Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

ULTRAFILL S-2001 SUPPRESSOR

Product use description

Revision date: 07/24/2002

Supplier Name & Address

Supplier Shipley Company

455 Forest Street

Marlborough, MA 01752

Manufacturer Name & Address – Canada only

Telephone

For non-emergency information contact: 508-481-7950

Emergency Telephone

Emergency telephone number

Chemtrec	800-424-9300
Shipley emergency	508-481-7950

2. COMPOSITION/INFORMATION ON INGREDIENTS

SECTION 2. Composition / information on components

Component	CAS **CAS-No.**	W/W **W/W**
Water	7732-18-5	95.0 - 99.0 %
Copper Sulfate	7758-98-7	0.1 - 0.5 %
Sulfuric acid	7664-93-9	0.1 - 0.5 %
Polyalkylene glycol		1.0 - 10.0 %

Canadian composition

EU Composition

3. HAZARDS IDENTIFICATION

Section 3 Hazards Identification

Emergency Overview

Emergency Overview

Form

Appearance

Form	liquid
Color	
Color	Clear - Pale Blue
Odor	
Odor	Odorless

Hazard Summary	**Warning!** Acidic liquid and vapor. Causes skin, eye, and respiratory tract irritation.

Potential Health Effects

Potential Health Effects

Primary Routes of Entry

Primary Routes of Entry: Inhalation, ingestion, eye and skin contact.

Eyes

Eyes: May cause pain, transient irritation and superficial corneal effects.

Skin

Skin: Material may cause irritation.

Ingestion

Ingestion: Swallowing may have the following effects:

- irritation of mouth, throat and digestive tract

Inhalation

Inhalation: Inhalation may have the following effects:

- irritation of nose, throat and respiratory tract

Target Organs

Target Organs: - Eye

- Respiratory System

- Skin

Environmental effects

Carcinogenicity

Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA

4. FIRST AID MEASURES

Section 4 First Aid Measures

Inhalation

Inhalation: Remove from exposure. If there is difficulty in breathing, give oxygen. Seek medical attention if symptoms persist.

Skin contact

Skin contact: Wash out eye with plenty of water. Continue washing for at least 15 minutes. Obtain medical attention if blistering occurs or redness persists.

Eye contact

Eye contact: Immediately flush the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Ingestion

Ingestion: Wash out mouth with water. Have victim drink 1-3 glasses of water to dilute stomach contents. Induce vomiting. Obtain medical attention immediately Never administer anything by mouth if a victim is losing conciousness, is unconcious or is convulsing.

Notes to physician

Notes to physician -- treatment

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Section 5 Fire Fighting Measures

Flash Point

Flash point Nonflammable

Auto Ignition Temperature

Lower Explosive Limit

Upper Explosive Limit

Minimum ignition energy of dust cloud – indicate cloud vs layer

Thermal Decomposition

Suitable extinguishing media

Suitable extinguishing media: Not readily combustible.

Select extinguishing agent appropriate to other materials involved.

Unsuitable extinguishing media

Specific hazards during fire fighting

Specific hazards during fire fighting: No specific measures necessary.

Special protective equipment for fire fighters

Special protective equipment for fire-fighters: Wear full protective clothing and self-contained breathing apparatus.

Further information

Further information: This product may give rise to hazardous vapors in a fire.

Other fire safety data

6. ACCIDENTAL RELEASE MEASURES

Section 6 Accidental Release Measures

Personal precautions

Personal precautions

Wear appropriate protective clothing.

Environmental precautions

Environmental precautions

Prevent the material from entering drains or water courses.

Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Methods for cleaning up

Methods for cleaning up

Contain and absorb using earth, sand or other inert material.

Transfer into suitable containers for recovery or disposal.

Additional advice

Possibly add reference to Sec 15

7. Handling and storage

Section 7 Handling and Storage

Handling

Handling

Use in well ventilated area. Avoid inhaling vapor. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.

Further information on storage conditions

Further information on storage conditions: No special precautions necessary.

Advice on protection against fire and explosion

Storage

Storage

Storage conditions: Store in original containers. Storage area should be: - cool - dry - well ventilated - out of direct sunlight - away from incompatible materials

Storage period

Storage temperature

Other data

Other handling and storage

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Section 8 Exposure Controls/Personal Protection

Exposure guidelines

Exposure limit values

Component	Regulation	Type of listing	Value
Sulfuric acid	Rohm and Haas	TWA	1 mg/m3
	Rohm and Haas	STEL	2 mg/m3
	ACGIH	TWA	1 mg/m3
	ACGIH	STEL	3 mg/m3
	OSHA_TRANS	PEL	1 mg/m3

Eye Protection

Eye protection: Chemical goggles.

Hand Protection

Hand protection: Nitrile rubber gloves. Other chemical resistant gloves may be recommended by your safety professional.

Skin & Body Protection

Skin and body protection: Normal work wear.

Respiratory Protection

Respiratory protection: Respiratory protection not normally required. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Hygienic Practices

General Protective Measures

Engineering Controls

Engineering measures: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Section 9 Physical and Chemical Properties

Appearance

Form

Form	liquid

Color

Color	Clear - Pale Blue

Odor

Odor	Odorless

pH

pH	<1.1

Boiling Point

Boiling point/range	100 °C (212 °F)

Freezing Point

Flash Point

Flash point	Nonflammable

Auto Ignition Temperature

Lower Explosive Limit - Dust

Upper Explosive Limit - Dust

Lower Explosive Limit

Upper Explosive Limit

Vapor Pressure

Vapor pressure Not applicable.

Relative Vapor Density

Relative vapor density Heavier than air.

Solubility in Water

Water solubility completely soluble

Solubility (quantitative)

Solubility (qualitative)

Partitioning Coefficient

Relative density (Specific Gravity)

Relative density 1.01

Density

Bulk Density

Molecular Weight

Viscosity (Dynamic)

Viscosity (Kinematic)

Evaporation rate

Evaporation rate Slower than ether

Surface Tension

% Volatility

VOC

VOC's Not applicable

General Remarks

Disclaimer

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Section 10 Stability and Reactivity

Hazardous reactions

Hazardous reactions Stable under normal conditions.

Conditions to avoid

Conditions to avoid

- Exposure to direct sunlight

Materials to avoid (InCompatibility)

Materials to avoid - Strong bases

Hazardous Decomp prods

Hazardous decomposition products - carbon monoxide - carbon dioxide - oxides of sulfur

Polymerization

Polymerization Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

Section 11 Toxicological Information

Acute Oral Tox

Acute Inhalation tox

Acute Dermal tox

Acute tox other route

Skin irritation

Eye irritation

Sensitization

Respiratory system irritation

Chronic/sub-chronic tox

Carcinogenicity

Assessment Carcinogenicity

Toxicity to reproduction

Assessment Toxicity to Reproduction

Teratogenecity

Assessment Teratogenicity

Genetic Toxicity in-vitro

Genetic Toxicity in-Vivo

Assessment Mutagenicity

Epidemiology

Further Information

Acute Oral Tox

Component: **Copper Sulfate**

Acute oral toxicity LD50 rat 300 mg/kg

Component: **Sulfuric acid**

Acute oral toxicity LD50 rat 2,140 mg/kg

Acute tox other route

Skin irritation

Eye irritation

Sensitization

Respiratory system irritation

Chronic/sub-chronic tox

Carcinogenicity

Assessment Carcinogenicity

Toxicity to reproduction

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Genetic Toxicity in-vitro

Genetic Toxicity in-Vivo

Assessment Mutagenicity

Epidemiology

Further Information

12. ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

Section 12 Ecological Information

Ecotoxicity Effects

Chemical Fate Information

Additional remarks

Copper Sulfate

Ecotoxicity Effects

Ecotoxicity effects

Toxicity to fish

Toxicity to fish	LC50 - Salmon 96 h
	286 mg/l

Toxicity to algae

Toxicity to bacteria

Toxicity to aquatic inverterbrates

Chemical Fate Information

Additional remarks

Sulfuric acid

Ecotoxicity Effects

Ecotoxicity effects

Toxicity to fish

Toxicity to fish TLm Mosquito fish (Gambusia affinis) 48 h

48 mg/l

Toxicity to algae

Toxicity to bacteria

Toxicity to aquatic inverterbrates

Chemical Fate Information

Additional remarks

Ecotoxicity Effects

Chemical Fate Information

Additional remarks

13. DISPOSAL CONSIDERATIONS

Environmental precautions

Environmental precautions: Prevent the material from entering drains or water courses.

Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Section 13 Disposal Considerations

Waste Classification

Disposal

Dispose of in accordance with all applicable local and national regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Labels should not be removed from containers until they have been cleaned. Empty containers may contain hazardous residues. Dispose of containers with care.

Contaminated packaging

EU waste code

14. TRANSPORT INFORMATION

US DOT Information

DOT

Not regulated for transport

IMDG (International Ocean)

IMO/IMDG

Not regulated (Not dangerous for transport)

ADR(EU Surface)

15. REGULATORY INFORMATION

Section 15 Regulatory Information

Workplace Classification

Canadian WHMIS Classification

EU Label Phrases

SARA 311/312

SARA Title III: Section 311/312 Categorizations (40CFR370): Immediate (acute) Health Hazard

SARA 313

SARA Title III: Section 313 Information (40CFR372)

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

TSCA 12b

U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D):

U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

This product does not contain any substances subject to Section 12(b) export notification.

CERCLA

TSCA

US. Toxic Substances Control Act (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

National

Regional (States)

California (Proposition 65)

This product contains a component or components known to the state of California to cause cancer and/or reproductive harm.

Components:	1,4-dioxane	123-91-1
	ethylene oxide; oxirane	75-21-8

16. OTHER INFORMATION

Hazard Rating

	Health	Fire	Reactivity	
NFPA	1	0	0	

EU Label Phrases

Legend

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
BAc	Butyl acetate
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit

STEL	Short Term Exposure Limit (STEL):
TLV	Threshold Limit Value
TWA	Time Weighted Average (TWA):
|	Bar denotes a revision from prior MSDS.

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.

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