


SECTION 1: Identification

| | |
|---|--|
| Product identifier | |
| Product name | Acid Demand Reagent |
| Product number | R-0853 |
| Recommended use and restrictions | To be used in accordance with manufacturer instructions or under the direct guidance of the manufacturer. |
| Manufacturer | Taylor Technologies, Inc. 31 Loveton Circle Sparks, MD 21152 Phone: (410) 472-4340 Emergency phone: (800) 837-8548 |

SECTION 2: Hazard(s) identification

| | | |
|---|--|-------------|
| Physical hazards | No data available | |
| Health hazards | Eye damage/irritation | Category 2A |
| | Skin corrosion/irritation | Category 2 |
| Environmental hazards | No data available | |
| Label elements | | |
| Hazard pictograms |  | |
| Signal word | Warning | |
| Hazard statements | Causes skin irritation. Causes serious eye irritation. | |
| Precautionary statements | | |
| Prevention | Wash skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection if contact is likely to occur. | |
| Response | IF ON SKIN: Wash with plenty of water. IF SKIN IRRITATION OCCURS: Get medical advice/attention. Take off all contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. IF EYE IRRITATION PERSISTS: Get medical advice/attention. | |
| Storage | Keep tightly capped. Store out of direct sunlight between 36°F–85°F. | |
| Disposal | No data available | |
| Hazards not otherwise classified | No data available | |

SECTION 3: Composition/information on ingredients

Mixture

| Chemical name | Common name and synonyms | CAS number | % |
|---------------|--------------------------|------------|----------|
| Water | Dihydrogen oxide | 7732-18-5 | 99 |
| Sulfuric acid | Hydrogen sulfate | 7664-93-9 | 0.01–0.1 |

SECTION 4: First-aid measures

If inhaled

Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops. Give oxygen or artificial respiration if needed.

In case of skin contact

Immediately flush skin with plenty of water for at least 20 minutes. If clothing comes in contact with the product, the clothing should be removed and laundered before reuse. Seek medical attention if irritation develops.

In case of eye contact

Immediately flush eyes with plenty of water for at least 20 minutes. Remove contact lenses if present and easy to do. Continue rinsing. If symptoms persist or in all cases of concern, seek medical advice.

If swallowed

Rinse mouth. Never give anything by mouth to a person who is unconscious or is having convulsions. Do NOT induce vomiting unless directed by physician. If vomiting occurs, keep head low so that stomach content does not get into the lungs. If symptoms persist or in all cases of concern, seek medical advice.

Most important symptoms and effects, both acute and delayed

Refer to section 2 and/or section 11 of the SDS for the most important known symptoms and effects.

Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

Ensure medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SECTION 5: Firefighting measures**Extinguishing media**

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|--------------------------------|--|
| Suitable extinguishing media | Use extinguishing media appropriate for surrounding fire. |
| Unsuitable extinguishing media | Do not use a heavy water stream. Use of heavy stream of water may spread fire. |

Specific hazards arising from the substance or mixture

| | |
|-------------------------------|---|
| Fire hazard | Not flammable |
| Explosion hazard | Not explosive |
| Reactivity | Hazardous reactions will not occur under normal conditions. |
| Hazardous combustion products | Sulfur oxides |

Advice for firefighters

| | |
|-------------------------------------|---|
| Precautionary measures | Exercise caution when fighting any chemical fire; hazardous fumes will be present. |
| Firefighting equipment/instructions | Use water spray or fog for cooling exposed containers. |
| Protection during firefighting | Do not enter fire area without proper protective equipment, including respiratory protection. |
| Other information | Refer to section 9 of the SDS for flammability properties. |

SECTION 6: Accidental release measures**Personal precautions, protective equipment, and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during cleanup. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protective equipment, refer to section 8 of the SDS.

Environmental precautions

Avoid discharge into drains, watercourses, or onto the ground.

Methods and material for containment and cleaning up

Dike the spilled material where this is possible. Stop leak if it can be done without risk. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth, and place into containers. Prevent entry into waterways, sewers, basements, or confined areas. Following product recovery, flush area with water to remove residual contamination.

Never return spills to original containers for reuse. Contaminated absorbent material may pose the same hazards as the spilled product.

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Reference to other sections

For exposure controls and personal protection, refer to section 8 of the SDS. For waste disposal, refer to section 13 of the SDS.

SECTION 7: Handling and storage**Precautions for safe handling**

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. For personal protective equipment, refer to section 8 of the SDS. Keep away from incompatibles. Observe good industrial hygiene practices. Label containers appropriately.

Conditions for safe storage, including any incompatibilities

Keep tightly capped. Store out of direct sunlight between 36°F–85°F. Store away from incompatible materials (refer to section 10 of the SDS).

SECTION 8: Exposure controls/personal protection

Occupational exposure limits

ACGIH Threshold Limit Values

| Components | Type | Value | Form |
|-------------------------------|------|-----------------------|-------------------|
| Sulfuric acid (CAS 7664-93-9) | TWA | 0.2 mg/m ³ | Thoracic fraction |

NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value | Form |
|-------------------------------|------|---------------------|----------------|
| Sulfuric acid (CAS 7664-93-9) | TWA | 1 mg/m ³ | Not applicable |

OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Type | Value | Form |
|-------------------------------|------|---------------------|----------------|
| Sulfuric acid (CAS 7664-93-9) | PEL | 1 mg/m ³ | Not applicable |

Biological limit values No biological exposure limits noted for the ingredient(s)

Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eyewash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Eye/face protection Wear appropriate chemical safety goggles if contact is likely to occur.
Skin protection Wear appropriate chemical-resistant gloves and clothing if contact is likely to occur.
Body protection Wear appropriate protective clothing.
Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fumes at levels exceeding the exposure limits. Advice should be sought from respiratory protection suppliers.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | |
|---|----------------------------|
| Physical state | Liquid |
| Form | Liquid |
| Color | Clear, colorless |
| Odor | Odorless |
| Odor threshold | No data available |
| pH | 2 |
| Evaporation rate | No data available |
| Melting point | No data available |
| Freezing point | No data available |
| Boiling point | 212°F (100°C) |
| Flash point | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Flammability (solid, gas) | No data available |
| Vapor pressure | 17 mm Hg |
| Relative vapor density | 0.6 |
| Solubility | Soluble in all proportions |
| Partition coefficient (n-octanol/water) | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

SECTION 10: Stability and reactivity

Reactivity Hazardous reactions will not occur under normal conditions.

Chemical stability Stable under recommended handling and storage conditions (refer to section 7 of the SDS)

| | |
|---|--|
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use |
| Conditions to avoid | Contact with incompatible materials. Do not use in areas without adequate ventilation. |
| Incompatible materials | Metal compounds, nitromethane, oxidizing agents, and sugars |

SECTION 11: Toxicological information

Information on toxicological effects

| | |
|--------------|--|
| Inhalation | May cause irritation to the respiratory system |
| Skin contact | May cause slight or mild transient irritation |
| Eye contact | May cause serious irritation |
| Ingestion | May cause irritation, nausea, vomiting, and diarrhea |

Most important symptoms/effects, acute and delayed

Direct skin contact may cause slight or mild transient irritation. Symptoms may include redness and itching.

Direct eye contact may cause slight or mild transient irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Inhalation of mists can cause respiratory irritation. Symptoms may include coughing and breathing difficulties.

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

Acute toxicity

This product is not classified as an acute toxicity hazard. See below for individual ingredient acute toxicity data.

| Components | Species | Test Results |
|---|---|----------------------------|
| Sulfuric acid (CAS 7664-93-9) | | |
| Acute | | |
| <i>Inhalation</i> | | |
| LC ₅₀ | Rat | 0.375 mg/L, 4 hours (mist) |
| <i>Oral</i> | | |
| LD ₅₀ | Rat | 2140 mg/kg |
| Respiratory or skin sensitization | No data available | |
| Germ cell mutagenicity | No data available | |
| Carcinogenicity | Occupational exposure to strong inorganic acid mists containing sulfuric acid is carcinogenic to humans. The information located is insufficient to conclude that sulfuric acid itself is a carcinogen. IARC has concluded there is sufficient evidence that occupational exposure to strong inorganic acid mists containing sulfuric acid is carcinogenic to humans (Group 1. ACGIH has designated strong inorganic acid mists containing sulfuric acid as A2 ([suspected human carcinogen]). NTP has listed strong inorganic acid mists containing sulfuric acid as a known human carcinogen. These classifications are for inorganic acid mists containing sulfuric acid and do not apply to sulfuric acid to sulfuric acid solutions. | |
| Reproductive toxicity | No data available | |
| Specific target organ toxicity (single exposure) | No data available | |
| Specific target organ toxicity (repeated exposure) | No data available | |
| Aspiration hazard | No data available | |

SECTION 12: Ecological information

This product is not classified as environmentally hazardous; however, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

SECTION 13: Disposal considerations

Collect and reclaim or dispose of in sealed containers at a licensed waste disposal site. Since emptied containers may retain product residue, follow label warnings even after container is emptied. This material and its container must be disposed of in a safe manner. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

| | |
|-------------|-----------------------------------|
| DOT | Not regulated as a dangerous good |
| IATA | Not regulated as a dangerous good |
| IMDG | Not regulated as a dangerous good |

SECTION 15: Regulatory information

U.S. federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA Hazardous Substance (40 CFR 302.4)

Sulfuric acid (CAS 7664-93-9)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Sulfuric acid (CAS 7664-93-9)

DEA Exempt Chemical Mixtures Code Number

Sulfuric acid (CAS 7664-93-9)

Drug Enforcement Administration (DEA) List 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c))

Sulfuric acid (CAS 7664-93-9)

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))

Sulfuric acid (CAS 7664-93-9)

SARA 302 Extremely Hazardous Substance

Sulfuric acid (CAS 7664-93-9)

SARA 304 Emergency Release Notification

Sulfuric acid (CAS 7664-93-9)

SARA 313 (TRI Reporting)

Sulfuric acid (CAS 7664-93-9)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

| | |
|-------------------|-----|
| Immediate hazard | Yes |
| Delayed hazard | No |
| Fire hazard | No |
| Pressure hazard | No |
| Reactivity hazard | Yes |

U.S. state regulations

California Proposition 65 - CRT: Listed date/carcinogenic substance

Sulfuric acid (CAS 7664-93-9) This product is not an inorganic acid mist containing sulfuric acid; therefore, the Proposition 65 statement does not apply.

Massachusetts Right-to-Know Act

Sulfuric acid (CAS 7664-93-9)

New Jersey Worker and Community Right-to-Know Act

Sulfuric acid (CAS 7664-93-9)

Pennsylvania Worker and Community Right-to-Know Act

Sulfuric acid (CAS 7664-93-9)

Rhode Island Right-to-Know Act

Sulfuric acid (CAS 7664-93-9)

SECTION 16: Other information

NFPA Rating

| | |
|---------------|-----|
| Health hazard | 0 |
| Fire hazard | 0 |
| Reactivity | 0 |
| Specific | N/A |

Disclaimer

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