

SAFETY DATA SHEET

Issue Date 17-Jun-2021 Revision Date 26-Jan-2024 Version 4 Page 1 / 17

1. IDENTIFICATION

Product identifier

Product Name Sulfuric Acid Standard Solution 0.020N (N/50)

Other means of identification

Product Code(s) 20353

Safety data sheet number M00347

Recommended use of the chemical and restrictions on use

Recommended Use Water Analysis. Standard solution.

Uses advised against None. Restrictions on use None.

Details of the supplier of the safety data sheet

Manufacturer Address

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation

Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word

Danger



Hazard statements

H318 - Causes serious eye damage

EN / AGHS Page 1/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50)

Revision Date 26-Jan-2024

Page 2/17

Precautionary statements

P280 - Wear protective gloves, protective clothing, eye protection, and face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

Other Hazards Known

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Percent ranges are used where confidential product information is applicable.

| Chemical name | CAS No | Percent Range | HMRIC # |
|---------------|-----------|------------------|---------|
| Sulfuric acid | 7664-93-9 | <1% | - |
| Formaldehyde | 50-00-0 | <0.1% | - |
| Methanol | 67-56-1 | <0.1% | - |

4. FIRST AID MEASURES

Description of first aid measures

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in

attendance.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact Get immediate medical advice/attention. Rinse immediately with plenty of water, also under

the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical

attention if irritation develops and persists.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth

to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

surrounding environment.

EN / AGHS Page 2/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50)

Revision Date 26-Jan-2024

Page 3 / 17

Unsuitable Extinguishing Media

Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the

chemical

No information available.

Hazardous combustion products

This material will not burn.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

U.S. 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. Outside of the US, only persons properly qualified according to state or local regulations should

respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Personal precautions

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder,

sawdust). Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. **Storage Conditions**

Keep out of the reach of children.

Flammability class Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

EN / AGHS Page 3 / 17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50)

Revision Date 26-Jan-2024

Page 4 / 17

Exposure Guidelines

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH |
|-----------------|-------------------------------|---------------------------------------|-----------------------------|
| Sulfuric acid | TWA: 0.2 mg/m³ thoracic | TWA: 1 mg/m ³ | IDLH: 15 mg/m ³ |
| CAS#: 7664-93-9 | particulate matter | (vacated) TWA: 1 mg/m ³ | TWA: 1 mg/m ³ |
| Formaldehyde | dermal sensitizer;respiratory | TWA: 0.75 ppm | IDLH: 20 ppm |
| CAS#: 50-00-0 | sensitizer | (vacated) TWA: 3 ppm | Ceiling: 0.1 ppm 15 min |
| | STEL: 0.3 ppm | (vacated) STEL: 10 ppm | TWA: 0.016 ppm |
| | TWA: 0.1 ppm | (vacated) Ceiling: 5 ppm | |
| | | STEL: 2 ppm | |
| Methanol | STEL: 250 ppm | TWA: 200 ppm | IDLH: 6000 ppm |
| CAS#: 67-56-1 | TWA: 200 ppm | TWA: 260 mg/m ³ | TWA: 200 ppm |
| | S* | (vacated) TWA: 200 ppm | TWA: 260 mg/m ³ |
| | | (vacated) TWA: 260 mg/m ³ | STEL: 250 ppm |
| | | (vacated) STEL: 250 ppm | STEL: 325 mg/m ³ |
| | | (vacated) STEL: 325 mg/m ³ | |
| | | (vacated) SKN* | |

Appropriate engineering controls

Engineering Controls

Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required. Wear

breathing apparatus if exposed to vapors/dusts/aerosols.

Hand Protection Wear suitable gloves.

Eye/face protection Tight sealing safety goggles.

Skin and body protectionWear suitable protective clothing.

General Hygiene Considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow

into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

Appearance aqueous solution Color colorless

Odor None Odor threshold No data available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

Molecular weight No data available

pH 1.8 @ 20 °C

Melting point / freezing point \sim 0 °C / 32 °F

Initial boiling point and boiling range ~ 100 °C / 212 °F

EN / AGHS Page 4/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) **Revision Date** 26-Jan-2024

Page 5 / 17

Evaporation rate 1 (water = 1)

Vapor pressure 23.777 mm Hg / 3.17 kPa at 25 °C / 77 °F

Relative vapor density 0.03

Specific gravity - VALUE 1 0.985

Partition coefficient Not applicable

Soil Organic Carbon-Water Partition

Coefficient

Not applicable

Autoignition temperature No data available

Decomposition temperatureNo data available

Dynamic viscosity

No data available

Kinematic viscosity

No data available

Solubility(ies)

Water solubility

| Water solubility classification | Water solubility_ | Water Solubility Temperature_ |
|---------------------------------|-------------------|-------------------------------|
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

Solubility in other solvents

| Chemical Name | Chemical Name Solubility classification | | Solubility Temperature_ |
|---------------|---|--|-------------------------|
| Acid | Acid Soluble | | 25 °C / 77 °F |

Other information

Metal Corrosivity

Steel Corrosion Rate0.87 mm/yr/ 0.03 in/yrAluminum Corrosion Rate1.02 mm/yr/ 0.04 in/yr

Volatile Organic Compounds (VOC) Content

See ingredients information below

| Chemical name | CAS No | Volatile organic compounds | CAA (Clean Air Act) |
|---------------|-----------|----------------------------|---------------------|
| | | (VOC) content | |
| Sulfuric acid | 7664-93-9 | No data available | - |
| Formaldehyde | 50-00-0 | No data available | Χ |
| Methanol | 67-56-1 | 100% | X |

Explosive properties

Upper explosion limitNo data availableLower explosion limitNo data available

Flammable properties

Flash point No data available

Flammability Limit in Air

Upper flammability limit:No data availableLower flammability limit:No data available

EN / AGHS Page 5/17

Product Code(s) 20353 Issue Date 17-Jun-2021

Revision Date 26-Jan-2024 Version 4

Page 6 / 17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50)

Oxidizing properties No data available. **Bulk density** No data available

10. STABILITY AND REACTIVITY

Reactivity

Not applicable.

Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation No known effect based on information supplied.

Eye contact Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause

irreversible damage to eyes.

Skin contact May cause irritation.

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion

Symptoms Redness. Burning. May cause blindness.

Acute toxicity

Based on available data, the classification criteria are not met

Mixture

No data available.

Ingredient Acute Toxicity Data

Test data reported below.

EN / AGHS 6 / 17 Page

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) Revision Date 26-Jan-2024 Page 7 / 17

Oral Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|-------------------------|---------------|---------------|-----------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rat LD ₅₀ | 100 mg/kg | None reported | None reported | GESTIS |

Dermal Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|----------------------------|---------------|---------------|-----------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rabbit LD ₅₀ | 270 mg/kg | None reported | None reported | GESTIS |

Inhalation (Dust/Mist) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|-------------------------|---------------|---------------|-----------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rat LC ₅₀ | 0.578 mg/L | 4 hours | None reported | LOLI |

Inhalation (Vapor) Exposure Route

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

| ATEmix (oral) | No information available |
|-------------------------------|--------------------------|
| ATEmix (dermal) | No information available |
| ATEmix (inhalation-dust/mist) | No information available |
| ATEmix (inhalation-vapor) | No information available |
| ATEmix (inhalation-gas) | No information available |

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|---|---------|------------------|------------------|-------------------------------------|--|
| Sulfuric acid (<1%) CAS#: 7664-93-9 | Existing human experience | Human | None reported | None reported | Corrosive to skin | HSDB |
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Standard Draize Test | Human | 0.150 mg | 72 hours | Corrosive to skin | RTECS |
| Methanol (<0.1%) CAS#: 67-56-1 | OECD Test 439: In Vitro Skin Irritation: Reconstructed Human Epidermis | Rabbit | None reported | 20 hours | Not corrosive or irritating to skin | ECHA |

EN / AGHS Page 7/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) **Revision Date** 26-Jan-2024

Page 8 / 17

| (Rhe) Test Method | | | |
|-------------------|--|--|--|
|-------------------|--|--|--|

Serious eye damage/irritation

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Mixture

No data available.

Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|--|---------|---------------|------------------|-------------------------------------|--|
| Sulfuric acid (<1%) CAS#: 7664-93-9 | Existing human experience | Human | None reported | None reported | Corrosive to eyes | HSDB |
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rinse Test | Human | 1 ppm | 6 minutes | Corrosive to eyes | RTECS |
| Methanol (<0.1%) CAS#: 67-56-1 | OECD Test 439: In Vitro Skin Irritation: Reconstructed Human Epidermis (Rhe) Test Method | Rabbit | 0.05 mL | 24 hours | Not corrosive or irritating to eyes | ECHA |

Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Sensitization Data

Test data reported below.

Skin Sensitization Exposure Route

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|--|---|------------|---------------------------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Patch test | Human | Confirmed to be a skin sensitizer | ERMA |
| Methanol (<0.1%) CAS#: 67-56-1 | OECD Test No. 406: Skin Sensitization | Guinea pig | Not confirmed to be a skin sensitizer | ECHA |

Respiratory Sensitization Exposure Route

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|---------------|-----------------|------------|-------------------------------|--|
| Formaldehyde | IgE Specific | Guinea pig | Confirmed to be a respiratory | CICAD |
| (<0.1%) | Immune Response | | sensitizer | |
| CAS#: 50-00-0 | Test | | | |

STOT - single exposure

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data

EN / AGHS Page 8/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) **Revision Date** 26-Jan-2024

Page 9 / 17

Test data reported below.

Oral Exposure Route

| Chemical name | Endpoint | Reported | Exposure | Toxicological effects | Key literature references and |
|---------------|----------|-----------|---------------|----------------------------|-------------------------------|
| | type | dose | time | | sources for data |
| Formaldehyde | Human | 70 mg/kg | None reported | Gastrointestinal | RTECS |
| (<0.1%) | LDLo | | | Kidney, Ureter, or Bladder | |
| CAS#: 50-00-0 | | | | Liver | |
| | | | | Other changes | |
| | | | | Ulcerated stomach | |
| | | | | Other changes | |
| Methanol | Human | 143 mg/kg | None reported | Lungs, Thorax, or | RTECS |
| (<0.1%) | LDLo | | | Respiration | |
| CAS#: 67-56-1 | | | | Dyspnea | |

Inhalation (Vapor) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---------------|---------------|---------------|---|--|
| Sulfuric acid (<1%) CAS#: 7664-93-9 | Human TD∟₀ | 0.144 mg/L | 5 minutes | Lungs, Thorax, or Respiration Dyspnea | RTECS |
| Methanol (<0.1%) CAS#: 67-56-1 | Human TC∟₀ | 300 mg/L | None reported | Lungs, Thorax, or Respiration Other changes | RTECS |

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Test data reported below.

Oral Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--------------------------------------|------------------|---------------|---------------|-----------------------|--|
| Methanol (<0.1%) CAS#: 67-56-1 | Monkey | 2340 mg/kg | 3 days | None reported | ECHA |

Inhalation (Vapor) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|------------------|---------------|---------------|---|--|
| Sulfuric acid (<1%) CAS#: 7664-93-9 | Human TC∟₀ | 0.003 mg/L | 168 days | Musculoskeletal Changes in teeth and supporting structures | RTECS |
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Human TC∟₀ | 0.017 mg/L | 0.5 days | Eye Lungs, Thorax, or Respiration Lacrimation Other changes | RTECS |

Carcinogenicity

Based on available data, the classification criteria are not met.

Mixture

EN / AGHS Page 9/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) **Revision Date** 26-Jan-2024

Page 10 / 17

No data available.

Ingredient Carcinogenicity Data

Test data reported below.

| Chemical name | CAS No | ACGIH | IARC | NTP | OSHA |
|---------------|-----------|-------|---------|-------|------|
| Sulfuric acid | 7664-93-9 | A2 | Group 1 | Known | X |
| Formaldehyde | 50-00-0 | A1 | Group 1 | Known | X |
| Methanol | 67-56-1 | - | - | - | - |

Legend

| ACGIH (American Conference of Governmental Industrial Hygienists) | A2 - Suspected Human Carcinogen |
|---|----------------------------------|
| IARC (International Agency for Research on Cancer) | Group 1 - Carcinogenic to Humans |
| NTP (National Toxicology Program) | Known - Known Carcinogen |
| OSHA | X - Present |

Inhalation (Vapor) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|---------------|---------------|---------------|----------------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rat | 15 mg/L | 78 weeks | Olfaction Tumors | RTECS |

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Mixture invitro Data

No data available.

Substance invitro Data

Test data reported below.

| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data |
|---|-------------------------|------------------|------------------|------------------|--|--|
| Sulfuric acid (<1%) CAS#: 7664-93-9 | Cytogenetic analysis | Hamster ovary | 4 mmol/L | None reported | Positive test result for mutagenicity | No information available |
| Methanol (<0.1%) CAS#: 67-56-1 | DNA inhibition | Human lymphocyte | 300 mmol/L | None reported | Positive test result for mutagenicity | RTECS |

Mixture invivo Data

No data available.

Substance invivo Data

Test data reported below.

Oral Exposure Route

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--------------------------------------|------------|---------|------------------|------------------|--|--|
| Methanol (<0.1%) CAS#: 67-56-1 | DNA damage | Rat | 0.405 mg/kg | None reported | Positive test result for mutagenicity | RTECS |

Inhalation (Vapor) Exposure Route

EN / AGHS Page 10/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) **Revision Date** 26-Jan-2024

Page 11 / 17

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|-------------------|---------|---------------|------------------|---------------------------------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Micronucleus test | Human | .000985 mg/L | 8.5 years | Positive test result for mutagenicity | RTECS |

Reproductive toxicity

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Reproductive Toxicity Data

Test data reported below.

Oral Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---------------|---------------|---------------|---------------|---------------------------------|--|
| | | | | | |
| Methanol | Rat | 4118 mg/kg | 10 days | Effects on Embryo or Fetus | RTECS |
| (<0.1%) | TDLo | | | Specific Developmental | |
| CAS#: 67-56-1 | | | | Abnormalities | |
| | | | | Ear | |
| | | | | Eye | |
| | | | | Fetotoxicity (except death e.g. | |
| | | | | stunted fetus) | |
| | | | | Urogenital System | |

Inhalation (Dust/Mist) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---------------|------------------|---------------|---------------|---------------------------------|--|
| Methanol | Rat | 0.0026 mg/L | 22 days | Effects on Embryo or Fetus | RTECS |
| (<0.1%) | TCLo | | | Fetotoxicity (except death e.g. | |
| CAS#: 67-56-1 | | | | stunted fetus) | |

Inhalation (Vapor) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|----------------|---------------|---------------|---|--|
| Sulfuric acid (<1%) CAS#: 7664-93-9 | Rabbit TC∟₀ | 0.02 mg/L | 7 hours | Specific Developmental Abnormalities Musculoskeletal system | No information available |
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Rat TC∟₀ | 40 mg/L | 14 days | Effects on Embryo or Fetus Fetotoxicity (except death e.g. stunted fetus) | RTECS |

Aspiration hazard

Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity Based on available data, the classification criteria are not met.

Unknown aquatic toxicity 0% of the mixture consists of components(s) of unknown hazards to the aquatic

environment.

Mixture

Aquatic Acute Toxicity

EN / AGHS Page 11/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) **Revision Date** 26-Jan-2024

Page 12 / 17

No data available.

Aquatic Chronic Toxicity

No data available.

Substance

Aquatic Acute Toxicity

Test data reported below.

Fish

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|------------------|---------------|---------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | 96 hours | Morone saxatilis | LC50 | 6.7 mg/L | PEEN |

Crustacea

| Chemical name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|---------------|---------------|---------------|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | 48 Hours | Daphnia pulex | EC50 | 5.8 mg/L | PEEN |

Aquatic Chronic Toxicity

No data available.

Persistence and degradability

Mixture

No data available.

Bioaccumulation

There is no data for this product

Mixture

No data available.

Partition coefficient Not applicable

Mobility

products

Soil Organic Carbon-Water Partition Coefficient Not applicable

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

US EPA Waste Number D002, U154 U122

| Chemical name | RCRA | RCRA - Basis for Listing RCRA - D Series Wastes RCRA - U Series Wastes |
|---------------|------|--|
| | | · |

EN / AGHS Page 12/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50)

Revision Date 26-Jan-2024

Page 13 / 17

| Formaldehyde | U122 | Included in waste | - | U122 |
|--------------|------|---------------------------|---|------|
| 50-00-0 | | streams: K009, K010, | | |
| | | K038, K040, K156, K157 | | |
| Methanol | - | Included in waste stream: | - | U154 |
| 67-56-1 | | F039 | | |

Special instructions for disposal

If permitted by regulation. 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. Dispose of material in an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

Note: No special precautions necessary.

Additional information

15. REGULATORY INFORMATION

National Inventories

TSCA Complies DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS Complies Complies **ENCS** Complies **IECSC** Complies **KECL PICCS** Complies **TCSI** Complies Complies **AICS NZIoC** Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

EN / AGHS Page 13/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) **Revision Date** 26-Jan-2024

Page 14 / 17

| Chemical name | SARA 313 - Threshold Values % |
|----------------------------------|-------------------------------|
| Sulfuric acid (CAS #: 7664-93-9) | 1.0 |
| Formaldehyde (CAS #: 50-00-0) | 0.1 |
| Methanol (CAS #: 67-56-1) | 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 |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|----------------------------|--------------------------------|------------------------|------------------------------|-------------------------------|
| Sulfuric acid 7664-93-9 | 1000 lb | - | - | Х |
| Formaldehyde 50-00-0 | 100 lb | - | - | Х |

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

| Chemical name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---------------|--------------------------|----------------|--------------------------|
| Sulfuric acid | 1000 lb | 1000 lb | RQ 1000 lb final RQ |
| 7664-93-9 | | | RQ 454 kg final RQ |
| Formaldehyde | 100 lb | 100 lb | RQ 100 lb final RQ |
| 50-00-0 | | | RQ 45.4 kg final RQ |
| Methanol | 5000 lb | - | RQ 5000 lb final RQ |
| 67-56-1 | | | RQ 2270 kg final RQ |

U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues

| Chemical name | U.S Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues |
|--|--|
| Formaldehyde (<0.1%) CAS#: 50-00-0 | Release - Toxic (solution) |

U.S. - DEA (Drug Enforcement Administration) List I & List II

| Chemical name | U.S DEA (Drug Enforcement | U.S DEA (Drug Enforcement | |
|-----------------|---------------------------------------|--|--|
| | Administration) - List I or Precursor | Administration) - List II or Essential | |
| | Chemicals | Chemicals | |
| Sulfuric acid | Not Listed | 50 gallon Export Volume (exports, | |
| (<1%) | | transshipments and international | |
| CAS#: 7664-93-9 | | transactions to designated countries | |
| | | given in 1310.08(b)) | |

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical name | California Proposition 65 |
|----------------------------------|---------------------------|
| Sulfuric acid (CAS #: 7664-93-9) | Carcinogen |

EN / AGHS Page 14/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) **Revision Date** 26-Jan-2024

Page 15 / 17

| Formaldehyde (CAS #: 50-00-0) | Carcinogen |
|-------------------------------|---------------|
| Methanol (CAS #: 67-56-1) | Developmental |

WARNING: This product can expose you to chemicals including Formaldehyde, Methanol, Sulfuric acid, which are known to the State of California to cause cancer or birth defects or reproductive harm. For more information, go to http://www.P65Warnings.ca.gov

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|----------------------------|------------|---------------|--------------|
| Sulfuric acid 7664-93-9 | X | X | X |
| Formaldehyde 50-00-0 | Х | Х | X |
| Methanol 67-56-1 | X | X | Х |

U.S. EPA Label Information

| Chemical name | FIFRA | FDA |
|---------------|----------|-----------------|
| Sulfuric acid | 180.0910 | 21 CFR 184.1095 |
| Methanol | 180.0910 | - |

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments

None

Additional information

Global Automotive Declarable Substance List (GADSL)

| Chemical name | Global Automotive Declarable Substance List Classifications | Global Automotive Declarable Substance List Thersholds |
|---------------|---|---|
| Formaldehyde | Prohibited Substance (FI) | 0.1 % |
| 50-00-0 | Prohibited Substance (LR) | |
| | Declarable Substance (LR) | |
| | Declarable Substance (FI) | |
| Methanol | Declarable Substance (FI) | 0.6 % |
| 67-56-1 | Declarable Substance (LR) | |
| | Prohibited Substance (FI) | |
| | Prohibited Substance (LR) | |

NFPA and HMIS Classifications

| NFPA | Health hazards - 3 | Flammability - 0 | Instability - 0 | Physical and chemical |
|------|--------------------|------------------|----------------------|-----------------------|
| | | | | properties - |
| HMIS | Health hazards - 3 | Flammability - 0 | Physical hazards - 0 | Personal protection - |
| | | - | - | X |
| | | | | - 1 |

Key or legend to abbreviations and acronyms used in the safety data sheet

EN / AGHS Page 15/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50)

Revision Date 26-Jan-2024

Page 16 / 17

ACGIH (American Conference of Governmental Industrial Hygienists)

ATSDR ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS (Chemical Carcinogenesis Research Information System)

CDC (Center for Disease Control)

CEPA (Canadian Environmental Protection Agency)

CICAD CICAD (Concise International Chemical Assessment Documents)

ECHA ECHA (The European Chemicals Agency)
EEA EEA (European Environment Agency)
EPA EPA (Environmental Protection Agency)

ERMA (New Zealands Environmental Risk Management Authority)

ECOSARS Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™

FDA FDA (Food & Drug Administration)

GESTIS GESTIS (Information System on Hazardous Substances of the German Social Accident

Insurance)

HSDB (Hazardous Substances Data Bank)

INERISINERIS (The National Industrial Environment and Risks Institute)IPCS INCHEMIPCS INCHEM (International Programme on Chemical Safety)IUCLIDIUCLID (The International Uniform Chemical Information Database)NITEJapan National Institute of Technology and Evaluation (NITE)

NIH NIH (National Institutes of Health)

NIOSH NIOSH (National Institute for Occupational Safety and Health)
LOLI (List of Lists - An International Chemical Regulatory Database)

NDF no data

NICNAS Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH IDLH Immediately Dangerous to Life or Health

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

PEEN PEEN (Pan European Ecological Network)

RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS (Screening Information Dataset) for High Volume Chemicals

SYKE The Finnish Environment Institute (SYKE)

USDA USDC (United States Department of Commerce)

WHO (World Health Organization)

<u>Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</u>

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

MAC Maximum Allowable Concentration Ceiling Ceiling Limit Value

X Listed Vacated These values have no official status. The only

binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state

regulations.

SKN* Skin designation SKN+ Skin sensitization
RSP+ Respiratory sensitization ** Hazard Designation
C Carcinogen R Reproductive toxicant

M mutagen

Prepared By Hach Product Compliance Department

Issue Date 17-Jun-2021

Revision Date 26-Jan-2024

Revision Note None

Disclaimer

EN / AGHS Page 16/17

Product Name Sulfuric Acid Standard Solution 0.020N (N/50) **Revision Date** 26-Jan-2024 **Page** 17 / 17

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.

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End of Safety Data Sheet

EN / AGHS Page 17/17