SAFETY DATA SHEET

sulfuric acid, conc=93-99.5%



Section 1. Identification

GHS product identifier : sulfuric acid, conc=93-99.5%

Product code : Not available.

Other means of : Sulfuric acid identification

Product type : Liquid.

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

Product use : Production of Sulfuric acid. Intermediate in manufacture of inorganic and organic

chemicals incl. fertilizers. Processing aid Catalyst. pH regulating agent Dehydrating agent. Extractions and processing of minerals, ores. Process of surface treatments, purification and etching. Electrolytic processes. Gas purification, scrubbing, flue gas scrubbing. Production, maintenance and recycling of sulphuric acid contained batteries. Laboratory chemicals Industrial cleaners. Mixing, preparation and repackaging of sulphuric acid.

Area of application : Industrial applications.

Supplier's details : Nyrstar Clarksville, Inc.

Zinc Plant Rd P.O. Box 1104

Clarksville, TN 37041-1104

Emergency telephone number (with hours of operation) : Technical Services (931) 552-4200 (24/7)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Classification of the : H330 ACUTE TOXICITY (inhalation) - Category 2 substance or mixture H314 SKIN CORROSION - Category 1A

H314 SKIN CORROSION - Category 1A H318 SERIOUS EYE DAMAGE - Category 1 H350 CARCINOGENICITY - Category 1A

H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) -

Category 2

GHS label elements

Hazard pictograms







Signal word : Danger

Hazard statements : H314 - Causes severe skin burns and eye damage.

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

H373 - May cause damage to organs through prolonged or repeated exposure. (teeth)

Precautionary statements

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Section 2. Hazards identification

Prevention

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves: > 8 hours (breakthrough time):

Viton® (0.4 mm)1 - 4 hours (breakthrough time): butyl rubber (0.5 mm). Wear protective clothing. Wear eye or face protection.

P284 - In case of inadequate ventilation wear respiratory protection: Recommended: acid gas filter (Type E)..

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

P260 - Do not breathe vapor.

P264 - Wash thoroughly after handling.

Response

P308 + P313 - IF exposed or concerned: Get medical advice or attention.

P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or

doctor. Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all

contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or

doctor.

P363 - Wash contaminated clothing before reuse.

P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage

: P405 - Store locked up.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label

elements

: Keep container tightly closed. Do not breathe vapor or spray. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

Hazards not otherwise

classified

: Causes severe respiratory tract burns. Causes severe digestive tract burns.

Section 3. Composition/information on ingredients

Substance/mixture Other means of

: Substance

identification

: Sulfuric acid

CAS number/other identifiers

CAS number : Not available.

Ingredient name	Other names	%	CAS number
sulphuric acid	-	≥93 - ≤99.5	7664-93-9

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Inhalation

Skin contact

Ingestion

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Get medica

- : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
 - : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
 - : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation: Fatal if inhaled. Severely corrosive to the respiratory system.

Skin contact : Causes severe burns.

Ingestion: Severely corrosive to the digestive tract. Causes severe burns. May cause burns to

mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

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Section 4. First aid measures

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

Protection of first-aiders

- : No specific treatment.
- : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

: Do not use water jet.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

 Decomposition products may include the following materials: sulfur oxides

May react with water and vapor, releasing toxic and corrosive gases.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters

- : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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Section 6. Accidental release measures

Large spill

: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
sulphuric acid	NIOSH REL (United States, 10/2020). TWA: 1 mg/m³ 10 hours. ACGIH TLV (United States, 1/2022). TWA: 0.2 mg/m³ 8 hours. Form: Thoracic fraction OSHA PEL (United States, 5/2018). TWA: 1 mg/m³ 8 hours.

Biological exposure indices

None known.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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Section 8. Exposure controls/personal protection

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

> 8 hours (breakthrough time): Viton® (0.4 mm) 1 - 4 hours (breakthrough time): butyl rubber (0.5 mm)

Chloroprene gloves, natural rubber (latex), nitrile rubber, and leather gloves.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: acid gas filter (Type E).

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Colorless to brown.

Odor : Odorless.
Odor threshold : Not available.
pH : Not available.

Melting point/freezing point : 10.4°C - 10.9°C; 100%

-1.11°C - 3.0°C ; 98% -13.89°C - -10°C ; 96%

7.56°C; 83%

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Section 9. Physical and chemical properties

Boiling point, initial boiling

point, and boiling range

: 290°C; 100%

310°C - 335°C; 98%

330°C; 96%

Flash point : Not available.
Evaporation rate : Not available.
Flammability : Not available.
Lower and upper explosion : Not available.

Lower and upper explosio limit/flammability limit

Vapor pressure : 0.006 kPa (0.045 mm Hg)

Relative vapor density : 3.4 [Air = 1]

Relative density : 1.8305 ; 20°C ; 100%

1.8361; 20°C; 98% 1.8355; 20°C; 96% 1.8144; 20°C; 90%

Density : 1.83 g/cm³ [20°C (68°F)]

Solubility(ies) : Media Result

water Soluble

Miscible with water : Yes.

Partition coefficient: n-

octanol/water

: Not applicable.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

SADT : Not available.

Viscosity : Dynamic: 22.5 mPa·s (22.5 cP)

Flow time (ISO 2431) : Not available.

Particle characteristics

Median particle size : Not applicable.

Other information

Physical/chemical : No additional information.

properties comments

Section 10. Stability and reactivity

Reactivity: May react vigorously with acids.

Chemical stability: Moisture-sensitive material.

Possibility of hazardous

reactions

: May react with water and vapor, releasing toxic and corrosive gases. Reaction with organic materials, combustible materials, reducuers, and some bases results in risk of

spontaneous ignition and fire/explosion.

Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid : Keep away from heat and flame.

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Section 10. Stability and reactivity

Incompatible materials

: Reactive or incompatible with the following materials: oxidizing materials, reducing materials, combustible materials, organic materials, metals, alkalis and moisture. Alcohols, Cellulose, amines.

Hazardous decomposition products

: Can react with certain metals, such as aluminum, to produce flammable hydrogen gas. Decomposes and releases toxic gases on heating. (sulfur oxides)

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
sulphuric acid	LC50 Inhalation Dusts and mists	Rat	0.255 mg/l	4 hours
	LD50 Oral	Rat	2140 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
sulphuric acid	Eyes - Severe irritant Eyes - Severe irritant	Rabbit Rabbit		250 ug 0.5 minutes 5	-
				mg	

Sensitization

Not available.

Mutagenicity

Conclusion/Summary

: Not available.

Carcinogenicity

Conclusion/Summary

: Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
sulphuric acid	-	1	Known to be a human carcinogen.

Reproductive toxicity

Conclusion/Summary

: Not available.

Teratogenicity

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
sulphuric acid	Category 2	-	teeth

Aspiration hazard

Not available.

Information on the likely routes of exposure

: Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

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Section 11. Toxicological information

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Fatal if inhaled. Severely corrosive to the respiratory system.

Skin contact : Causes severe burns.

Ingestion: Severely corrosive to the digestive tract. Causes severe burns. May cause burns to

mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion: Adverse symptoms may include the following:

stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity: May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	(- 1 /	Inhalation (dusts and mists) (mg/ I)
sulfuric acid, conc=93-99.5% sulphuric acid	2150.8	N/A	N/A	N/A	0.26
	2140	N/A	N/A	N/A	0.255

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Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
sulphuric acid	Acute EC50 >100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 42500 μg/l Marine water	Crustaceans - Pandalus montagui - Adult	48 hours
	Acute LC50 36 ul/L Marine water	Fish - Agonus cataphractus	96 hours

Conclusion/Summary

: Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects : Acidic. Pollutant.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1830	UN1830	UN1830
UN proper shipping name	Sulfuric acid	SULPHURIC ACID	Sulphuric acid
Transport hazard class(es)	8	8	8
Packing group	II	II	II

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Section 14. Transport information

Environmental	Yes.	No.	No.
Liivii Oliiliciitai	103.	110.	140.
hazards			
nazaras			

Additional information

DOT Classification

IMDG

: This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the

packagings meet the general provisions of §§ 173.24 and 173.24a.

Reportable quantity 1005 lbs / 456.28 kg [65.867 gal / 249.33 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

Limited quantity Yes.

Packaging instruction Exceptions: 154. Non-bulk: 202. Bulk: 242. **Quantity limitation** Passenger aircraft/rail: 1 L. Cargo aircraft: 30 L.

Special provisions A3, A7, B3, B83, B84, IB2, N34, T8, TP2Emergency schedules F-A, S-B

IATA : The environmentally hazardous substance mark may appear if required by other

transportation regulations.

Quantity limitation Passenger and Cargo Aircraft: 1 L. Packaging instructions: 851. Cargo Aircraft Only: 30 L. Packaging instructions: 855. Limited Quantities - Passenger

Aircraft: 0.5 L. Packaging instructions: Y840.

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in the

event of an accident or spillage.

Transport in bulk according

: Not available.

to IMO instruments

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are active or exempted.

Clean Water Act (CWA) 311: sulphuric acid

Clean Air Act Section 112

(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602

Class I Substances

: Not listed

Clean Air Act Section 602

Class II Substances

: Not listed

DEA List I Chemicals

(Precursor Chemicals)

: Not listed

DEA List II Chemicals

: Listed

(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

			SARA 302 TPQ		SARA 304 RQ	
Name	%	EHS	(lbs)	(gallons)	(lbs)	(gallons)
sulphuric acid	≥93 - ≤99.5	Yes.	1000	66.3	1000	66.3

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Section 15. Regulatory information

SARA 304 RQ : 1005 lbs / 456.3 kg [65.9 gal / 249.3 L]

SARA 311/312

Classification : ACUTE TOXICITY (inhalation) - Category 2

SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 CARCINOGENICITY - Category 1A

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

HNOC - Corrosive to digestive tract [severe] HNOC - Corrosive to respiratory tract [severe]

Composition/information on ingredients

Name	%	Classification
sulphuric acid	≥93 - ≤99.5	ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 HNOC - Corrosive to digestive tract [severe] HNOC - Corrosive to respiratory tract [severe]

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	sulphuric acid	7664-93-9	≥93 - ≤99.5
Supplier notification	sulphuric acid	7664-93-9	≥93 - ≤99.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts: The following components are listed: SULFURIC ACIDNew York: The following components are listed: Sulfuric acidNew Jersey: The following components are listed: SULFURIC ACIDPennsylvania: The following components are listed: SULFURIC ACID

California Prop. 65

WARNING: This product can expose you to Strong inorganic acid mists containing sulfuric acid, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name		Maximum acceptable dosage level
Strong inorganic acid mists containing sulfuric acid	-	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

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Section 15. Regulatory information

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (inhalation) - Category 2	Calculation method
SKIN CORROSION - Category 1A	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

History

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Version

: 1

Prepared by

: Sphera Solutions

Key to abbreviations

: ATE = Acute Toxicity Estimate

AMP = Acceptable maximum peak above the acceptable ceiling concentration for an

8-hr shift

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as

modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available
UN = United Nations

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sulfuric acid, conc=93-99.5%

Section 16. Other information

References

: HCS (U.S.A.) - Hazard Communication Standard International transport regulations

▼ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its 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 materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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