

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product Identifiers**

Product Name: Stop Solution (contains Sulfuric Acid)  
Catalog Number: DY994

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified Uses: For research use only.

**1.3 Details of the supplier of the safety data sheet**

|                 |   |   |   |
|-----------------|---|---|---|
| Company:        | R&D Systems, Inc. a Bio-Techne Brand<br>614 McKinley Place NE<br>Minneapolis, MN 55413, USA | Telephone:<br>Fax:<br>Internet:<br>Email address: | 1-800-343-7475<br>1-612-656-4400<br>www.rndsystems.com<br>info@bio-techne.com |
| Canada:         | 461 North Service Rd West<br>Unit B37<br>Oakville, ON L6M 2V5                               | Telephone:<br>Fax:<br>Email address:              | 1-855-668-8722<br>902-827-6402<br>Canada.inquiries@bio-techne.com             |
| United Kingdom: | 19 Barton Lane<br>Abingdon Science Park<br>Abingdon, OX14 3NB                               | Telephone:<br>Fax:<br>Email address:              | 44 (0)1235 529449<br>44 (0)1235 533420<br>info.emea@bio-techne.com            |
| China:          | 1193 Changning Road<br>Unit 1901, Raffles Changning Office<br>Shanghai, China               | Telephone:<br>Fax:<br>Email address:              | 86-400-821-3475<br>76 (021)52371001<br>techsupport.cn@bio-techne.com          |

**1.4 Emergency Telephone Number**

Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-5500  
Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]

Skin Corrosion/Irritation - Category 2  
Serious eye damage/eye irritation - Category 2A

**2.2 Label Elements**

Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]

Pictogram(s):



Signal Word: Warning

Hazard Statement(s):

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

Precautionary Statement(s):

P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+352 IF ON SKIN: Wash with plenty of soap and water.  
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 Specific treatment (see Section 4).  
P332+313 If skin irritation occurs: Get medical advice/attention.  
P337+313 If eye irritation persists: Get medical advice/attention.  
P362+364 Take off contaminated clothing and wash it before reuse.

**2.3 Other Hazards - None**

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

Not applicable.

**3.2 Mixtures**

| Component     | CAS No.   | EC No.    | Index No.    | Classification | Conc.    |
|---------------|-----------|-----------|--------------|----------------|----------|
| Sulfuric Acid | 7664-93-9 | 231-639-5 | 016-020-00-8 | H315 , H319    | = 9.8 %  |
| Water         | 7732-18-5 | 231-791-2 |              |                | = 90.2 % |

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#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures

###### General Advice

Consult a doctor and show this safety data sheet.

###### If Inhaled

Move person into fresh air. If not breathing, give artificial respiration. Consult a physician. Show this MSDS.

###### In Case of Skin Contact

Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.

###### In Case of Eye Contact

Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.

###### If Swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician. Show this MSDS.

##### 4.2 Most important symptoms and effects, both acute and delayed

See Section 11.

##### 4.3 Indication of immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

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#### 5. FIRE-FIGHTING MEASURES

##### 5.1 Extinguishing Media

###### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### 5.2 Special hazards arising from the substance or mixture

In case of fire, toxic and corrosive gases may be formed.

##### 5.3 Precautions for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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#### 6. ACCIDENTAL RELEASE MEASURES

##### 6.1 Personal precautions, protective equipment and emergency procedures

Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

##### 6.2 Environmental precautions

Keep away from drains.

##### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

##### 6.4 Reference to other sections

For required PPE see section 8. For disposal see section 13.

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#### 7. HANDLING AND STORAGE

##### 7.1 Precautions for safe handling

Avoid inhalation of vapor or mist. Use normal measures for preventive fire protection.

##### 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

##### 7.3 Specific end uses

Not applicable.

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#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### 8.1 Control parameters

###### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

##### 8.2 Exposure controls

###### Appropriate Engineering Controls

Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.

###### Personal Protective Equipment

###### Eye / Face Protection

Wear approved safety goggles.

### Skin Protection

Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Body Protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved. Wear suitable protective clothing as protection against splashing or contamination.

### Respiratory Protection

In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|   |                    |                                  |                    |
|---|--------------------|----------------------------------|--------------------|
| <b>Appearance</b>                                     | Colorless liquid   | <b>Vapor Pressure</b>            | No data available. |
| <b>Odor</b>   | Pungent            | <b>Vapor Density</b>             | No data available. |
| <b>Odor Threshold</b>                                 | No data available. | <b>Relative Density</b>          | No data available. |
| <b>pH</b>   | ~1                 | <b>Solubility</b>                | Soluble            |
| <b>Melting / Freezing Point</b>                       | No data available. | <b>Partition Coefficient</b>     | No data available. |
| <b>Boiling Point / Range</b>                          | No data available. | <b>Auto ignition Temperature</b> | No data available. |
| <b>Flash Point</b>                                    | No data available. | <b>Decomposition Temperature</b> | No data available. |
| <b>Evaporation Rate</b>                               | No data available. | <b>Viscosity</b>                 | No data available. |
| <b>Flammability (Solid, Gas)</b>                      | No data available. | <b>Explosive Properties</b>      | No data available. |
| <b>Upper / Lower Flammability or Explosive Limits</b> | No data available. | <b>Oxidizing Properties</b>      | No data available. |

### 9.2 Other safety information

No data available.

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Contact with metals produces highly flammable hydrogen gas. Addition of water liberates excessive heat.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4 Conditions to avoid

Bases, Halides, Metals, Alkalis, Acetonitrile.

### 10.5 Incompatible materials

Most metals, oxidizers, reducers, bases, metal carbonates, cyanides, sulphides, carbides, oxides, metal acetylides, hydrides, halogens, organic or combustible materials, perchlorates, acetonitrile, permanganates, alcohols, picrates.

### 10.6 Hazardous decomposition products

Products formed under fire conditions: oxides of Sulphur, hydrogen gas.

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Toxicity

Can cause severe burns upon contact while the vapors or mist are corrosive and can cause severe irritation or damage to the nose, throat and lungs. Ingestion of this product causes pain, nausea and vomiting and may be fatal if large doses are ingested.

#### Skin Corrosion / Irritation

Can cause severe burns.

#### Serious Eye Damage / Irritation

Can cause severe burns.

#### Respiratory or Skin Sensitization

Classified based on available data

#### Germ Cell Mutagenicity

Classified based on available data

#### Carcinogenicity

Classified based on available data

#### Reproductive Toxicity

Classified based on available data

#### Specific Target Organ Toxicity - Single Exposure

Classified based on available data

#### Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data

#### **Aspiration Hazard**

Can cause severe burns.

#### **Symptoms / Routes of Exposure**

Inhalation: Harmful if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach. Causes burns.

Skin: Causes skin irritation / causes burns.

Eyes: Causes serious eye irritation / causes burns.

Delayed / Immediate Effects: Repeated skin contact with this product may lead to dermatitis while repeated inhalation may cause bronchitis, conjunctivitis, respiratory infections, emphysema and digestive disturbances. May cause erosion and discoloration of the teeth.

#### **Additional Information**

Classified based on available data

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## **12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

This product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

### **12.2 Persistence and degradability**

No data available.

### **12.3 Bio accumulative potential**

No data available.

### **12.4 Mobility in soil**

No data available.

### **12.5 Results of PBT and vPvB assessment**

No data available.

### **12.6 Other adverse effects**

No data available.

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## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods**

#### **Product**

Dispose of waste in accordance to applicable national, regional, or local regulations.

#### **Contaminated Packaging**

Dispose in the same manner as unused product.

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## **14. TRANSPORT INFORMATION**

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.

### **14.1 UN-Number**

UN2796

### **14.2 UN proper shipping name**

Battery fluid, acid or Sulfuric acid with not more than 51 percent acid

### **14.3 Transport hazard class(es)**

8

### **14.4 Packaging group**

II

### **14.5 Environmental hazards**

This product is not classified as environmentally hazardous according to the UN Model Regulations, nor a marine pollutant according to the IMDG Code.

### **14.6 Special precautions for users**

No data available.

#### **Additional Transport Information**

No data available.

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## **15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**TSCA (Toxic Substances Control Act):** On TSCA Inventory

**SARA 313:** Not applicable.

**SARA 311/312:** Acute health hazard

**CERCLA Reportable Quantity:** 1000 lbs.

**California Proposition 65:**

Sulfuric Acid Not applicable.

**15.2 Chemical safety assessment**

A Chemical Safety Assessment has not been made for this product.

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**16. OTHER INFORMATION**

**Further Information**

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This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

End of safety data sheet.