



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

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable Liquids	Category 2

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

Chemical Name	CAS No	Weight-%
Pyridine	110-86-1	80-84
Trimethylsilylimidazole	18156-74-6	16-20

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.
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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.
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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 Carbon oxides. Silicon oxides. Nitrogen oxides (NOx). Cyanide fumes.

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	Eliminate all ignition sources. Evacuate unnecessary personnel. Ventilate affected area. Wear protective gloves/protective clothing and eye/face protection. Wear respiratory protection.
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. Use only non-sparking tools. Take precautionary measures against static discharges. Wash face, hands, and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.
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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	Strong oxidizers. Peroxides. Strong acids. Acid chlorides. Alcohols. Chloroformates. Bromine trifluoride. Mixtures with formamide, iodine, and sulfur trioxide, maleic anhydride. Water, moisture, or humid air--mildly reactive, forms precipitate on contact--hydrolyzes to corrosive imidazole and flammable hexamethyldisiloxane.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Pyridine 110-86-1	TWA: 1 ppm	TWA: 5 ppm TWA: 15 mg/m ³ (vacated) TWA: 5 ppm (vacated) TWA: 15 mg/m ³	IDLH: 1000 ppm TWA: 5 ppm TWA: 15 mg/m ³

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

Physical State	Liquid	Odor	Sharp penetrating odor
Appearance	Colorless to pale yellow liquid	Odor Threshold	Not determined
Color	Colorless to pale yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	>7	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	115 °C / 239 °F	(@ 1.013 hPa)
Flash Point	< 20 °C / 68 °F	TCC
Evaporation Rate	<1	(butyl acetate = 1)
Flammability (Solid, Gas)	Liquid- Not applicable	
Upper Flammability Limits	12.4%	
Lower Flammability Limit	1.8%	
Vapor Pressure	20 hPa	@ 20°C (68°F)
Vapor Density	>1	(Air=1)
Specific Gravity	0.974 g/cm ³	
Water Solubility	Yes—Some solubility and mild decomposition in contact with water/moist air to form hexamethyldisiloxane and imidazole	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	482 °C / 900 °F	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Chemical Formuli (components)	C ₆ H ₁₉ NSi ₂ + C ₃ H ₉ ClSi + C ₅ H ₅ N (HMDS:TMCS:Pyridine, 2:1:10, w/w/v)	
Molecular Mass (components)	161.4 (HMDS) + 108.64 (TMCS) + 79.10 (Pyridine)	

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

Strong oxidizers. Peroxides. Strong acids. Acid chlorides. Alcohols. Chloroformates. Bromine trifluoride. Mixtures with formamide, iodine, and sulfur trioxide, maleic anhydride. Water, moisture, or humid air--mildly reactive, forms precipitate on contact--hydrolyzes to corrosive imidazole and flammable hexamethyldisiloxane.

Hazardous Decomposition Products

Carbon oxides. Silicone oxides. Nitrogen oxides (NOx). Cyanide fumes.

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

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Pyridine 110-86-1	= 866 mg/kg (Rat) = 891 mg/kg (Rat)	= 1121 mg/kg (Rabbit)	= 28500 mg/m ³ (Rat) 1 h = 12.898 mg/L (Rat) 4 h

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".

Chemical Name	ACGIH	IARC	NTP	OSHA
Pyridine 110-86-1	A3	Group 3		

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

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Pyridine 110-86-1	520: 24 h Tetrahymena pyriformis mg/L EC50	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		520: 24 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Pyridine 110-86-1	0.65

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

Chemical Name	California Hazardous Waste Status
Pyridine 110-86-1	Toxic Ignitable

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

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Pyridine	Present	X		Present		Present	X	Present	X	X
Trimethylsilylimidazole	Present	X		Present			X	Present	X	X

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)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Pyridine 110-86-1	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

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

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Pyridine - 110-86-1	110-86-1	80-84	1.0

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.

Chemical Name	California Proposition 65
Pyridine - 110-86-1	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Pyridine 110-86-1	X	X	X

16. OTHER INFORMATION**NFPA****Health Hazards****Flammability****Instability****Special Hazards**

Not determined

Not determined

Not determined

Not determined

HMIS**Health Hazards****Flammability****Physical Hazards****Personal Protection**

Not determined

Not determined

Not determined

Not determined

Issue Date: 20-Jan-2015
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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