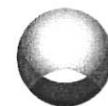


HAVILAND PRODUCTS COMPANY
SAFETY DATA SHEET



Haviland
PRODUCTS COMPANY

Section 1: Identification

Product Name: Acid, Sulfuric 50% Product Code:H000038

Haviland Products Company
421 Ann Street NW
Grand Rapids, MI 49504
(616) 361-6691

Emergency Phone
CHEMTREC (800) 424-9300
CHEMTREC International (703) 527-3887

Product Use: NA

Not recommended for: NA

Section 2: Hazard(s) Identification

GHS Ratings:

Corrosive to metals	1	Corrosive to metals
Inhalation Toxicity	Acute Tox. 2	Gases>100+<=500ppm, Vapors>0.5+<=2mg/l, Dusts&mists>0.05+<=0.5mg/l
Skin corrosive	1A	Destruction of dermal tissue: Exposure < 3 min. Observation < 1 hour, visible necrosis in at least one animal
Eye corrosive	1	Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity >= 3, Iritis > 1.5
Carcinogen	1B	Presumed Human Carcinogen, Based on demonstrated animal carcinogenicity
Organ toxin single exposure	1	Significant toxicity in humans- Reliable, good quality human case studies or epidemiological studies, Presumed significant toxicity in humans- Animal studies with significant and/or severe toxic effects relevant to humans at generally low exposure (guidan
Organ toxin repeated exposure	1	Significant toxicity in humans- Reliable, good quality human case studies or epidemiological studies Presumed significant toxicity in humans- Animal studies with significant and/or severe toxic effects relevant to humans at generally low exposure (guidanc
Aquatic toxicity	A3	Acute toxicity <= 10.0 but < 100 mg/l

GHS Hazards

H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H330	Fatal if inhaled
H350	May cause cancer
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life

GHS Precautions

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P234	Keep only in original container
P260	Do not breathe dust/fume/gas/mist/vapors/spray
P264	Wash face, hands, and any exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area

P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P284	Wear respiratory protection
P310	Immediately call a POISON CENTER or doctor/physician
P314	Get Medical advice/attention if you feel unwell
P320	Specific treatment is urgent (see first aid treatment on SDS)
P321	Specific treatment (see first aid treatment on SDS)
P363	Wash contaminated clothing before reuse
P390	Absorb spillage to prevent material damage
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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
P307+P311	IF exposed: Call a POISON CENTER or doctor/physician
P308+P313	IF exposed or concerned: Get medical advice/attention
P405	Store locked up
P406	Store in a corrosive resistant container with a resistant inner liner
P403+P233	Store in a well ventilated place. Keep container tightly closed
P501	Dispose of contents/container in accordance with local/regional/national/international regulations

Danger



Section 3: Composition/Information on Ingredients

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Sulfuric acid 7664-93-9 50 to 60%	1 mg/m ³ TWA	0.2 mg/m ³ TWA (thoracic fraction)	NIOSH: 1 mg/m ³ TWA

Section 4: First-aid Measures

Inhalation

Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention. To prevent aspiration, keep head below knees.

Eye Contact

Immediately flush eyes with water. Flush eyes with water for a minimum of 15 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly.

Skin Contact

Remove contaminated clothing. Wash skin with soap and water. Get medical attention. Wash clothing separately and clean shoes before reuse.

Ingestion

If swallowed, do NOT induce vomiting. Give victim a glass of water. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Section 5: Fire-fighting Measures

LEL:

UEL:

Extinguishing Media

Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water.

Specific Hazards Arising from the Chemical

Emits toxic fumes (sulfur oxides, hydrogen sulfide gas) under fire conditions. (See also Stability and Reactivity section).

Special Protective Equipment and Precautions for Firefighters

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

Section 6: Accidental Release Measures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASE OR SPILLED:

Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements

Prevent spillage from entering drains. Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

Section 7: Handling and Storage

HANDLING: Use only in a well ventilated area. Avoid breathing vapor, fumes or mist. Avoid contact with eyes, skin, and clothing. Ground and bond containers when transferring material. Always open containers slowly to allow any excess pressure to vent. Follow all MSDS/label precautions even after containers are emptied because they may retain product residues.

STORAGE: Keep away from heat, sparks, and flame. Store containers in a cool, well ventilated place. Keep container closed when not in use. Protect from direct sunlight.

Section 8: Exposure Control/Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Sulfuric acid 7664-93-9	1 mg/m ³ TWA	0.2 mg/m ³ TWA (thoracic fraction)	NIOSH: 1 mg/m ³ TWA

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant the use of a respirator.

SKIN PROTECTION: Wear impervious protective gloves. Wear protective gear as needed - apron, suit, boots.

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield.

OTHER PROTECTIVE EQUIPMENT: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

HYGENIC PRACTICES: Do not eat, drink, or smoke in areas where this material is used. Avoid breathing vapors. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Wash hands before eating.

Section 9: Physical and Chemical Properties

Appearance: Colorless to Slightly Black Liquid	Odor: Odorless
Vapor Pressure: Negligible	Odor threshold: Unknown
Vapor Density: Unknown	pH: Unknown
Density: Unknown	Melting point: Unknown
Freezing point: -57.6°F (-49.8°C)	Solubility: Completely
Boiling range: 237.5°F (114.2°C)	Flash point: Unknown
Evaporation rate: Unknown	Flammability: Unknown
Explosive Limits: Unknown	Specific Gravity: 1.4
Autoignition temperature: Unknown	Decomposition temperature: Unknown
Viscosity: Unknown	Grams VOC less water: Unknown

Section 10: Stability and Reactivity

Chemical Stability:

STABLE

Incompatibile Materials

Bases, halides, organic material, carbides, chlorates, fulminates, nitrates, picrates, cyanides, cyclopentadiene, cyclopantanone oxime, nitroaryl amines, hexolithium disilicide, phosphorus (III) oxide, powdered metals.

Conditions to Avoid

Moisture

Hazardous Decomposition Products

Sulfur oxides, hydrogen sulfide gas.

Hazardous Polymerization

Hazardous polymerization will not occur.

Section 11: Toxicology Information

Mixture Toxicity

Oral Toxicity LD50: 4,172mg/kg

Inhalation Toxicity LC50: 1mg/L

Component Toxicity

Routes of Entry:

Inhalation

Ingestion

Skin contact

Eye contact

Eyes Skin Respiratory System

Effects of Overexposure

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
7664-93-9	Sulfuric acid	50 to 60%	Sulfuric acid: IARC: Human carcinogen IARC: Human carcinogen OSHA: listed

Section 12: Ecological Information

Component Ecotoxicity

Sulfuric acid 96 Hr LC50 Brachydanio rerio: >500 mg/L [static]

Section 13: Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

Section 14: Transportation Informations

Refer to Bill of Lading or container label for DOT or other transportation hazard classification, if any .

Section 15: Regulatory Information

CERCLA/SARA Hazardous Substances

7664-93-9 Sulfuric acid

DEA List I and II Chemicals

7664-93-9 Sulfuric acid

SARA 313

7664-93-9 Sulfuric acid

TSCA 8(b) Inventory

7664-93-9 Sulfuric acid

<u>Country</u>	<u>Regulation</u>	<u>All Components Listed</u>
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Section 16: Other Information

Date Prepared: 5/15/2015

Reviewer Revision

Disclaimer

The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper

safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.