea, vomiting, headache, dizziness, muscular weakness, central nervous system effects, increase in heart rate, irregular breathing, coma, and possibly death. Acute exposure is also associated with kidney and liver damage. Ingestion of 1 gram has been lethal to humans.

SKIN CONTACT:

Methanol & Ethanol: Defatting agents and may cause skin to become dry and cracked. Skin absorption can occur, symptoms may parallel inhalation exposure. **Phenol:** May cause irritation or burns. Rapidly absorbed through the skin with systemic poisoning effects to follow, symptoms may parallel inhalation exposure.

EYE CONTACT:

Methanol & Ethanol: Irritant. Continued exposure may cause eye lesions. **Phenol:** Eye burns with redness, pain, blurred vision may occur. May cause severe damage and blindness.

CHRONIC EXPOSURE:

Methanol & Ethanol: Marked impairment of vision and enlargement of the liver have been reported. Repeated or prolonged exposure may cause skin irritation. **Phenol:** Repeated exposure may cause symptoms described for acute poisoning as well as eye & skin discoloration.

AGGRAVATION of PRE-EXISTING CONDITIONS:

Persons with pre-existing skin, eye or central nervous system disorders, or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of the substance.

Acid Fast Stain Set Solutions 4, Sulfuric Acid, 1% & 5, Loeffler's Methylene Blue:**INHALATION:**

No known effects.

INGESTION:

May be harmful. May cause nausea, intoxication, blindness, headache and diarrhea.

SKIN CONTACT:

May cause irritation.

EYE CONTACT:

May cause irritation.

CHRONIC EXPOSURE:

No information available.

AGGRAVATION of PRE-EXISTING CONDITIONS:

No information available.

FIRST AID MEASURES

Acid Fast Stain Set Solutions 1, Kinyoun's; 2, Methanol; 3, Ethanol, 50%:**INHALATION:**

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

INGESTION:

Methanol & Ethanol: Induce vomiting immediately as directed by medical personnel. **Phenol:** Immediately administer castor oil or other vegetable oil. Never give anything by mouth to an unconscious person. Be ready to induce vomiting at the advice of physician or poison control center. Castor oil or vegetable oil dosage should be between 15 & 30 cc. Get medical attention immediately.

SKIN CONTACT:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical advise if irritation develops.

EYE CONTACT:

Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Acid Fast Stain Set Solutions 4, Sulfuric Acid, 1% & 5, Loeffler Methylene Blue:**INHALATION:**

Remove to fresh air if effects occur.

INGESTION:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SKIN CONTACT:

Wash with mild soap and water. Get medical advise if irritation develops.

EYE CONTACT:

Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical advise if irritation develops.

FIRE FIGHTING MEASURES

FIRE:

Flash Point: No information available.

Autoignition Temperature: No information available.

Flammable Limits in Air % by Volume: No information available.

EXPLOSION:

Methanol: Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks or flames. Sensitive to static discharge.

FIRE EXTINGUISHING MEDIA:

Use alcohol foam, dry chemical or carbon dioxide.

SPECIAL INFORMATION:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

NFPA RATINGS: Health: 1 Flammability: 3 Reactivity: 0

ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in the Personal Protection Section. Collect liquid in an appropriate container or absorb with a paper towel for proper disposal. Do not flush to sewer! Wash area with soap and water.

HANDLING AND STORAGE

Store in a cool, dry, ventilated area away from flame, sources of ignition and heat. Keep containers tightly closed and upright. Protect from physical damage. Keep out of direct sunlight and separate from incompatible materials. Storage and use areas should be non-smoking.

PERSONAL PROTECTION

Acid Fast Stain Set:**AIRBORNE EXPOSURE LIMITS, METHANOL:**

OSHA; Permissible Exposure Limit (PEL): 200 ppm (TWA).

ACGIH; Threshold Limit Value (TLV): 200 ppm (TWA).
200 ppm (STEL) skin.

AIRBORNE EXPOSURE LIMITS, ETHANOL:

OSHA; Permissible Exposure Limit (PEL): 1000 ppm (TWA).

ACGIH; Threshold Limit Value (TLV): 1000 ppm (TWA).

AIRBORNE EXPOSURE LIMITS, PHENOL:

OSHA; Permissible Exposure Limit (PEL): 5 ppm (TWA) skin.

ACGIH; Threshold Limit Value (TLV): 5 ppm (TWA) skin.

VENTILATION SYSTEM:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

PERSONAL RESPIRATORS (NIOSH) APPROVED:

If the exposure limit is exceeded, a full face piece respirator, air lined hood or full-face piece self-contained breathing apparatus. This substance has poor warning properties.

SKIN PROTECTION:

Wear protective clothing, gloves, lab coat or apron, as appropriate, to prevent skin contact.

EYE PROTECTION:

Use chemical safety glasses or goggles. Maintain eye wash fountain in work area.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Characteristic.
ODOR:	Characteristic.
SOLUBILITY:	No information available.
SPECIFIC GRAVITY:	No information available.
pH:	No information available.
% VOLATILES by VOLUME:	No information available.
BOILING POINT:	No information available.
MELTING POINT:	No information available.
VAPOR DENSITY (Air =1):	No information available.
VAPOR PRESSURE (mm Hg):	No information available.
EVAPORATION RATE (BuAc=1):	No information available.

STABILITY AND REACTIVITY

STABILITY:

Stable under ordinary conditions of use and storage.

HAZARDOUS DECOMPOSITION PRODUCTS:

No information available.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

Strong oxidizing agents and bases. Avoid heat, flame and other sources of ignition.

CONDITIONS to AVOID:

Heat, flames, ignition sources and incompatibles.

TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA:

Methanol: Oral rat LD50: 5628 mg/kg; Inhalation rat LC50: 64000 ppm/4H; Skin rabbit LD50: 15800 mg/kg.

Irritation data: Standard Draize Test, Skin rabbit: 20 mg/24hr., moderate; Eye rabbit: 100 mg/24hr., moderate.

Investigated as a mutagen, reproductive effector.

Ethanol: Oral rat LD50: 7060 mg/kg; Inhalation rat LC50: 20000 ppm/10H; Irritation data: Standard Draize Test, Eye rabbit: 500 mg/24hr., moderate. Investigated as a mutagen, reproductive effector.

Phenol: Oral rat LD50: 317 mg/kg; Inhalation rat LC50: 316 mg/m³; Skin rabbit LD50: 630 mg/kg. Irritation data: Standard Draize Test, Skin rabbit: 500 mg/24hr., severe; Eye rabbit: 5 mg/^{30s} rinse, mild. Investigated as a tumorigen, mutagen, reproductive effector.

ECOLOGICAL INFORMATION

When released into the soil, this material may leach into ground water.

ENVIRONMENTAL TOXICITY:

This material is expected to be toxic to aquatic life.

DISPOSAL INFORMATION

Dispose of container and unused contents in accordance with federal, state and local requirements. State and local disposal regulation may differ from federal disposal regulations.

OTHER INFORMATION

Acid Fast Stain Set Solution 2, Methanol:

TRANSPORT (Land, DOT):

Methanol, 3, UN1230, II

Acid Fast Stain Set Solutions 3, Ethanol 50%:

TRANSPORT (Land, DOT):

Alcohols, n.o.s. (denatured ethanol), 3, 1987, II

Acid Fast Stain Set Solutions 5, Leoffler's Methylene Blue:

TRANSPORT (Land, DOT):

Alcohols, n.o.s. (denatured ethanol), 3, 1987, III

Acid Fast Stain Set Solutions 1, Kinyoun Carbol Fuchsin & 4, Sulfuric Acid 1%:

TRANSPORT (Land, DOT):

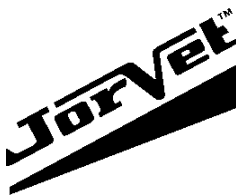
Not Regulated

PRODUCT USE:

Laboratory Reagent.

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**SDS**

Safety Data Sheet

1. IDENTIFICATION

Product Identifier: 1% Sulfuric Acid

Product Code(s): J0326ASD3

Synonyms: Hydrogen Sulfate; Oil of Vitriol; Babcock Acid

Recommended Use: For invitro veterinary use only.

Uses Advised Against: Not for use on humans.

Supplier: Jorgensen Laboratories
1450 Van Buren Avenue, Loveland, CO 80538
Phone: (970) 669-2500 or (800) 525-5614 Fax: (970) 663-5042

Emergency Phone Number: U.S. and Canada: (800) 535-5053 International: (352) 323-3500 (INFOTRAC)

2. HAZARDS IDENTIFICATION

Hazard Classifications: Skin Corrosion/Irritation: Category 2
Eye Damage/Irritation: Category 2A

Signal Word: WARNING

Hazard Statements: Causes skin irritation.
Causes serious eye irritation.

Pictograms:



Precautionary Statements:

Prevention: Wash thoroughly after handling.
Wear protective gloves, protective clothing, eye protection, and face protection.

Response: If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention.
Take off contaminated clothing and wash it before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage: Not applicable.

Disposal: Not applicable.

Hazards Not Otherwise Classified: This product may be hazardous to the environment. Avoid release to groundwater or aquatic environments.
Inhalation of inorganic mists containing sulfuric acid may cause cancer.

Toxicity Statement: Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	Common Name / Synonyms	CAS#	Chemical Formula	% by Weight
Sulfuric Acid	Hydrogen Sulfate, Oil of Vitriol	7664-93-9	H ₂ SO ₄	1.82
Water	Water	7732-18-5	H ₂ O	98.2

Trade Secret Statement: Not applicable.

4. FIRST AID MEASURES

First Aid Procedures:

Inhalation: 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. Call a physician if symptoms occur.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Call a physician if symptoms occur.

Skin Contact: Wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if symptoms occur.

Eye Contact: Check for and remove contact lenses, if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician if symptoms occur.

General Advice: Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that those providing first aid and medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Symptoms and Effects: Severe skin and eye irritation or burns, irritation of respiratory system, burning sensation of the respiratory tract, coughing, hoarseness, choking sensation, dyspnea (shortness of breath and difficulty breathing), shallow respiration, salivation, burning of mouth, throat, and stomach, thirst, difficulty swallowing, abdominal pain, nausea, vomiting, diarrhea, weak and rapid pulse or rapid heart rate (tachycardia), shock.

**Immediate Medical Care/
Special Treatment:** Call a physician if symptoms occur. Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable Extinguishing Media: Avoid use of water.

Hazardous Combustion Products: Hydrogen, sulfur oxides.

Specific Hazards: Contact with metals may produce hydrogen gas. Excessive thermal conditions may cause decomposition, yielding sulfur oxides. Contact with water may cause violent exothermic reaction.

Special Protective Equipment/Precautions for Firefighters: As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Ventilate area of leak or spill. Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Keep upwind. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

Emergency Procedures: In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

Methods for Containment: Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements, or confined areas. Dike the spilled material, where this is possible. Product should not be released to the environment. Contain and recover liquid when possible.

Methods for Cleanup: Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with water and neutralized with alkaline material such as soda ash or lime. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling: Wear personal protective equipment (see Section 8). Provide sufficient air exchange and/or exhaust in work rooms. Avoid contact with skin, eyes, and clothing. Do not breathe vapors or spray mist. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues (vapors, liquids). Observe all warnings and precautions listed for this product. As with all acids, never add water directly to this product. Instead, add acids to water to prevent violent eruption of the solution.

Storage: Store in a cool, dry, ventilated area. Store in a segregated and approved area away from heat and incompatible materials (see Section 10). Store in original container. Do not store in metallic containers. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:	Sulfuric Acid:	OSHA (PEL):	1 mg/m ³
		ACGIH (TLV):	0.2 mg/m ³

Water: No information found.

Engineering Controls: Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Measures:

Eye/Face Protection: Wear safety glasses with side shields or goggles and a face shield. Maintain approved eye wash station and accessible rinse facilities in work area.

Skin Protection: Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection: An air-purifying, NIOSH-approved respirator with appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a full-face, positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

Specific Requirements for Personal Protective Equipment: Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless, transparent liquid.

Odor: Very slight.

Odor Threshold: > 1 mg/m³

Formula Weight: 98.08 (as H₂SO₄)

pH: 0.3 (1 N solution)

Melting/Freezing Point: ≈ 0 °C

Boiling Point/Range: ≈ 100 °C

Decomposition Temperature: 340 °C

Flash Point: Not applicable.

Auto-ignition Temperature: Not applicable.

Flammability: Not flammable.

Flammability/Explosive Limits: Not applicable.

Solubility: Miscible with water.

Vapor Pressure: No information found.

Vapor Density (Relative): 3.4 (Air = 1)

Specific Gravity: 1.01 (Water = 1)

Evaporation Rate: No information found.

Viscosity: ≤ 23 mPa s at 20 °C

Partition Coefficient (n-octanol/water): No information found.

10. STABILITY AND REACTIVITY

Reactivity Data:	Corrosive. See Section 11.
Chemical Stability:	Stable under normal conditions. Sensitive to moisture.
Conditions to Avoid:	Excessive heat, moisture, incompatible materials.
Incompatible Materials:	Strong bases, strong acids, organic compounds, combustible materials, metals.
Hazardous Decomposition Products:	Hydrogen, sulfur oxides.
Possibility of Hazardous Reactions:	May react vigorously, violently, or explosively with the incompatible materials listed above. Excess thermal conditions may yield hazardous sulfur oxides. Contact with metals may produce hazardous concentrations of hydrogen gas. Contact with strong bases may cause violent exothermic reaction.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure:	Inhalation, ingestion, skin contact, eye contact.		
Acute Effects:	May be harmful if swallowed, inhaled, or absorbed through the skin. May cause irritation of the eyes, skin, respiratory tract, and gastrointestinal tract. May enter lungs if swallowed or vomited. Liquid and vapors are corrosive. May cause tissue damage.		
Chronic Effects:	Prolonged or repeated exposure may affect liver function, respiratory function, kidney function, and behavioral/central nervous system function. Prolonged or repeated exposure may cause tooth decay, dermatitis, conjunctivitis, reproductive effects, mutagenic effects, and cancer.		
Toxicological Data:	Sulfuric Acid:	LD50 Oral, Rat:	2140 mg/kg
		LC50 Inhalation, Rat:	0.510 mg/L 2 h
		Corrosive to skin and eyes based on animal data.	
	Water:	No information found.	
Symptoms of Exposure:	Irritation, burning, ulceration, coughing, sneezing, choking sensation, hoarseness, dyspnea, bronchitis, gastric infection, nausea, vomiting, diarrhea, thirst, difficulty swallowing, salivation, chills, fever, shock, weak and rapid pulse.		
Carcinogenic Effects:	This product may cause cancer.		
ACGIH:	Sulfuric Acid:	A2 – Suspected human carcinogen	
IARC:	Sulfuric Acid:	1 – Carcinogenic to humans	

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:	Sulfuric Acid:	LC50, Western Mosquitofish (<i>Gambusia affinis</i>):	42 mg/L 96 h
		EC50, Water Flea (<i>Daphnia magna</i>):	29 mg/L 24 h
	Water:	No information found.	

Persistence and Degradability: Expected to be readily biodegradable.

Environmental Effects: May be harmful to aquatic life. May leach into groundwater.

13. DISPOSAL INFORMATION

Disposal Instructions: Minimize exposure to product waste (see Section 8). All wastes must be handled in accordance with local, state, and federal regulations¹

Contaminated Packaging: Because emptied containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: D002: Waste Corrosive material (pH ≤ 2 or pH ≥ 12.5 or corrosive to steel)

14. TRANSPORT INFORMATION

DOT:

UN Number: UN3264

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid)

Hazard Class: 8

Packing Group: III

ERG Number: 154

Environmental Hazard Regulations: No information found.

Other Transport Precautions: No information found.

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302: Sulfuric Acid: Reportable Quantity: 1000 lb
Threshold Planning Quantity: 1000 lb

Sections 311/312:

Hazard Category	List (Yes/No)
Section 311 – Hazardous Chemical	Yes
Immediate Hazard	Yes
Delayed Hazard	Yes
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	Yes

Section 313:

Component:

Sulfuric Acid

De Minimis Concentration:

1.0 %

CERCLA Reportable Quantities: Sulfuric Acid: 1000 lb**International Inventories:**

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s)

16. OTHER INFORMATION**Disclaimer:**

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