Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sulfuric Acid Standard Solution 0.020N  
Catalog Number: 20356

Hach Company  
P.O.Box 389  
Loveland, CO USA 80539  
(970) 669-3050

Emergency Telephone Numbers:  
(Medical and Transportation)  
(303) 623-5716  24 Hour Service  
(515)232-2533  8am - 4pm CST

MSDS Number: M00347  
Chemical Name: Not applicable.  
CAS No.: Not applicable.  
Chemical Formula: Not applicable.  
Chemical Family: Not applicable  
Hazard: Practically non-toxic. May cause eye irritation.

Date of MSDS Preparation:  
Day: 29  
Month: March  
Year: 2001

2. COMPOSITION / INFORMATION ON INGREDIENTS

Demineralized Water  
CAS No.: 7732-18-5  
TSCA CAS Number: 7732-18-5  
Percent Range: > 99.0  
Percent Range Units: volume / volume  
LD50: None reported  
LC50: None reported  
TLV: Not established  
PEL: Not established  
Hazard: No effects anticipated.

Other components, each  
CAS No.: Not applicable  
TSCA CAS Number: Not applicable  
Percent Range: < 0.1  
Percent Range Units: volume / volume  
LD50: Not applicable  
LC50: Not applicable  
TLV: Not established  
PEL: Not established  
Hazard: Any ingredient(s) of this product listed as "Other component(s)" is not considered a health hazard to the user of this product.
3. HAZARDS IDENTIFICATION

Emergency Overview:
Appearance: Clear, colorless
Odor: None
MAY CAUSE EYE IRRITATION

HMIS:
Health: 1
Flammability: 0
Reactivity: 0
Protective Equipment: X - See protective equipment, Section 8.

NFPA:
Health: 1
Flammability: 0
Reactivity: 0
Symbol: Not applicable

Potential Health Effects:
Eye Contact: May cause irritation
Skin Contact: No effects are anticipated
Skin Absorption: No effects anticipated
Target Organs: Not applicable
Ingestion: Practically non-toxic No Effects Anticipated
Target Organs: Not applicable
Inhalation: No effects anticipated
Target Organs: Not applicable
Medical Conditions Aggravated: None reported
Chronic Effects: Chronic overexposure may cause eye irritation
Cancer / Reproductive Toxicity Information:
This product does NOT contain any OSHA listed carcinogens.

This product does NOT contain any IARC listed chemicals.

This product does NOT contain any NTP listed chemicals.

Additional Cancer / Reproductive Toxicity Information: None reported
Toxicologically Synergistic Products: None reported

4. FIRST AID

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.
Skin Contact (First Aid): Wash skin with plenty of water.
Ingestion (First Aid): Give large quantities of water. Call physician immediately.
Inhalation: None required.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn.
Flash Point: Not applicable.
Method: Not applicable
Flammability Limits:
Lower Explosion Limits: Not applicable.
Upper Explosion Limits: Not applicable.
Autoignition Temperature: Not applicable.
Hazardous Combustion Products: This material will not burn.
Fire/Explosion Hazards: None reported
Static Discharge: None reported
Mechanical Impact: None reported
Extinguishing Media: Use media appropriate to surrounding fire conditions
Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice: Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company’s emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance.
Containment Technique: Absorb spilled liquid with non-reactive sorbent material. Stop spilled material from being released to the environment.
Clean-up Technique: Cover spilled material with an alkali, such as soda ash or sodium bicarbonate. Scoop up slurry into a large beaker. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Dispose of material in an E.P.A. approved hazardous waste facility. Decontaminate the area of the spill with a soap solution.
Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.
Special Instructions (for accidental release): Mixture contains a component which is regulated as a water pollutant. Mixture contains a component which is regulated as hazardous waste.
D.O.T. Emergency Response Guide Number: Not applicable.

7. HANDLING / STORAGE

Handling: Avoid contact with eyes. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.
Storage: Keep container tightly closed when not in use.
Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Have an eyewash station nearby. Maintain general industrial hygiene practices when using this product.
Personal Protective Equipment:
   Eye Protection: safety glasses with top and side shields
   Skin Protection: disposable latex gloves
   Inhalation Protection: adequate ventilation
Precautionary Measures: Avoid contact with: eyes. Wash thoroughly after handling.
TLV: Not established.
PEL: Not established.

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, colorless
Physical State: Liquid
Molecular Weight: Not applicable.
Odor: None
pH: 2.0


### 10. STABILITY / REACTIVITY

**Chemical Stability:** Stable when stored under proper conditions.

**Conditions to Avoid:** Extreme temperatures

**Reactivity / Incompatibility:** Incompatible with caustics

**Hazardous Decomposition:** No hazardous decomposition products known.

**Hazardous Polymerization:** Will not occur.

### 11. TOXICOLOGICAL INFORMATION

**Product Toxicological Data:**

- **LD50:** None reported.
- **LC50:** None reported.
- **Dermal Toxicity Data:** None reported.
- **Skin and Eye Irritation Data:** None reported.
- **Mutation Data:** None reported.
- **Reproductive Effects Data:** None reported.

**Ingredient Toxicological Data:** Sulfuric Acid: Oral 

\[
LD_{50} = 2140 \text{ mg/kg; } LC_{50} = 347 \text{ ppm/l hr}
\]

### 12. ECOLOGICAL INFORMATION

**Product Ecological Information:** --

No ecological data available for this product.

**Ingredient Ecological Information:** Sulfuric Acid: The 48-Hour TLm in flounder is 100-300 ppm.

### 13. DISPOSAL CONSIDERATIONS

**EPA Waste ID Number:** D002

**Special Instructions (Disposal):** Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain. Flush system with plenty of water.

**Empty Containers:** Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.
NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

D.O.T.:  
D.O.T. Proper Shipping Name: Not Currently Regulated
--  
DOT Hazard Class: NA
DOT Subsidiary Risk: NA
DOT ID Number: NA
DOT Packing Group: NA

I.C.A.O.:  
I.C.A.O. Proper Shipping Name: Not Currently Regulated
--  
ICAO Hazard Class: NA
ICAO Subsidiary Risk: NA
ICAO ID Number: NA
ICAO Packing Group: NA

I.M.O.:  
I.M.O. Proper Shipping Name: Not Currently Regulated
--  
I.M.O. Hazard Class: NA
I.M.O. Subsidiary Risk: NA
I.M.O. ID Number: NA
I.M.O. Packing Group: NA

15. REGULATORY INFORMATION

U.S. Federal Regulations:  
O.S.H.A.: This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

E.P.A.:  
S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): Immediate (Acute) Health Hazard
S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.
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302 (EHS) TPQ (40 CFR 355): Sulfuric Acid 1000 lbs.
304 CERCLA RQ (40 CFR 302.4): Sulfuric Acid 1000 lbs.
304 EHS RQ (40 CFR 355): Sulfuric Acid - RQ 1000 lbs.
RCRA: Contains RCRA regulated substances. See Section 13, EPA Waste ID Number.
C.P.S.C.: Not applicable

State Regulations:  
California Prop. 65: No Prop. 65 listed chemicals are present in this product.
Identification of Prop. 65 Ingredient(s): None
Trade Secret Registry: Not applicable

National Inventories:  
U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).
TSCA CAS Number: Not applicable.

16. OTHER INFORMATION
**Intended Use:** Standard solution


**Legend:**

- NA - Not Applicable
- ND - Not Determined
- NV - Not Available

**w/w - weight/weight**

**w/v - weight/volume**

**v/v - volume/volume**

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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