

Classified According to OSHA Hazard Communication Standard (HCS)

CTION 1: Identification	
1.1. Product Identifier	
Trade Name or Designation:	Concentrated Reagent
	Product Number: RFO82501
Other Iden	tifying Product Numbers: RF082501-1A, RF082501-4A
1.2. Recommended Use and Res	trictions on Use
1.2. Recommended Use and Res General Laboratory Reagent	strictions on Use
General Laboratory Reagent	
General Laboratory Reagent	e Safety Data Sheet
General Laboratory Reagent	e Safety Data Sheet Company: FOCUSTRONIC LIMITED
General Laboratory Reagent	e Safety Data Sheet Company: FOCUSTRONIC LIMITED Address: Room 2401, HK Worsted Mills Ind. Bldg.
General Laboratory Reagent	e Safety Data Sheet Company: FOCUSTRONIC LIMITED Address: Room 2401, HK Worsted Mills Ind. Bidg. 31-39 Wo Tong Tsui Street
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General Laboratory Reagent	e Safety Data Sheet Company: FOCUSTRONIC LIMITED Address: Room 2401, HK Worsted Mills Ind. Bldg. 31-39 Wo Tong Tsui Street Kwai Chung, N.T. Hong Kong Telephone: +852 2480 4458

# SECTION 2: Hazard(s) Identification

### 2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

		Hazard	
Hazard Class	Category	Statements	Precautionary Statements:
Hazardous to the Aquatic Environment (Acute)	Category 3	H402	P273, P501

## 2.2. GHS Label Elements

Pictograms:

Signal Word:



#### Hazard Statements:

Hazard Number	Hazard Statement
H402	Harmful to aquatic life.

#### **Precautionary Statements:**

Precautionary Number	Precautionary Statement
P273	Avoid release to the environment.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

#### 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

# SECTION 3: Composition / Information on Ingredients

#### 3.1. Components of Substance or Mixture

Chemical Na	ne Formula Molecular Weight	t CAS Number Weigh	it%
Trade Secret		100	0.00

## SECTION 4: First-Aid Measures

#### 4.1. General First Aid Information

Eye Contact:May cause slight irritation.Inhalation:Not expected to require first aid. If necessary, remove to fresh air.Skin Contact:May cause irritation, redness, and pain.

Ingestion: Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

Does not present any significant health hazards. May irritate eyes and skin. Wash areas of contact with water. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause irritation, redness, and pain.

## 4.3. Medical Attention or Special Treatment Needed

Not expected to require special treatment.

## SECTION 5: Fire-Fighting Measures

## 5.1. Extinguishing Media

Dry chemical, foam, or carbon dioxide. Water is acceptable to use on these solutions due to the weak concentrations of acid involved.

#### 5.2. Specific Hazards Arising from the Substance or Mixture

Contact with most metals causes formation of flammable and explosive hydrogen gas. However, the risk is reduced due to the weaker concentration of Sulfuric Acid present.



#### 5.3. Special Protective Equipment for Firefighters

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

#### **SECTION 6: Accidental Release Measures**

## 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

#### 6.2. Cleanup and Containment Methods and Materials

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Wash site with soda ash solution. Always dispose of in accordance with local regulations.

# SECTION 7: Handling and Storage

## 7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Do not mix with bases.

## SECTION 8: Exposure Controls / Personal Protection

#### 8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Trade Secret	TWA	USA	1 mg/m³ TWA	U.S OSHA - Final PELs - Time Weighted
				Averages (TWAs)
Trade Secret	TLV-TWA	USA	0.2 mg/m <sup>3</sup> TWA (thoracic	ACGIH - Threshold Limit Values - Time
			fraction)	Weighted Averages (TLV-TWA)

#### 8.2. Exposure Controls

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

#### 8.3. Personal Protective Equipment

Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.



# SECTION 9: Physical and Chemical Properties

# 9.1. Basic Physical and Chemical Properties

Appearance:	Clear, Colorless
Physical State:	Liquid
Odor:	Odorless
Odor Threshold:	Data not available.
pH:	<2
Melting/Freezing Point:	Appoximately 0°C
Initial Boiling Point/Range:	Approximately 100°C - Approximately 100°C
Flash Point:	Data not available.
Evaporation Rate:	Data not available.
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Vapor Pressure:	Data not available.
Vapor Density:	Data not available.
Relative Density:	1.00
Solubility:	Miscible
Partition Coefficient:	Data not available.
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
Viscosity:	Data not available.
Explosive Properties:	Data not available.
Oxidizing Properties:	Data not available.

# SECTION 10: Stability and Reactivity

# 10.1. Reactivity and Chemical Stability

Data not available.

#### **10.2. Possibility of Hazardous Reactions**

Data not available.

## 10.3. Conditions to Avoid and Incompatible Materials

Organics, chlorates, carbides, fulminates, picrates, alkalines, reducing agents, nitrates, Acetic Acid, oxidizing agents, metals.

## **10.4. Hazardous Decomposition Products**

Will not occur.



# SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

#### Acute Toxicity - Dermal Exposure:

Not applicable.

## Acute Toxicity - Inhalation Exposure:

Not applicable.

#### Acute Toxicity - Other Information:

LD50, Oral, Rat: 2140 mg/kg (Sulfuric Acid), details of toxic effects not reported other than lethal dose value. LC50, Inhalation, Rat: (Sulfuric

Acid) 510 mg/m3/2H, No toxic effect noted.

#### Skin Corrosion and Irritation:

Not applicable.

#### Serious Eye Damage and Irritation:

Not applicable.

# **Respiratory Sensitization:**

Not applicable.

# Skin Sensitization:

Not applicable.

### Germ Cell Mutagenicity:

Not applicable.

#### Carcinogenicity:

Not applicable.

### **Reproductive Toxicity:**

Not applicable.

#### Specific Target Organ Toxicity from Single Exposure:

Not applicable.

#### Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

#### Aspiration Hazard:

Not applicable.

#### Additional Toxicology Information:

Data not available.

## **SECTION 12: Ecological Information**

## 12.1. Ecotoxicity

Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

## 12.2. Persistence and Degradability

Data not available.



- **12.3. Bioaccumulative Potential** Data not available.
- 12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects Data not available.

SECTION 13: Disposal Considerations

#### 13.1. Waste Treatment Methods

Data not available.

# **SECTION 14: Transportation Information**

14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

14.2. Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.



14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG Regulations.

# SECTION 15: Regulatory Information

#### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

# 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Trade Secret Ingredient (CAS # Trade Secret): 1000 lb EPCRA RQ

Trade Secret Ingredient (CAS # Trade Secret): 1000 lb TPQ

#### 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Trade Secret Ingredient (CAS # Trade Secret): 1000 lb final RQ; 454 kg final RQ

### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Trade Secret Ingredient (CAS # Trade Secret): 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

#### 15.5. Massachusetts Right-to-Know Substance List

Trade Secret Ingredient (CAS # Trade Secret): Extraordinarily hazardous

## 15.6. Pennsylvania Right-to-Know Hazardous Substances

Trade Secret Ingredient (CAS # Trade Secret): Environmental hazard

Trade Secret Ingredient (CAS # Trade Secret): Present

Trade Secret Ingredient (CAS # Trade Secret): Present

## 15.7. New Jersey Worker and Community Right-to-Know Components

Trade Secret Ingredient (CAS # Trade Secret): carcinogen; corrosive; reactive - second degree

Trade Secret Ingredient (CAS # Trade Secret): sn 1761

Trade Secret Ingredient (CAS # Trade Secret): SN 1761 500 lb TPQ

# 15.8. California Proposition 65

Trade Secret Ingredient (CAS # Trade Secret): carcinogen, 3/14/2003

# 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Trade Secret Ingredient (CAS # Trade Secret): Present (DSL)

Trade Secret Ingredient (CAS # Trade Secret): Present (DSL)



## 15.10. United States of America Toxic Substances Control Act (TSCA) List

Trade Secret Ingredient (CAS # Trade Secret): Present

Trade Secret Ingredient (CAS # Trade Secret): Present

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European

List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

# **SECTION 16: Other Information**

## 16.1. Full Text of Hazard Statements and Precautionary Statements

Harmful to aquatic life.

Avoid release to the environment.

Dispose of contents in accordance with local, state, federal and international regulations.

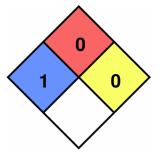
#### 16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class:	Not Applicable.
Physical Hazards Not Otherwise Classified (PHNOC):	Not Applicable.
Health Hazards Not Otherwise Classified (HHNOC):	Not Applicable.
Biohazardous Infectious Materials Hazard Class:	Not Applicable.

## 16.3. National Fire Protection Association (NFPA) Rating

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Health:	1
Flammability:	0
Reactivity:	0
Special Hazard:	



#### 16.4. Document Revision

Last Revision Date: 2018-10-25

#### DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present а significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or specifically addressed herein which other means may present hazards not and must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. warranty, No expressed or implied, is made and FOCUSTRONIC LIMITED assumes no legal responsibility or liability whatsoever resulting from its use.