# Safety Data Sheet

**Issue Date:** 20-Jan-2015  
**Revision Date:** 09-Feb-2015  
**Version:** 5  

## 1. IDENTIFICATION

**Product Identifier**  
**Product Name**  
Hydrox-Sil AQ

**Other means of identification**  
**SDS #**  
270451e (RT-001)

**Product Code**  
1-270451-200, 1-270451-500, 1-270452-500, 1-270453-200

**UN/ID No**  
UN1993

**Recommended use of the chemical and restrictions on use**  
**Recommended Use**  
Analytical Reagent for Gas Chromatography.

**Details of the supplier of the safety data sheet**  
**Supplier Address**  
Regis Technologies, Inc.  
8210 N. Austin Avenue  
Morton Grove, IL 60053

**Emergency Telephone Number**  
**Company Phone Number**  
847-967-6000; 800-323-8144 (toll free)  
Email: cservice@registech.com  
www.registech.com

**Emergency Telephone (24 hr)**  
INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance**  
Colorless to pale yellow liquid

**Physical State**  
Liquid

**Odor**  
Sharp penetrating odor

**Classification**

<table>
<thead>
<tr>
<th>Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Flammable Liquids</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

**Signal Word**  
Danger
Hazard Statements
Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation
May cause drowsiness or dizziness
Highly flammable liquid and vapor

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response
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
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Call a poison center or doctor/physician if you feel unwell
If skin irritation occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a poison center or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
IN CASE OF FIRE: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine</td>
<td>110-86-1</td>
<td>80-84</td>
</tr>
<tr>
<td>Trimethylsilylimidazole</td>
<td>18156-74-6</td>
<td>16-20</td>
</tr>
</tbody>
</table>

**If Chemical Name/CAS No is “proprietary” and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

4. FIRST-AID MEASURES

First Aid Measures

General Advice
Provide this SDS to medical personnel for treatment.

Eye Contact
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.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Call a poison center or doctor/physician if you feel unwell.

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Ingestion
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects

Symptoms
Causes serious eye irritation. Causes skin irritation. Harmful in contact with skin. Harmful if inhaled. Harmful if swallowed. May cause respiratory irritation. May cause drowsiness or dizziness.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
Symptomatic and supportive care. No specific antidote. Treatment based on physician judgment in response to reactions of the patient.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, or appropriate foam. Dry sand.

Unsuitable Extinguishing Media
Water may be ineffective in fighting fire. Water may be used to cool and dilute from as far a distance as possible.

Specific Hazards Arising from the Chemical
Emits toxic fumes under fire conditions. Highly flammable liquid and vapor. Hydrolyzes mildly to produce imidazole and hexamethyldisiloxane. Vapors are heavier than air and may travel along ground to ignition sources and flash back. Vapor-air mixtures are explosive above flash point within stated limits. Containers may burst due to pressure build-up of contents from exposure to the heat of fire. Water can be used to cool fire exposed containers.

Hazardous Combustion Products

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Environmental Precautions
See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment
Prevent further leakage or spillage if safe to do so. Isolate spill/release area. Contain and recover liquid where possible. Neutralize with suitable neutralizing agent for basic-amine solutions.

Methods for Clean-Up
Use chemically compatible spill pillows, or similar adsorbent material. Collect, seal in appropriate hazardous waste container, and hold for proper waste disposal. Wash spill site after material pickup is complete. Do not allow material to enter drains or watercourses.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling
Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Wear protective gloves/protective clothing and eye/face protection. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion proof equipment. Take precautionary measures against static discharges. Wash face, hands, and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed and store in a cool, dry and well-ventilated place. Handle and store under nitrogen. Protect from moisture. Use appropriate precautions for highly flammable liquids with a high potential for static accumulation. Empty containers retain product residue, (liquid/vapor), and can be dangerous.

Incompatible Materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine 110-86-1</td>
<td>TWA: 1 ppm</td>
<td>TWA: 5 ppm TWA: 15 mg/m³ (vacated) TWA: 5 ppm (vacated) TWA: 15 mg/m³</td>
<td>IDLH: 1000 ppm TWA: 5 ppm TWA: 15 mg/m³</td>
</tr>
</tbody>
</table>
Appropriate engineering controls

Engineering Controls: Apply technical measures to comply with the occupational exposure limits. Showers, Eyewash stations. Mechanical exhaust required. Hood recommended. Fume scrubber. Use adequate ventilation to keep airborne concentrations low.

Individual protection measures, such as personal protective equipment

Eye/Face Protection: Chemical safety glasses, goggles or face shield.

Skin and Body Protection: Wear impervious protective clothing including boots, gloves, lab coat, apron, or coveralls to prevent skin contact. Wear rubber or chemical resistant gloves to prevent skin contact.

Respiratory Protection: NIOSH/MSHA approved respirator for organic/amine gas, dust, and mists.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Colorless to pale yellow liquid</td>
<td>Odor: Sharp penetrating odor</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless to pale yellow</td>
<td>Odor Threshold: Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>&gt;7</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>115 °C / 239 °F</td>
<td>TCC</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&lt; 20 °C / 68 °F</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&lt;1</td>
<td>(butyl acetate = 1)</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Liquid- Not applicable</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>12.4%</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>1.8%</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>20 hPa</td>
<td>@ 20 °C (68 °F)</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>&gt;1</td>
<td>(Air=1)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.974 g/cm3</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Yes—Some solubility and mild decomposition in contact with water/moist air to form hexamethyldisiloxane and imidazole</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>482 °C / 900 °F</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Chemical Formula (components)</td>
<td>C₆H₁₉NSi₂ + C₃H₉CISi + C₅H₅N</td>
<td>(HMDS:TMCS:Pyridine, 2:1:10, w/w/v)</td>
</tr>
<tr>
<td>Molecular Mass (components)</td>
<td>161.4 (HMDS) + 108.64 (TMCS) + 79.10 (Pyridine)</td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions.
Chemical Stability
Stable if stored under nitrogen and protected from moisture.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.

Conditions to Avoid
Incompatible Materials. Avoid static discharge, heat, sparks, and open flame. Keep out of water supplies and sewers.

Incompatible Materials

Hazardous Decomposition Products

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact
Causes serious eye irritation.

Skin Contact
Causes skin irritation. Harmful in contact with skin.

Inhalation
Harmful if inhaled.

Ingestion
Harmful if swallowed.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine 110-86-1</td>
<td>= 866 mg/kg (Rat)</td>
<td>= 1121 mg/kg (Rabbit)</td>
<td>= 28500 mg/m³ (Rat) 1 h = 12.898 mg/L (Rat) 4 h</td>
</tr>
</tbody>
</table>

Information on physical, chemical and toxicological effects

Symptoms
Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity
Group 3 IARC components are "not classifiable as human carcinogens".

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine 110-86-1</td>
<td>A3</td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend
ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"

Numerical measures of toxicity
Product level testing not available

12. ECOLOGICAL INFORMATION
Ecotoxicity
This product as a whole has not been tested for ecotoxicity.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine 110-86-1</td>
<td>520: 24 h Tetrahymena pyriformis mg/L EC50</td>
<td>63.4 - 73.6: 96 h Pimephales promelas mg/L LC50 flow-through 26: 96 h Cyprinus carpio mg/L LC50 semi-static 4.6: 96 h Oncorhynchus mykiss mg/L LC50 static</td>
<td>520: 24 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
</tbody>
</table>

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine 110-86-1</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine 110-86-1</td>
<td>Toxic Ignitable</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

Note
Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1993
Proper Shipping Name Flammable liquids, n.o.s., (trimethylsilylimidazole, pyridine).
Hazard Class 3
Packing Group II

IATA

UN/ID No UN1993
Proper Shipping Name Flammable liquids, n.o.s., (trimethylsilylimidazole, pyridine).
Hazard Class                3
Packing Group            II

IMDG
UN/ID No               UN1993
Proper Shipping Name Flammable liquids, n.o.s., (trimethylsilylimidazole, pyridine).
Hazard Class          3
Packing Group         II

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>Present</td>
<td></td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Trimethylsilylimidazole</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>Present</td>
<td></td>
<td>X</td>
<td>Present</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
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
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine</td>
<td>1000 lb</td>
<td></td>
<td>RQ 1000 lb final RQ</td>
</tr>
<tr>
<td>110-86-1</td>
<td></td>
<td></td>
<td>RQ 454 kg final RQ</td>
</tr>
</tbody>
</table>

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine - 110-86-1</td>
<td>110-86-1</td>
<td>80-84</td>
<td>1.0</td>
</tr>
</tbody>
</table>

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)

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine - 110-86-1</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyridine</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>110-86-1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Issue Date: 20-Jan-2015  
Revision Date: 09-Feb-2015  
Revision Note: New format

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet