



Issuing Date 15-Dec-2009

Revision Date 04-May-2011

Revision Number 2

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Name Sulfuric Acid
Product Code(s) 0499
Recommended Use For Further Manufacturing Use Only
Not for Human or Animal Drug Use
Synonyms ACIDE SULFURIQUE (FRENCH) * ACIDO SOLFORICO (ITALIAN) * BATTERY ACID * BOV * DIHYDROGEN SULFATE * DIPPING ACID * ELECTROLYTE ACID * MATTLING ACID * OIL OF VITRIOL * SCHWEFELSAEURELOESUNGEN (GERMAN) * SULFURIC ACID (ACGIH:DOT:OSHA) * SULFURIC ACID, SPENT (UN1832) (DOT) * SULPHURIC ACID * UN1830 (DOT) * UN1832 (DOT) * VITRIOL BROWN OIL * ZWAVELZUUROPLOSSINGEN (DUTCH) *

Company
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Company Phone Number 1-800-448-4442
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2. HAZARDS IDENTIFICATION

GHS - Classification

Classification Skin Corrosion 1A Oxidizing Liquid 1 Acute Toxicity Oral 4 Carcinogen 1B

Signal Word Danger



Hazard Statements H314 - Causes severe skin burns and eye damage H270 - May cause or intensify fire; oxidizer H302 - Harmful if swallowed H351 - Suspected of causing cancer

Precautionary Statements P220- Keep/Store away from clothing/ other combustible materials P310 - Immediately call a POISON CENTRE or doctor/physician P280 - Wear protective gloves/protective clothing/eye protection/face protection P302+ P352 - IF ON SKIN: Wash with plenty of soap and water 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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
Sulfuric acid	EEC No. 231-639-5	Not available	7664-93-9	95-100	C;R35

4. FIRST AID MEASURES

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes

Inhalation Move to fresh air. If breathing becomes difficult, give oxygen

Ingestion Clean mouth with water and afterwards drink plenty of water

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties Not flammable

Flash Point Not determined

Suitable Extinguishing Media Dry chemical, CO2, appropriate foam.
Contains a chemical that is an oxidizer

Unsuitable Extinguishing Media Water.

Hazardous Combustion Products Sulfur oxides

Explosion Data

Sensitivity to Mechanical Impact	Not sensitive
Sensitivity to Static Discharge	Not sensitive

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

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation
Methods for Containment	Prevent further leakage or spillage if safe to do so
Methods for Cleaning Up	Cover with dry lime or soda ash. Pick up and transfer to properly labeled containers. Use non-sparking tools and equipment. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice. Never add water to this material, always add material to water.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place
Incompatible Products	Water. Bases. Halides. Organic materials. Finely powdered metals. Carbides. Chlorates. Fulminates. Nitro compounds. Picrates. Cyanides. Zinc iodide. Permanganates. Hydrogen Peroxide. Azides. Perchlorates. Nitromethane. Phosphorus . Nitrites.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric acid 7664-93-9	TWA: 0.2 mg/m ³	TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³	IDLH: 15 mg/m ³ TWA: 1 mg/m ³

Engineering Measures	Showers Eyewash stations Ventilation systems
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles.
Skin and Body Protection	Wear protective gloves/clothing
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear
Odor	No information available
Odor Threshold	No information available
Decomposition Temperature °C	No information available
Freezing Point	No information available
Initial Boiling Point	No information available
Physical State	Liquid Free from suspended or insoluble matter
pH	(as 5% solution) 0.3
Flash Point	Not determined
Autoignition Temperature	No data available
Boiling Point/Range	No data available
Melting Point/Range	No data available
Flammability Limits in Air	Upper No data available Lower No data available
Explosive Properties	No information available
Oxidizing Properties	No information available
Evaporation Rate	No data available
MMHG @ 37.8 C	No data available
Vapor Density	No data available
Specific Gravity	1.840
Density	<0.3
Solubility	No information available
Partition Coefficient (n-octanol/water)	No data available
Viscosity	No information available

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions
Incompatible Products	Water. Bases. Halides. Organic materials. Finely powdered metals. Carbides. Chlorates. Fulminates. Nitro compounds. Picrates. Cyanides. Zinc iodide. Permanganates. Hydrogen Peroxide. Azides. Perchlorates. Nitromethane. Phosphorus. Nitrites.
Conditions to Avoid	Strong dehydrating agents which may cause ignition of finely divided materials on contact. Do not allow contact with water.
Hazardous Decomposition Products	Sulfur oxides.
Hazardous Reactions	Reacts violently with: Cyclopentadiene, Cyclopentanone Oxime, Nitroaryl Amines, Hexalithium Disilicide, Phosphorous (III) Oxide.
Hazardous Polymerization	Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

<u>Acute Toxicity</u>	
Product Information	Toxic. Corrosive, causes burns.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
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Sulfuric acid	2140 mg/kg (Rat)		510 mg/m ³ (Rat) 2 h
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Chronic Toxicity

Chronic Toxicity Suspected carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sulfuric acid	A2	Group 1	Known	X

Target Organ Effects Teeth

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Sulfuric acid		LC50> 500 mg/L Brachydanio rerio 96 h		EC50 = 29 mg/L 24 h

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of material in accordance with all federal, state, and local regulations

Contaminated Packaging Dispose of in accordance with all federal, state and local regulations

14. TRANSPORT INFORMATION

IATA

UN-No 1830
Proper Shipping Name Sulfuric Acid
Hazard Class 8
Packing Group II

DOT

Proper Shipping Name Sulfuric Acid
Hazard Class 8
UN-No 1830
Packing Group II

15. REGULATORY INFORMATION

REACH Title VII Restrictions No information available.

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on the Label	Pollution Release and Transfer Registry (Class II):	Pollution Release and Transfer Registry (Class I):	Poison and Deleterious Substances Control Law:
Sulfuric acid	>=>=1 % weight	Not applicable	Not applicable	Not applicable	Not applicable	Deleterious

Component	ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA - Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) - Toxic Chemicals	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
Sulfuric acid 7664-93-9 (95-100)	Not applicable	Not applicable	97-1-405, 10 % or more in mixtures	Not applicable	>= 1.0 %

International Inventories

TSCA	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Sulfuric acid	7664-93-9	95-100	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sulfuric acid 7664-93-9 (95-100)	1000 lb			X

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990

CERCLA

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Sulfuric acid	1000 lb	1000 lb

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	CAS-No	California Prop. 65
Sulfuric acid	7664-93-9	Carcinogen

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Sulfuric acid	X	X	X	X	X

International Regulations

Mexico - Grade

Chemical Name	Carcinogen Status	Exposure Limits
Sulfuric acid	A2	Mexico: TWA= 1 mg/m ³

Canada

WHMIS Hazard Class

- E Corrosive material
- C Oxidizing materials
- D2A Very toxic materials



Chemical Name	NPRI
Sulfuric acid	X

16. OTHER INFORMATION

Issuing Date 15-Dec-2009

Revision Date 04-May-2011

Revision Note
No information available.

Recommended Restrictions No information available

Disclaimer

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

End of MSDS