

SECTION 1: IDENTIFICATION

PRODUCT IDENTIFIER:	Sulfuric Acid 5N
OTHER MEANS OF IDENTIFICATION:	None
RECOMMENDED USE:	Laboratory chemical
RESTRICTIONS ON USE:	None
SUPPLIER IDENTIFIER:	Di-Corp Testing Equipment Unit 2, 4816-35B St. SE Calgary, Alberta T2B 3N1 403-268-7912
	A division of : Di-Corp 8750-53 Ave Edmonton, AB T6E 5G2 780-440-4923
EMERGENCY PHONE NUMBER:	780-468-4064 (24 hr)
EMERGENCY TRANSPORT NUMBER:	1-888-CANUTEC (226-8832), 613-996-6666 or *666 on a cellular phone

SECTION 2: HAZARD IDENTIFICATION

CLASSIFICATION:	Corrosive to metals – Category 1 Skin Corrosion/Irritation – Category 1A Serious Eye Damage / Eye Irritation – Category 1
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LABEL SYMBOLS:



SIGNAL WORD:

DANGER

CLASSIFICATION INFORMATION:

May be corrosive to metals.
Causes severe skin burns and eye damage.

Prevention

Keep only in original packaging.
Do not breathe fume/mist/vapours/spray.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response

PRECAUTIONARY STATEMENTS:

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 INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
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/doctor.
Absorb spillage to prevent material – damage.

Storage

Store locked up. Store in a corrosion resistant container.

Disposal

Dispose of contents/container in accordance with local, provincial or federal regulations.

OTHER HAZARDS:

None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Sulfuric acid	7664-93-9	10 - 15% (v/v)

SECTION 4: FIRST AID MEASURES

SKIN CONTACT:	Immediately flush with copious amounts of running water while removing contaminated clothing. Continue flushing until irritation subsides. If irritation persists, or burns develop, obtain medical attention.
EYE CONTACT:	Immediately flush with gently flowing warm water for 30 minutes holding eyelids open. Remove contact lens, if present. Neutral saline may be used as soon as it is available. Obtain medical attention when flushing period is complete and no further irritation is felt.
INGESTION:	Do not induce vomiting. If victim is conscious and alert, rinse mouth with water. Obtain immediate medical attention. Never give anything by mouth if patient is unconscious, rapidly losing consciousness or convulsing.
INHALATION:	Move to fresh air. Apply oxygen or artificial respiration if required. Obtain immediate medical attention.
MOST IMPORTANT SYMPTOMS / EFFECTS:	May cause burns by all exposure routes. Product is a corrosive material.
IMMEDIATE MEDICAL ATTENTION / SPECIAL TREATMENT:	Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:	Use media suitable for surrounding fire.
UNSUITABLE EXTINGUISHING MEDIA:	None known.
SPECIFIC FIRE HAZARDS:	May give off toxic sulfur oxide fumes in a fire.
HAZARDOUS COMBUSTION PRODUCTS:	Oxides of sulfur.
SPECIAL PROTECTIVE EQUIPMENT & PRECAUTIONS:	Full protective equipment and self-contained breathing apparatus required for fire-fighting personnel. Remove containers from fire area, or cool with water spray, if possible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Always use suggested or required safety equipment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP

Cover spill with soda ash or lime. Soak up liquid with non-combustible absorbent material and place in suitable approved containers for disposal. Wash spill site after material pick up is complete.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Practice reasonable caution and personal cleanliness. Avoid skin and eye contact. Avoid ingestion. Wash thoroughly after handling. Launder contaminated clothing before reuse.

CONDITIONS FOR SAFE STORAGE & INCOMPATIBILITIES

Store in cool, dry place away from incompatible materials. Keep containers tightly closed when not in use. Empty containers contain residual hazardous material, and must be handled and stored as if full.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:	Sulfuric acid: ACGIH TWA = 0.2 mg/m ³
ENGINEERING CONTROLS:	General mechanical sufficient for normal use. Use process enclosure, local exhaust ventilation or other engineering controls if vapours or mists are generated during use.
	PERSONAL PROTECTIVE MEASURES
RESPIRATORY PROTECTION:	None required for this solution. Use NIOSH approved respirator with acid gas/mist cartridges if vapours or mists are generated.
PROTECTIVE GLOVES:	Suggest rubber or latex gloves be worn.
EYE PROTECTION:	Suggest chemical splash goggles. Do not wear contact lenses when working with corrosives.
OTHER PROTECTIVE EQUIPMENT (SPECIFY):	Suggest the use of a chemical apron and/or chemical resistant clothing. Ensure eye-wash station and emergency shower are available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear colourless liquid
ODOUR:	Odourless
ODOUR THRESHOLD:	Not determined
pH:	<1.0
MELTING POINT / FREEZING POINT:	<-10°C
BOILING POINT / RANGE:	>100°C
FLASH POINT:	Not applicable
EVAPORATION RATE:	Not available
FLAMMABILITY:	Not applicable
FLAMMABILITY / EXPLOSIVE LIMITS:	Not applicable
VAPOUR PRESSURE:	Not available
VAPOUR DENSITY:	Not available
RELATIVE DENSITY:	1.1
SOLUBILITY:	Miscible in water
PARTITION COEFFICIENT:	Not available
AUTO-IGNITION TEMPERATURE:	Not available
DECOMPOSITION TEMPERATURE:	Not available
VISCOSITY:	Not available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	No information available
CHEMICAL STABILITY:	Stable under normal conditions
POSSIBILITY OF HAZARDOUS REACTIONS:	Polymerization will not occur
CONDITIONS TO AVOID:	Avoid incompatible materials. Avoid excess heat.
INCOMPATIBLE MATERIALS:	Metals. Powdered metals. Reducing agents. Bases. Organic materials. Water reactive materials.
HAZARDOUS DECOMPOSITION PRODUCTS:	Reacts with metals to produce hydrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT TOXICITY: Not available.

COMPONENT TOXICITY

COMPONENT	LD50 ORAL	LD50 DERMAL	LC50 INHALATION
Sulfuric Acid	2140 mg/kg (rat)	Not available	255 mg/m ³ /4hr (rat)

SKIN CONTACT:	Causes severe irritation. Prolonged contact may result in chemical burns. Prolonged or repeated contact may cause dermatitis.
EYE CONTACT:	Causes severe eye irritation. Without immediate first aid permanent eye damage can result.
INGESTION:	Causes severe irritation and possible permanent damage to the digestive tract. May cause systemic toxicity with acidosis. May cause perforation of the digestive tract.
INHALATION:	No vapours given off at normal handling temperatures. Mists or aerosols are harmful if inhaled. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Aspiration may lead to pulmonary edema. May cause systemic effects. Prolonged or repeated inhalation may cause kidney and lung damage.
CARCINOGENICITY:	The IARC classification of Group 1 for strong inorganic acid mists containing sulfuric acid is for inorganic acid mists only and does not apply to sulfuric acid or sulfuric acid solutions. The ACGIH A2 carcinogenicity designation that appears with the sulfuric acid TLV refers to specifically to sulfuric acid contained in strong inorganic acid mists.
TERATOGENICITY:	No information available.
REPRODUCTIVE TOXICITY:	No information available.
MUTAGENICITY:	No information available.
CHRONIC TOXICITY:	No information available.
TARGET ORGAN EFFECTS:	No information available.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	Sulfuric Acid: LC50 (fish) = 500 mg/L/96hr EC50 (invertebrate) = 29 mg/L/24 hr (water flea) EC50 (algae) = Not available
PERSISTENCE AND DEGRADABILITY:	Not applicable to inorganic materials.
BIOACCUMULATIVE POTENTIAL:	Not available.
MOBILITY IN SOIL:	Not available.
OTHER ADVERSE EFFECTS:	Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, provincial and local regulations. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal. Triple rinse empty containers and dispose in general trash.

SECTION 14: TRANSPORTATION INFORMATION

TDG:	Regulated*
DOT:	Regulated
IATA:	Regulated
IMDG:	Regulated
UN NUMBER:	UN2796
PROPER SHIPPING NAME:	Sulfuric acid, solution
CLASS:	8
PACKING GROUP:	III
IMDG HAZARDS:	Not available
BULK TRANSPORT:	Not applicable
SPECIAL PRECAUTIONS:	Not available

**NOTE: Lab reagent size product can be shipped as a LIMITED QUANTITY.*

SECTION 15: REGULATORY INFORMATION

DSL: All ingredients are listed on the DSL.
WHMIS CLASS: D1A; E
TSCA: All ingredients are listed or exempt from listing.

SECTION 16: OTHER INFORMATION

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