

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

CAS Number: 7664-93-9
Product Name: Sulphuric Acid 40%
Revision Date: Jun 05, 2020 **Date Printed:** Jun 05, 2020
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: Thames River Chemical Corp.
Address: 5230 Harvester Road Burlington, ON, CA, L7L 4X4
Emergency Phone: CHEMTREC (800) 424-9300
Information Phone Number: 905-681-5353
Fax: 905-681-5377
Product/Recommended Uses: For laboratory or industrial use only.

SECTION 2) HAZARDS IDENTIFICATION

Classification

Acute toxicity Inhalation - Category 3
Chronic aquatic toxicity - Category 3
Corrosive to metals - Category 1
Serious Eye Damage - Category 1
Skin Corrosion - Category 1A
Specific Target Organ Toxicity - Single Exposure - Category 1

Pictograms



Signal Word

Danger

Hazard Statements - Health

Toxic if inhaled
Causes severe skin burns and eye damage
Causes damage to organs.

Hazard Statements - Physical

May be corrosive to metals

Hazard Statements - Environmental

Harmful to aquatic life with long lasting effects

Precautionary Statements - General

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.

Read label before use.

Precautionary Statements - Prevention

- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Keep only in original packaging.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash/Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.

Precautionary Statements - Response

- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Specific treatment (see first-aid on the SDS).
- Absorb spillage to prevent material damage.
- 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.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- Wash contaminated clothing before reuse.
- IF exposed or concerned: Call a POISON CENTER or doctor.

Precautionary Statements - Storage

- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.
- Store in a corrosive resistant container with a resistant inner liner.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

Physical Hazards Not Otherwise Classified

No data available.

Health Hazards Not Otherwise Classified

No data available.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
7664-93-9	SULFURIC ACID	40%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality or to reflect batch to batch variation.

SECTION 4) FIRST-AID MEASURES

Inhalation

- Get medical advice/attention if you feel unwell or are concerned. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
- Remove source of exposure or move person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Eye Contact

Immediately call a POISON CENTER/doctor. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 30 minutes or until medical aid is available. Take care not to rinse contaminated water into the unaffected eye or onto the face.

Skin Contact

Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash contaminated clothing before re-use. Immediately call a POISON CENTER/doctor. Rinse skin with lukewarm, gently flowing water/shower for a duration of 30 minutes or until medical aid is available.

Ingestion

Rinse mouth. Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

Most Important Symptoms and Effects, Both Acute and Delayed

No data available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Do NOT direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire.

Water spray or fog.

Foam.

Dry chemical powder.

BCF (where regulations permit). Use caution when applying carbon dioxide in confined spaces. Large Fire: Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards in Case of Fire

Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Containers may explode in fire. Fire will produce irritating and corrosive gases. Contact with metals may evolve flammable hydrogen gas. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive fumes.

Fire-fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Move undamaged containers from immediate hazard area if it can be done safely. Stop spill/release if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Large Fire: Dike fire-control water for later disposal; do not scatter the material

Special Protective Actions

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Stay uphill and/or upstream. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Ventilate closed spaces before entering. Evacuate and isolate hazard area and keep unauthorized personnel away.

Recommended Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA). Wear liquid tight chemical protective clothing in combination with positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

DO NOT get on skin, eyes or clothing. Avoid breathing vapor or mist.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up

Ventilate area after clean-up is complete. Absorb Liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use. Do not get in eyes, on skin or on clothing. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. This product is not intended for human or animal consumption. Use pneumatic and/or mechanical systems for bulk transfer of the substance. Use exhaust ventilation and/or dust collecting filters for bulk transfer and storage. Use approved respiratory protection when handling. Keep bulk of materials out of sewer drains. Eyewash stations and showers should be available in areas where this material is used and stored.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. Report ventilation failures immediately. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Store in original containers. Keep containers securely sealed. Keep containers securely sealed when not in use. Protect containers against banging or other physical damage when storing, transferring, or using them. Procedures must be conducted in a fume hood, glove box, or other suitable containment device. Segregate from other hazard classes and store in a cool, dry, well ventilated area, away from sources of ignition and incompatibilities. Provide secondary containment for toxic materials. Store, handle, and use corrosive materials in well-ventilated areas. Keep the smallest amount of material in work areas. Do not store on metal shelves. Store containers in plastic tubs or trays as secondary containment. Avoid rapid temperature changes in liquid storage areas. Store at temperatures above their respective freezing/melting point. Never store corrosives above eye level. Label cabinets with "TOXIC CHEMICALS" or similar warning.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear indirect-vent, impact and splash resistant goggles when working with liquids

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	CANsmg	CANspmm	CANtmg	CANtppm	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)
SULFURIC ACID	3		1				1	

Chemical Name	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis
SULFURIC ACID		1				0.2 (T)		Pulm func

Chemical Name	ACGIH Carcinogen	ACGIH Notations
SULFURIC ACID	A2	A2 (M)

(C) - Ceiling limit, (M) - Mist, (T) - Thoracic fraction, A2 - Suspected Human Carcinogen, func - Function, pulm - Pulmonary

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density

11.71 lb/gal

Specific Gravity 1.40

Appearance	CLEAR LIQUID.
Odor Description	NO DATA AVAILABLE.
Odor Threshold	NO DATA AVAILABLE.
pH	NO DATA AVAILABLE.
Melting/Freezing Point	3°C.
Low Boiling Point	100°C.
High Boiling Point	NO DATA AVAILABLE.
Flash Point	NO DATA AVAILABLE.
Vapor Pressure	1.33 HPA (1.00 MMHG) AT 145.8 C (294.4 F).
Vapor Density	NO DATA AVAILABLE.
Evaporation Rate	NO DATA AVAILABLE.
Upper Explosion Level	NO DATA AVAILABLE.
Lower Explosion Level	NO DATA AVAILABLE.
Water Solubility	Soluble in water.
Coefficient Water/Oil	NO DATA AVAILABLE.
Viscosity	NO DATA AVAILABLE.

SECTION 10) STABILITY AND REACTIVITY

Reactivity

Reacts violently with water.

Stability

Stable under normal storage and handling conditions.

Conditions to Avoid

Concentrated acid is a strong oxidizing agent. May cause ignition of combustible material on contact.

Hazardous Reactions/Polymerization

Hazardous polymerization will not occur.

Incompatible Materials

Bases, Halides, Organic materials, Carbides, Fulminates, Nitrates, Cyanides, Chlorates, Zinc salts, Cyclopentadiene, Phosphorous, Powdered metals, Nitromethane, Cyclopentanone, Oxime Nitroaryl Amines, Hexalithium Disilicide, Phosphorous (III) oxide, Azides, Permanganates, Alkali halides

SECTION 11) TOXICOLOGICAL INFORMATION

Hazardous Decomposition Products

Sulphur oxides

Likely Route of Exposure

Inhalation, ingestion, skin absorption

Toxic if inhaled

Aspiration Hazard

No data available.

Carcinogenicity

No data available.

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Respiratory/Skin Sensitization

7664-93-9 SULFURIC ACID

Repeated or prolonged contact with skin may cause dermatitis.

Serious Eye Damage/Irritation

Causes serious eye damage

7664-93-9 SULFURIC ACID

Contact can severely irritate and burn the eyes.

Skin Corrosion/Irritation

Causes severe skin burns and eye damage

Specific Target Organ Toxicity - Repeated Exposure

7664-93-9 SULFURIC ACID

Repeated exposure can cause permanent lung damage.

Specific Target Organ Toxicity - Single Exposure

Causes damage to organs.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

7664-93-9 SULFURIC ACID

The substance can be absorbed into the body by inhalation of its aerosol.

Acute Toxicity

7664-93-9 SULFURIC ACID

LC50 (rat): 510 mg/m³ (2 hour-exposure) (255 mg/m³ - equivalent 4-hour exposure) (1)

LC50 (mouse): 320 mg/m³ (2-hour exposure) (160 mg/m³ - equivalent 4-hour exposure) (1)

LD50 (oral, rat): 2140 mg/kg (2)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

No data available.

Harmful to aquatic life with long lasting effects

Mobility in Soil

No data available.

Bio-accumulative Potential

No data available.

Persistence and Degradability

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

SECTION 14) TRANSPORT INFORMATION

	Transport Canada Information	U.S. DOT Information
UN number:	UN2796	UN2796
Proper shipping name:		
Hazard class:	8	8
Packaging group:	II	II
Hazardous substance (RQ):		No Data Available
Marine Pollutant:	No Data Available	No Data Available
Note / Special Provision:	Note / Special Provision	No Data Available
Toxic-Inhalation Hazard:		No Data Available
Transport in bulk (according to Annex II of MARPOL 73/78):	No Data Available	

SECTION 15) REGULATORY INFORMATION

HPR COMPLIANCE..... THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE HPR AND THE SDS CONTAINS ALL THE INFORMATION REQUIRED BY THE HPR.

SECTION 16) OTHER INFORMATION

Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANTppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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