

# MATERIAL SAFETY DATA SHEET

Sulfuric Acid, N/10 Standardized Solution

## SECTION 1 . Product and Company Identification

Product Name and Synonym: Sulfuric Acid, N/10 Standardized Solution

Product Code: 230-01-5

Material Uses:

Manufacturer:

OFI Testing Equipment, Inc.

11302 Steeplecrest Drive

Houston, TX 77065 USA

Phone: (713) 880-9885

Fax: (713) 880-9886

Entry Date : 10/28/2009

Print Date: 7/30/2010

24 Hour Emergency Assistance : Chemtec 800-424-9300

Canutec 613-996-6666

|                     |        |                      |      |         |
|---------------------|--------|----------------------|------|---------|
| Health:             | 3      |                      |      |         |
| Flammability:       | 1      |                      |      |         |
| Reactivity:         | 0      |                      |      |         |
| Hazard Rating:      |        |                      |      |         |
| Least               | Slight | Moderate             | High | Extreme |
| 0                   | 1      | 2                    | 3    | 4       |
| NA = Not Applicable |        | NE = Not Established |      |         |

## SECTION 2 HAZARD IDENTIFICATION

May cause irritation and burns. May be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Emergency Overview:Poison! Danger! Corrosive. Liquid and mist cause severe burns to all body tissue. May be fatal if swallowed or contacted with skin. Harmful if inhaled. Affects teeth. Water reactive. Cancer hazard. Strong inorganic acid mists containing sulfuric acid can cause cancer. Risk of cancer depends on duration and level of exposure.

Inhalation:Corrosive! Effects Should be Less Severe than from Exposure to Higher Concentrations of

Sulfuric Acid. Symptoms may Include Irritation of the Nose and Throat, and Labored Breathing as Well as Lung Edema, Damage to the Mucous Membranes and Upper Respiratory Tract.

Ingestion:Corrosive! Should be Less Severe than from Exposure to Higher Concentrations of Sulfuric Acid.

Symptoms may Include Severe Burns of the Mouth, Throat, and Stomach. Circulatory Collapse with Clammy Skin, Weak and Rapid Pulse, Shallow Respirations, and Scanty Urine may Follow Ingestion or Skin Contact. Circulatory Shock is Often the Immediate cause of Death. May Cause

Sore Throat, Vomiting, and Diarrhea.

Skin:Corrosive! Effects Should be Less Severe than from Exposure to Higher Concentrations of

Sulfuric Acid. Symptoms my Include Redness, Pain, and Burns to the Skin. Circulatory Collapse

with Clammy Skin, Weak and Rapid Pulse, Shallow Respirations, and Scanty Urine may Follow Skin Contact or Ingestion.

Eye Contact:Corrosive! Symptoms may Include Blurred Vision, Redness, Pain and Burns to Eye Tissue.

Concentrated Solutions can Cause Blindness.

Chronic Exposure:Corrosive! Long-Term Exposure to Mist or Vapors may Cause Damage to Teeth. Chronic

Exposure to Mists Containing Sulfuric Acid is a Cancer Hazard.

Aggravated by Exposure:Persons with Pre-Existing skin Disorders or Eye Disease May be more Susceptable to the Effects of this Substance.

## SECTION 3 MIXTURE COMPONENTS

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| SARA 313                            | Component                          | CAS Number     | Percent Comp. | Dimension | Exposure Limits                                 |
|-------------------------------------|------------------------------------|----------------|---------------|-----------|---|
| <input type="checkbox"/>            | 1,2-Propanediol (Propylene Glycol) | CAS# 57-55-6   | ~35%          | V/V       |   |
| <input checked="" type="checkbox"/> | Sulfuric Acid                      | CAS# 7664-93-9 | <0.1%         | V/V       | OSHA TWA 1 mg/m <sup>3</sup> , ACGIH STEL 3 ppm |
| <input type="checkbox"/>            | Water, Deionized ASTM Type II      | CAS# 7732-18-5 | Balance       | V/V       | None Established                                |

**SECTION 4 FIRST AID MEASURES**

May cause irritation and burns. May be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

If swallowed give large quantities of water and get medical attention immediately.

**SECTION 5 FIRE FIGHTING MEASURES**

Fire Extinguisher Type: Carbon Dioxide, dry chemical powder, or appropriate foam

Fire / Explosion Hazards: contact with metals may form explosive hydrogen gas

Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Ventilate area of leak or spill. Wear appropriate PPE. Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law. Neutralize with alkaline material as soda ash or lime.

Ventilate area of Leak or Spill. Wear Appropriate Personal Protective Equipment as Specified in Section 8. Isolate Hazard Area. Keep Unnecessary and Unprotected Personnel from Entering.

Contain and Recover Liquid when Possible. Neutralize with Alkaline Material (Soda-Ash, Lime), then Absorb with an Inert Material (e.g., Vermiculite, Dry Sand, Earth), and place

in a Chemical Waste Container. Do Not Use Combustible Materials, such as Saw Dust. Do Not

Flush to Sewer! US Regulations (CERCLA) Require Reporting Spills and Releases to Soil,

Water and Air in Excess of Reportable Quantities.

**SECTION 7 HANDLING AND STORAGE**

Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Protect from freezing. Keep out of direct sunlight and away from heat water and incompatible materials.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Respiratory Protection: None required

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Ventilation

Local Exhaust   
Mechanical

Protective Gloves: Gloves to prevent skin exposure as rubber or vinyl

Eye Protection: Splash Goggles

Other Protective Equipment: Wear impervious protective clothing including boots, apron, gloves, lab coat or coveralls.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

|                      |                            |                             |                           |
|----------------------|----------------------------|-----------------------------|---------------------------|
| Melting Point:       | 3 deg C (100%)             | Percent Volatile by Volume: | > 95                      |
| Boiling Point:       | not available              | Evaporation Rate            | information not available |
| Vapor Pressure:      | not available              | Evaporation Standard        |                           |
| Vapor Density:       | not available              | Auto Ignition Temp          | Not available             |
| Solubility in Water: | Soluble                    | Lower Flamm. Limit in Air   | Not available             |
| Appearance /Odors:   | Clear white water/odorless | Upper Flamm. Limit in Air   | Not available             |
| Flash Point:         | Not flammable              |                             |                           |
| Specific Gravity:    | 1.0 - 1.02                 |                             |                           |

**SECTION 10 STABILITY AND REACTIVITY INFORMATION**

|                                   |                              |
|-----------------------------------|------------------------------|
| Stability:                        | Stable                       |
| Conditions to Avoid:              | High temperatures, Light     |
| Materials to Avoid:               | Halides, Ammonia, Phospahtes |
| Hazardous Decomposition Products: | oxides of carbon, nitrogen   |
| Hazardous polymerization:         | Will Not Occur               |
| Conditions to Avoid:              | none                         |

**SECTION 11 Toxicological Information**

Carcinogenic References: The International Agency for Research on Cancer (IARC) has Classified "Strong Inorganic Acid Mists Containing Sulfuric Acid" as a known Human Carcinogen. This Classification applies only to Mists Containing Sulfuric Acid and Not to Sulfuric Acid or Sulfuric Acid Solutions.

**SECTION 12 Ecological Information**

Environmental Fate: When Released into the Soil, this Material may Leach into Groundwater.

**SECTION 13 Disposal Considerations**

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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**SECTION 14 Transport Information**

DOT Classification: Sulfuric acid , 8, UN2796, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

**SECTION 15 Regulatory Information**

Chemical Inventory Status –

Part 1:Ingredient

Sulfuric Acid (7664-93-9)

Propylene Glycol (57-55-6)

TSCA Yes Yes

EC Yes Yes

Japan YES Yes

Australia Yes Yes

Chemical Inventory Status –

Part 2:Ingredient

Sulfuric Acid (7664-93-9)

Propylene Glycol (57-55-6)

Korea Yes Yes

DSL Yes Yes

NDSL No No

Phil. Yes Yes

Federal, State & International Regulations –

Part 1: Ingredient.

Sulfuric Acid (7664-93-9)

Propylene Glycol (57-55-6)

RQ 1000 No

TPQ 1000 No

List YES No

Chemical Catg No No.

Federal, State &  
International Regulations –

Part 2:Ingredient

Sulfuric Acid (7664-93-9)

Propylene Glycol (57-55-6)

CERCLA 1000 No

261.33 NO No

8(d) No No

Chemical Weapons Convention: No

TSCA 12 (b):No

CDTA:YES MIXTURE/LIQUID

SARA 311/312: Acute: YES

Chronic: YES

Fire: No

Pressure: No

Reactivity: YES

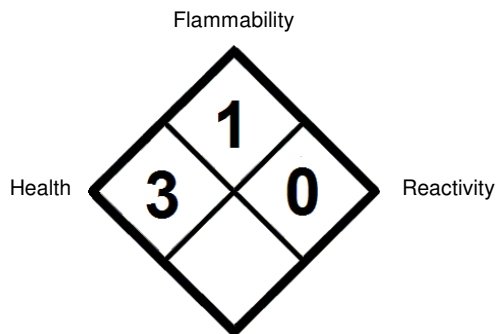
Australian Hazchem Code: 2P

Poison Schedule: None allocated

**SECTION 16 Additional Information**

Poison! Danger! Corrosive! Liquid and mist may cause severe burns to all body tissue. May be fatal if swallowed or contacted with skin. Harmful if inhaled Conditions aggravated/target organs: Persons with pre-existing skin, eye or respiratory disorders are more susceptible. On ingestion, symptoms may include burns to mouth, throat, and stomach. Circulatory collapse with clammy skin, weak and rapid pulse, scanty urine may follow ingestion or skin contact. Circulatory shock is often the immediate cause of death.

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NFPA

Revisions

|           |     |   |
|-----------|-----|---|
| 7/30/2010 | 0.1 | updated msds to 16 section from 10 section<br>msds. STN |
|           | 0   |   |

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