

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

### 1.1 Product Identifiers

Product Name: Proteome Profiler Mouse Adipokine Array Kit  
Catalog Number: ARY013  
Components: Human Soluble Receptor Array Non-Hematopoietic Panel  
Array Buffer 4 (contains Proclin 300 Mixture)  
Array Buffer 6 (contains Proclin 300 Mixture)  
Wash Buffer Concentrate (contains Proclin 300 Mixture)  
Detection Antibody Cocktail, Mouse Adipokine Array  
Streptavidin-HRP (contains Proclin 300 Mixture)  
Chemi Reagent 1 (contains Boric Acid)  
Chemi Reagent 2 (contains Boric Acid)

### 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:     | 1-800-343-7475                  |
|                 |                                                                                             | Fax:           | 1-612-656-4400                  |
|                 |                                                                                             | Internet:      | www.rndsystems.com              |
|                 |                                                                                             | Email address: | info@bio-techne.com             |
| Canada:         | 461 North Service Rd West<br>Unit B37<br>Oakville, ON L6M 2V5                               | Telephone:     | 1-855-668-8722                  |
|                 |                                                                                             | Fax:           | 902-827-6402                    |
|                 |                                                                                             | Email address: | Canada.inquiries@bio-techne.com |
| United Kingdom: | 19 Barton Lane<br>Abingdon Science Park<br>Abingdon, OX14 3NB                               | Telephone:     | 44 (0)1235 529449               |
|                 |                                                                                             | Fax:           | 44 (0)1235 533420               |
|                 |                                                                                             | Email address: | info.emea@bio-techne.com        |
| China:          | 1193 Changning Road<br>Unit 1901, Raffles Changning Office<br>Shanghai, China               | Telephone:     | 86-400-821-3475                 |
|                 |                                                                                             | Fax:           | 76 (021)52371001                |
|                 |                                                                                             | Email address: | 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

See additional safety data sheets.

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

### 1.1 Product Identifiers

Product Name: Array Buffer 4 (contains Proclin 300 Mixture)

### 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:     | 1-800-343-7475                                                                       |
|                 |                                                                                             | Fax:           | 1-612-656-4400                                                                       |
|                 |                                                                                             | Internet:      | <a href="http://www.rndsystems.com">www.rndsystems.com</a>                           |
|                 |                                                                                             | Email address: | <a href="mailto:info@bio-techne.com">info@bio-techne.com</a>                         |
| Canada:         | 461 North Service Rd West<br>Unit B37<br>Oakville, ON L6M 2V5                               | Telephone:     | 1-855-668-8722                                                                       |
|                 |                                                                                             | Fax:           | 902-827-6402                                                                         |
|                 |                                                                                             | Email address: | <a href="mailto:Canada.inquiries@bio-techne.com">Canada.inquiries@bio-techne.com</a> |
| United Kingdom: | 19 Barton Lane<br>Abingdon Science Park<br>Abingdon, OX14 3NB                               | Telephone:     | 44 (0)1235 529449                                                                    |
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| China:          | 1193 Changning Road<br>Unit 1901, Raffles Changning Office<br>Shanghai, China               | Telephone:     | 86-400-821-3475                                                                      |
|                 |                                                                                             | Fax:           | 76 (021)52371001                                                                     |
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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]

Sensitization, skin - Category 1

### 2.2 Label Elements

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

Pictogram(s):



Signal Word: Warning

Hazard Statement(s):

H317 May cause an allergic skin reaction.

Precautionary Statement(s):

|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| P261      | Avoid breathing dust/fumes/gas/mist/vapors/spray.                          |
| P272      | Contaminated work clothing should not be allowed out of the workplace.     |
| P280      | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+352  | IF ON SKIN: Wash with plenty of soap and water.                            |
| P333+313  | If skin irritation or rash occurs: Get medical advice/attention.           |
| P362+P364 | 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. |
|------------------------------------------------|------------|--------|-----------|----------------|-------|
| Proclin 300 Mixture <0.1% (active ingredients) | 96118-96-6 |        |           | H317           |       |

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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

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

#### In Case of Skin Contact

Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

#### In Case of Eye Contact

Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

#### If Swallowed

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

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

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

### 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 combustion, may emit toxic fumes.

### 5.3 Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES

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

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

### 6.2 Environmental precautions

Do not let product enter drains.

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

Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.

### 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, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

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

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.

### 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 in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

#### Personal Protective Equipment

**Eye / Face Protection**

Use appropriate safety glasses.

**Skin Protection**

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

**Body Protection**

Wear appropriate protective clothing.

**Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

|                                                       |                                          |                                  |                    |
|-------------------------------------------------------|------------------------------------------|----------------------------------|--------------------|
| <b>Appearance</b>                                     | Lyophilized white powder or clear liquid | <b>Vapor Pressure</b>            | No data available. |
| <b>Odor</b>                                           | Little to none                           | <b>Vapor Density</b>             | No data available. |
| <b>Odor Threshold</b>                                 | No data available.                       | <b>Relative Density</b>          | No data available. |
| <b>pH</b>                                             | No data available.                       | <b>Solubility</b>                | No data available. |
| <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**

Stable under recommended transport or storage conditions.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

**10.4 Conditions to avoid**

Heat, moisture.

**10.5 Incompatible materials**

Strong acids/alkalis, strong oxidizing/reducing agents.

**10.6 Hazardous decomposition products**

Strong acids/alkalis, strong oxidizing/reducing agents.

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**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute Toxicity**

Classified based on available data.

**Skin Corrosion / Irritation**

Classified based on available data.

**Serious Eye Damage / Irritation**

Classified based on available data.

**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**

Classified based on available data.

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

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

#### **Additional Information**

Classified based on available data

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## **12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

No data available.

### **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**

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

#### **Contaminated Packaging**

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

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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**

Does not meet the criteria for classification as hazardous for transport.

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

Does not meet the criteria for classification as hazardous for transport.

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

Does not meet the criteria for classification as hazardous for transport.

### **14.4 Packaging group**

Does not meet the criteria for classification as hazardous for transport.

### **14.5 Environmental hazards**

Does not meet the criteria for classification as hazardous for transport.

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

Does not meet the criteria for classification as hazardous for transport.

#### **Additional Transport Information**

Does not meet the criteria for classification as hazardous for transport.

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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):** Not applicable.

**SARA 313:** Not applicable.

**SARA 311/312:** Not applicable.

**CERCLA Reportable Quantity:** Not applicable.

**California Proposition 65:** 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.

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

### 1.1 Product Identifiers

Product Name: Array Buffer 6 (contains Proclin 300 Mixture)

### 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:     | 1-800-343-7475                  |
|                 |                                                                                             | Fax:           | 1-612-656-4400                  |
|                 |                                                                                             | Internet:      | www.rndsystems.com              |
|                 |                                                                                             | Email address: | info@bio-techne.com             |
| Canada:         | 461 North Service Rd West<br>Unit B37<br>Oakville, ON L6M 2V5                               | Telephone:     | 1-855-668-8722                  |
|                 |                                                                                             | Fax:           | 902-827-6402                    |
|                 |                                                                                             | Email address: | Canada.inquiries@bio-techne.com |
| United Kingdom: | 19 Barton Lane<br>Abingdon Science Park<br>Abingdon, OX14 3NB                               | Telephone:     | 44 (0)1235 529449               |
|                 |                                                                                             | Fax:           | 44 (0)1235 533420               |
|                 |                                                                                             | Email address: | info.emea@bio-techne.com        |
| China:          | 1193 Changning Road<br>Unit 1901, Raffles Changning Office<br>Shanghai, China               | Telephone:     | 86-400-821-3475                 |
|                 |                                                                                             | Fax:           | 76 (021)52371001                |
|                 |                                                                                             | Email address: | 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]

Sensitization, skin - Category 1

### 2.2 Label Elements

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

Pictogram(s):



Signal Word: Warning

Hazard Statement(s):

H317 May cause an allergic skin reaction.

Precautionary Statement(s):

|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| P261      | Avoid breathing dust/fumes/gas/mist/vapors/spray.                          |
| P272      | Contaminated work clothing should not be allowed out of the workplace.     |
| P280      | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+352  | IF ON SKIN: Wash with plenty of soap and water.                            |
| P333+313  | If skin irritation or rash occurs: Get medical advice/attention.           |
| P362+P364 | 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. |
|------------------------------------------------|------------|--------|-----------|----------------|-------|
| Proclin 300 Mixture <0.1% (active ingredients) | 96118-96-6 |        |           | H317           |       |

---

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General Advice

Consult a doctor and show this safety data sheet.

#### If Inhaled

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

#### In Case of Skin Contact

Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

#### In Case of Eye Contact

Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

#### If Swallowed

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

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

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

### 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.

---

## 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 combustion, may emit toxic fumes.

### 5.3 Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

---

## 6. ACCIDENTAL RELEASE MEASURES

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

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

### 6.2 Environmental precautions

Do not let product enter drains.

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

Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.

### 6.4 Reference to other sections

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

---

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

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

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.

### 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 in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

#### Personal Protective Equipment



**Eye / Face Protection**

Use appropriate safety glasses.

**Skin Protection**

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

**Body Protection**

Wear appropriate protective clothing.

**Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

|                                                       |                                          |                                  |                    |
|-------------------------------------------------------|------------------------------------------|----------------------------------|--------------------|
| <b>Appearance</b>                                     | Lyophilized white powder or clear liquid | <b>Vapor Pressure</b>            | No data available. |
| <b>Odor</b>                                           | Little to none                           | <b>Vapor Density</b>             | No data available. |
| <b>Odor Threshold</b>                                 | No data available.                       | <b>Relative Density</b>          | No data available. |
| <b>pH</b>                                             | No data available.                       | <b>Solubility</b>                | No data available. |
| <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**

Stable under recommended transport or storage conditions.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

**10.4 Conditions to avoid**

Heat, moisture.

**10.5 Incompatible materials**

Strong acids/alkalis, strong oxidizing/reducing agents.

**10.6 Hazardous decomposition products**

Strong acids/alkalis, strong oxidizing/reducing agents.

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**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute Toxicity**

Classified based on available data.

**Skin Corrosion / Irritation**

Classified based on available data.

**Serious Eye Damage / Irritation**

Classified based on available data.

**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**

Classified based on available data.

**Symptoms / Routes of Exposure**

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

**Additional Information**

Classified based on available data

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**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

No data available.

**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**

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

**Contaminated Packaging**

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

---

**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**

Does not meet the criteria for classification as hazardous for transport.

**14.2 UN proper shipping name**

Does not meet the criteria for classification as hazardous for transport.

**14.3 Transport hazard class(es)**

Does not meet the criteria for classification as hazardous for transport.

**14.4 Packaging group**

Does not meet the criteria for classification as hazardous for transport.

**14.5 Environmental hazards**

Does not meet the criteria for classification as hazardous for transport.

**14.6 Special precautions for users**

Does not meet the criteria for classification as hazardous for transport.

**Additional Transport Information**

Does not meet the criteria for classification as hazardous for transport.

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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):** Not applicable.

**SARA 313:** Not applicable.

**SARA 311/312:** Not applicable.

**CERCLA Reportable Quantity:** Not applicable.

**California Proposition 65:** 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.

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

**1.1 Product Identifiers**

Product Name: Wash Buffer Concentrate (contains Proclin 300 Mixture)

**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:     | 1-800-343-7475                                                                       |
|                 |                                                                                             | Fax:           | 1-612-656-4400                                                                       |
|                 |                                                                                             | Internet:      | <a href="http://www.rndsystems.com">www.rndsystems.com</a>                           |
|                 |                                                                                             | Email address: | <a href="mailto:info@bio-techne.com">info@bio-techne.com</a>                         |
| Canada:         | 461 North Service Rd West<br>Unit B37<br>Oakville, ON L6M 2V5                               | Telephone:     | 1-855-668-8722                                                                       |
|                 |                                                                                             | Fax:           | 902-827-6402                                                                         |
|                 |                                                                                             | Email address: | <a href="mailto:Canada.inquiries@bio-techne.com">Canada.inquiries@bio-techne.com</a> |
| United Kingdom: | 19 Barton Lane<br>Abingdon Science Park<br>Abingdon, OX14 3NB                               | Telephone:     | 44 (0)1235 529449                                                                    |
|                 |                                                                                             | Fax:           | 44 (0)1235 533420                                                                    |
|                 |                                                                                             | Email address: | <a href="mailto:info.emea@bio-techne.com">info.emea@bio-techne.com</a>               |
| China:          | 1193 Changning Road<br>Unit 1901, Raffles Changning Office<br>Shanghai, China               | Telephone:     | 86-400-821-3475                                                                      |
|                 |                                                                                             | Fax:           | 76 (021)52371001                                                                     |
|                 |                                                                                             | Email address: | <a href="mailto:techsupport.cn@bio-techne.com">techsupport.cn@bio-techne.com</a>     |

**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]

Sensitization, skin - Category 1

**2.2 Label Elements**

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

Pictogram(s):



Signal Word: Warning

Hazard Statement(s):

H317 May cause an allergic skin reaction.

Precautionary Statement(s):

|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| P261      | Avoid breathing dust/fumes/gas/mist/vapors/spray.                          |
| P272      | Contaminated work clothing should not be allowed out of the workplace.     |
| P280      | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+352  | IF ON SKIN: Wash with plenty of soap and water.                            |
| P333+313  | If skin irritation or rash occurs: Get medical advice/attention.           |
| P362+P364 | 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. |
|------------------------------------------------|------------|--------|-----------|----------------|-------|
| Proclin 300 Mixture <0.1% (active ingredients) | 96118-96-6 |        |           | H317           |       |

---

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General Advice

Consult a doctor and show this safety data sheet.

#### If Inhaled

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

#### In Case of Skin Contact

Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

#### In Case of Eye Contact

Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

#### If Swallowed

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

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

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

### 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.

---

## 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 combustion, may emit toxic fumes.

### 5.3 Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

---

## 6. ACCIDENTAL RELEASE MEASURES

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

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

### 6.2 Environmental precautions

Do not let product enter drains.

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

Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.

### 6.4 Reference to other sections

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

---

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

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

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.

### 7.3 Specific end uses

Not applicable.

---

## 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 in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

#### Personal Protective Equipment

**Eye / Face Protection**

Use appropriate safety glasses.

**Skin Protection**

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

**Body Protection**

Wear appropriate protective clothing.

**Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

|                                                       |                                          |                                  |                    |
|-------------------------------------------------------|------------------------------------------|----------------------------------|--------------------|
| <b>Appearance</b>                                     | Lyophilized white powder or clear liquid | <b>Vapor Pressure</b>            | No data available. |
| <b>Odor</b>                                           | Little to none                           | <b>Vapor Density</b>             | No data available. |
| <b>Odor Threshold</b>                                 | No data available.                       | <b>Relative Density</b>          | No data available. |
| <b>pH</b>                                             | No data available.                       | <b>Solubility</b>                | No data available. |
| <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.

---

**10. STABILITY AND REACTIVITY****10.1 Reactivity**

Stable under recommended transport or storage conditions.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

**10.4 Conditions to avoid**

Heat, moisture.

**10.5 Incompatible materials**

Strong acids/alkalis, strong oxidizing/reducing agents.

**10.6 Hazardous decomposition products**

Strong acids/alkalis, strong oxidizing/reducing agents.

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**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute Toxicity**

Classified based on available data.

**Skin Corrosion / Irritation**

Classified based on available data.

**Serious Eye Damage / Irritation**

Classified based on available data.

**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**

Classified based on available data.

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

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

#### **Additional Information**

Classified based on available data

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## **12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

No data available.

### **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.

---

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods**

#### **Product**

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

#### **Contaminated Packaging**

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

---

## **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**

Does not meet the criteria for classification as hazardous for transport.

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

Does not meet the criteria for classification as hazardous for transport.

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

Does not meet the criteria for classification as hazardous for transport.

### **14.4 Packaging group**

Does not meet the criteria for classification as hazardous for transport.

### **14.5 Environmental hazards**

Does not meet the criteria for classification as hazardous for transport.

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

Does not meet the criteria for classification as hazardous for transport.

#### **Additional Transport Information**

Does not meet the criteria for classification as hazardous for transport.

---

## **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):** Not applicable.

**SARA 313:** Not applicable.

**SARA 311/312:** Not applicable.

**CERCLA Reportable Quantity:** Not applicable.

**California Proposition 65:** Not applicable.

## **15.2 Chemical safety assessment**

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

---

## **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.



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

**1.1 Product Identifiers**

Product Name: Streptavidin-HRP (contains Proclin 300 Mixture)

**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:     | 1-800-343-7475                                                                       |
|                 |                                                                                             | Fax:           | 1-612-656-4400                                                                       |
|                 |                                                                                             | Internet:      | <a href="http://www.rndsystems.com">www.rndsystems.com</a>                           |
|                 |                                                                                             | Email address: | <a href="mailto:info@bio-techne.com">info@bio-techne.com</a>                         |
| Canada:         | 461 North Service Rd West<br>Unit B37<br>Oakville, ON L6M 2V5                               | Telephone:     | 1-855-668-8722                                                                       |
|                 |                                                                                             | Fax:           | 902-827-6402                                                                         |
|                 |                                                                                             | Email address: | <a href="mailto:Canada.inquiries@bio-techne.com">Canada.inquiries@bio-techne.com</a> |
| United Kingdom: | 19 Barton Lane<br>Abingdon Science Park<br>Abingdon, OX14 3NB                               | Telephone:     | 44 (0)1235 529449                                                                    |
|                 |                                                                                             | Fax:           | 44 (0)1235 533420                                                                    |
|                 |                                                                                             | Email address: | <a href="mailto:info.emea@bio-techne.com">info.emea@bio-techne.com</a>               |
| China:          | 1193 Changning Road<br>Unit 1901, Raffles Changning Office<br>Shanghai, China               | Telephone:     | 86-400-821-3475                                                                      |
|                 |                                                                                             | Fax:           | 76 (021)52371001                                                                     |
|                 |                                                                                             | Email address: | <a href="mailto:techsupport.cn@bio-techne.com">techsupport.cn@bio-techne.com</a>     |

**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]

Sensitization, skin - Category 1

**2.2 Label Elements**

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

Pictogram(s):



Signal Word: Warning

Hazard Statement(s):

H317 May cause an allergic skin reaction.

Precautionary Statement(s):

|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| P261      | Avoid breathing dust/fumes/gas/mist/vapors/spray.                          |
| P272      | Contaminated work clothing should not be allowed out of the workplace.     |
| P280      | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+352  | IF ON SKIN: Wash with plenty of soap and water.                            |
| P333+313  | If skin irritation or rash occurs: Get medical advice/attention.           |
| P362+P364 | 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. |
|------------------------------------------------|------------|--------|-----------|----------------|-------|
| Proclin 300 Mixture <0.1% (active ingredients) | 96118-96-6 |        |           | H317           |       |

---

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General Advice

Consult a doctor and show this safety data sheet.

#### If Inhaled

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

#### In Case of Skin Contact

Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

#### In Case of Eye Contact

Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

#### If Swallowed

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

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

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

### 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.

---

## 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 combustion, may emit toxic fumes.

### 5.3 Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

---

## 6. ACCIDENTAL RELEASE MEASURES

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

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

### 6.2 Environmental precautions

Do not let product enter drains.

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

Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.

### 6.4 Reference to other sections

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

---

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

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

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.

### 7.3 Specific end uses

Not applicable.

---

## 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 in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

#### Personal Protective Equipment

**Eye / Face Protection**

Use appropriate safety glasses.

**Skin Protection**

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

**Body Protection**

Wear appropriate protective clothing.

**Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

|                                                       |                                          |                                  |                    |
|-------------------------------------------------------|------------------------------------------|----------------------------------|--------------------|
| <b>Appearance</b>                                     | Lyophilized white powder or clear liquid | <b>Vapor Pressure</b>            | No data available. |
| <b>Odor</b>                                           | Little to none                           | <b>Vapor Density</b>             | No data available. |
| <b>Odor Threshold</b>                                 | No data available.                       | <b>Relative Density</b>          | No data available. |
| <b>pH</b>                                             | No data available.                       | <b>Solubility</b>                | No data available. |
| <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.

---

**10. STABILITY AND REACTIVITY****10.1 Reactivity**

Stable under recommended transport or storage conditions.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

**10.4 Conditions to avoid**

Heat, moisture.

**10.5 Incompatible materials**

Strong acids/alkalis, strong oxidizing/reducing agents.

**10.6 Hazardous decomposition products**

Strong acids/alkalis, strong oxidizing/reducing agents.

---

**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute Toxicity**

Classified based on available data.

**Skin Corrosion / Irritation**

Classified based on available data.

**Serious Eye Damage / Irritation**

Classified based on available data.

**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**

Classified based on available data.

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

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

#### **Additional Information**

Classified based on available data

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## **12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

No data available.

### **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.

---

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods**

#### **Product**

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

#### **Contaminated Packaging**

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

---

## **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**

Does not meet the criteria for classification as hazardous for transport.

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

Does not meet the criteria for classification as hazardous for transport.

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

Does not meet the criteria for classification as hazardous for transport.

### **14.4 Packaging group**

Does not meet the criteria for classification as hazardous for transport.

### **14.5 Environmental hazards**

Does not meet the criteria for classification as hazardous for transport.

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

Does not meet the criteria for classification as hazardous for transport.

#### **Additional Transport Information**

Does not meet the criteria for classification as hazardous for transport.

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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):** Not applicable.

**SARA 313:** Not applicable.

**SARA 311/312:** Not applicable.

**CERCLA Reportable Quantity:** Not applicable.

**California Proposition 65:** 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.

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

### 1.1 Product Identifiers

Product Name: Chemi Reagent 1 (contains Boric Acid)

### 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:     | 1-800-343-7475                                                                       |
|                 |                                                                                             | Fax:           | 1-612-656-4400                                                                       |
|                 |                                                                                             | Internet:      | <a href="http://www.rndsystems.com">www.rndsystems.com</a>                           |
|                 |                                                                                             | Email address: | <a href="mailto:info@bio-techne.com">info@bio-techne.com</a>                         |
| Canada:         | 21 Canmotor Avenue<br>Toronto, Ontario M8Z4E6<br>Canada                                     | Telephone:     | 1-855-668-8722                                                                       |
|                 |                                                                                             | Fax:           | 902-827-6402                                                                         |
|                 |                                                                                             | Email address: | <a href="mailto:Canada.inquiries@bio-techne.com">Canada.inquiries@bio-techne.com</a> |
| United Kingdom: | 19 Barton Lane<br>Abingdon Science Park<br>Abingdon, OX14 3NB                               | Telephone:     | 44 (0)1235 529449                                                                    |
|                 |                                                                                             | Fax:           | 44 (0)1235 533420                                                                    |
|                 |                                                                                             | Email address: | <a href="mailto:info.emea@bio-techne.com">info.emea@bio-techne.com</a>               |
| China:          | 1193 Changning Road<br>Unit 1901, Raffles Changning Office<br>Shanghai, China               | Telephone:     | 86-400-821-3475                                                                      |
|                 |                                                                                             | Fax:           | 76 (021)52371001                                                                     |
|                 |                                                                                             | Email address: | <a href="mailto:techsupport.cn@bio-techne.com">techsupport.cn@bio-techne.com</a>     |

### 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]

Toxic to Reproduction - Category 2

### 2.2 Label Elements

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

Pictogram(s):



Signal Word: Warning Hazard

Statement(s):

H361 Suspected of damaging fertility or the unborn child.

Precautionary Statement(s):

|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| P201      | Obtain special instructions before use.                                    |
| P202      | Do not handle until all safety precautions have been read and understood.  |
| P280      | Wear protective gloves/protective clothing/eye protection/face protection. |
| P308+P313 | If exposed or concerned: get medical advice/attention.                     |
| P405      | Store locked up.                                                           |
| P501      | Dispose of contents/container to an approved waste disposal plant.         |

### 2.3 Other Hazards

Absorbed through skin.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Boric Acid.

### 3.2 Mixtures

|            | Component                                                                                                                                                                                 | CAS No.    | EC No.    | Index No.    | Classification | Conc.  |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|--------------|----------------|--------|
|            | Boric Acid                                                                                                                                                                                | 10043-35-3 | 233-139-2 | 005-007-00-2 | H361           | < 2.0% |
| <b>4.</b>  | <b>FIRST AID MEASURES</b>                                                                                                                                                                 |            |           |              |                |        |
| <b>4.1</b> | <b>Description of first aid measures</b>                                                                                                                                                  |            |           |              |                |        |
|            | <b>General Advice</b>                                                                                                                                                                     |            |           |              |                |        |
|            | Consult a doctor and show this safety data sheet.                                                                                                                                         |            |           |              |                |        |
|            | <b>If Inhaled</b>                                                                                                                                                                         |            |           |              |                |        |
|            | Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.                                |            |           |              |                |        |
|            | <b>In Case of Skin Contact</b>                                                                                                                                                            |            |           |              |                |        |
|            | Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.                     |            |           |              |                |        |
|            | <b>In Case of Eye Contact</b>                                                                                                                                                             |            |           |              |                |        |
|            | Flush with copious amounts of water for at least 15 minutes. Remove contact lenses if easy to do so. Consult a doctor.                                                                    |            |           |              |                |        |
|            | <b>If Swallowed</b>                                                                                                                                                                       |            |           |              |                |        |
|            | Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.                    |            |           |              |                |        |
| <b>4.2</b> | <b>Most important symptoms and effects, both acute and delayed</b>                                                                                                                        |            |           |              |                |        |
|            | <b>Inhalation</b>                                                                                                                                                                         |            |           |              |                |        |
|            | Causes cough or sore throat.                                                                                                                                                              |            |           |              |                |        |
|            | <b>Skin</b>                                                                                                                                                                               |            |           |              |                |        |
|            | May be absorbed through injured skin. Causes redness.                                                                                                                                     |            |           |              |                |        |
|            | <b>Eyes</b>                                                                                                                                                                               |            |           |              |                |        |
|            | Causes eye redness or pain.                                                                                                                                                               |            |           |              |                |        |
|            | <b>Ingestion</b>                                                                                                                                                                          |            |           |              |                |        |
|            | Causes abdominal pain, convulsions, diarrhea, nausea, vomiting, and skin rash.                                                                                                            |            |           |              |                |        |
| <b>4.3</b> | <b>Indication of immediate medical attention and special treatment needed</b>                                                                                                             |            |           |              |                |        |
|            | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.                                                                                         |            |           |              |                |        |
| <b>5.</b>  | <b>FIRE-FIGHTING MEASURES</b>                                                                                                                                                             |            |           |              |                |        |
| <b>5.1</b> | <b>Extinguishing Media</b>                                                                                                                                                                |            |           |              |                |        |
|            | <b>Suitable extinguishing media</b>                                                                                                                                                       |            |           |              |                |        |
|            | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                                                  |            |           |              |                |        |
| <b>5.2</b> | <b>Special hazards arising from the substance or mixture</b>                                                                                                                              |            |           |              |                |        |
|            | Not combustible. Gives off irritation or toxic fumes or gases in a fire.                                                                                                                  |            |           |              |                |        |
| <b>5.3</b> | <b>Precautions for fire-fighters</b>                                                                                                                                                      |            |           |              |                |        |
|            | Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.                                                                           |            |           |              |                |        |
| <b>6.</b>  | <b>ACCIDENTIAL RELEASE MEASURES</b>                                                                                                                                                       |            |           |              |                |        |
| <b>6.1</b> | <b>Personal precautions, protective equipment and emergency procedures</b>                                                                                                                |            |           |              |                |        |
|            | Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas. |            |           |              |                |        |
| <b>6.2</b> | <b>Environmental precautions</b>                                                                                                                                                          |            |           |              |                |        |
|            | Do not let product enter drains.                                                                                                                                                          |            |           |              |                |        |
| <b>6.3</b> | <b>Methods and materials for containment and cleaning up</b>                                                                                                                              |            |           |              |                |        |
|            | Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.                                                         |            |           |              |                |        |
| <b>6.4</b> | <b>Reference to other sections</b>                                                                                                                                                        |            |           |              |                |        |
|            | For required PPE see section 8. For disposal see section 13.                                                                                                                              |            |           |              |                |        |
| <b>7.</b>  | <b>HANDLING AND STORAGE</b>                                                                                                                                                               |            |           |              |                |        |
| <b>7.1</b> | <b>Precautions for safe handling</b>                                                                                                                                                      |            |           |              |                |        |
|            | Avoid inhalation, contact with eyes, skin and clothing. Use in a well-ventilated area. Do not eat, drink, or smoke in laboratory areas.                                                   |            |           |              |                |        |
| <b>7.2</b> | <b>Conditions for safe storage, including any incompatibilities</b>                                                                                                                       |            |           |              |                |        |
|            | Store in cool, well-ventilated area. Store locked up.                                                                                                                                     |            |           |              |                |        |
| <b>7.3</b> | <b>Specific end uses</b>                                                                                                                                                                  |            |           |              |                |        |
|            | Not applicable.                                                                                                                                                                           |            |           |              |                |        |
| <b>8.</b>  | <b>EXPOSURE CONTROLS/PERSONAL PROTECTION</b>                                                                                                                                              |            |           |              |                |        |
| <b>8.1</b> | <b>Control parameters</b>                                                                                                                                                                 |            |           |              |                |        |
|            | <b>Components with workplace control parameters</b>                                                                                                                                       |            |           |              |                |        |

Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

### Appropriate Engineering Controls

Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station. Prevent dispersion of dust. Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling product.

### Personal Protective Equipment

#### Eye / Face Protection

Use appropriate safety glasses.

#### Skin Protection

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

#### Body Protection

Wear appropriate protective clothing.

#### Respiratory Protection

If risk assessment indicates necessary, use a suitable respirator.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|                                                |                    |                           |                    |
|------------------------------------------------|--------------------|---------------------------|--------------------|
| Appearance                                     | Liquid             | Vapor Pressure            | No data available. |
| Odor                                           | Little to none     | Vapor Density             | No data available. |
| Odor Threshold                                 | No data available. | Relative Density          | No data available. |
| pH                                             | No data available. | Solubility                | No data available. |
| Melting / Freezing Point                       | No data available. | Partition Coefficient     | No data available. |
| Boiling Point / Range                          | No data available. | Autoignition Temperature  | No data available. |
| Flash Point                                    | No data available. | Decomposition Temperature | No data available. |
| Evaporation Rate                               | No data available. | Viscosity                 | No data available. |
| Flammability (Solid, Gas)                      | No data available. | Explosive Properties      | No data available. |
| Upper / Lower Flammability or Explosive Limits | No data available. | Oxidizing Properties      | No data available. |

### 9.2 Other safety information

No data available.

---

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

### 10.4 Conditions to avoid

No data available.

### 10.5 Incompatible materials

Potassium, Acid Anhydrides.

### 10.6 Hazardous decomposition products

No data available.

---

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Toxicity

LD50 Oral – rat – 2,660 mg/kg.

#### Skin Corrosion / Irritation

Causes redness.

#### Serious Eye Damage / Irritation

Classified based on available data.

#### 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**

Presumed human reproductive toxicant.

**Specific Target Organ Toxicity - Single Exposure**

Classified based on available data.

**Specific Target Organ Toxicity - Repeated Exposure**

Classified based on available data.

**Aspiration Hazard**

Classified based on available data.

**Symptoms / Routes of Exposure**

Inhalation: Causes cough and sore throat.

Ingestion: Causes abdominal pain, convulsions, diarrhea, nausea, vomiting, and skin rash.

Skin: May be absorbed through injured skin. Causes redness.

Eyes: Causes redness and pain.

Delayed / Immediate Effects:

Immediate effects include irritating to eyes, skin, and respiratory tract. May cause effects on the gastrointestinal tract, liver, and kidneys.

Delayed effects include possible cause of toxic effects upon human reproduction and dermatitis.

**Additional Information**

Classified based on available data.

---

**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

No data available.

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative 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.

---

**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Product**

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

**Contaminated Packaging**

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

---

**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**

Does not meet the criteria for classification as hazardous for transport.

**14.2 UN proper shipping name**

Does not meet the criteria for classification as hazardous for transport.

**14.3 Transport hazard class(es)**

Does not meet the criteria for classification as hazardous for transport.

**14.4 Packaging group**

Does not meet the criteria for classification as hazardous for transport.

**14.5 Environmental hazards**

Does not meet the criteria for classification as hazardous for transport.

**14.6 Special precautions for users**

Does not meet the criteria for classification as hazardous for transport.

**Additional Transport Information**

Does not meet the criteria for classification as hazardous for transport.

---

**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):** Boric Acid is listed.

**SARA 313:** Not applicable.

**SARA 311/312:** Not applicable.

**CERCLA Reportable Quantity:** Not applicable.

**California Proposition 65:** 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**

Copyright © 2018 R&D Systems, Inc. a Bio-Techne Brand

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.

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

### 1.1 Product Identifiers

Product Name: Chemi Reagent 2 (contains Boric Acid)

### 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:     | 1-800-343-7475                                                                       |
|                 |                                                                                             | Fax:           | 1-612-656-4400                                                                       |
|                 |                                                                                             | Internet:      | <a href="http://www.rndsystems.com">www.rndsystems.com</a>                           |
|                 |                                                                                             | Email address: | <a href="mailto:info@bio-techne.com">info@bio-techne.com</a>                         |
| Canada:         | 21 Canmotor Avenue<br>Toronto, Ontario M8Z4E6<br>Canada                                     | Telephone:     | 1-855-668-8722                                                                       |
|                 |                                                                                             | Fax:           | 902-827-6402                                                                         |
|                 |                                                                                             | Email address: | <a href="mailto:Canada.inquiries@bio-techne.com">Canada.inquiries@bio-techne.com</a> |
| United Kingdom: | 19 Barton Lane<br>Abingdon Science Park<br>Abingdon, OX14 3NB                               | Telephone:     | 44 (0)1235 529449                                                                    |
|                 |                                                                                             | Fax:           | 44 (0)1235 533420                                                                    |
|                 |                                                                                             | Email address: | <a href="mailto:info.emea@bio-techne.com">info.emea@bio-techne.com</a>               |
| China:          | 1193 Changning Road<br>Unit 1901, Raffles Changning Office<br>Shanghai, China               | Telephone:     | 86-400-821-3475                                                                      |
|                 |                                                                                             | Fax:           | 76 (021)52371001                                                                     |
|                 |                                                                                             | Email address: | <a href="mailto:techsupport.cn@bio-techne.com">techsupport.cn@bio-techne.com</a>     |

### 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]

Toxic to Reproduction - Category 2

### 2.2 Label Elements

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

Pictogram(s):



Signal Word: Warning Hazard

Statement(s):

H361 Suspected of damaging fertility or the unborn child.

Precautionary Statement(s):

|           |                                                                            |
|-----------|----------------------------------------------------------------------------|
| P201      | Obtain special instructions before use.                                    |
| P202      | Do not handle until all safety precautions have been read and understood.  |
| P280      | Wear protective gloves/protective clothing/eye protection/face protection. |
| P308+P313 | If exposed or concerned: get medical advice/attention.                     |
| P405      | Store locked up.                                                           |
| P501      | Dispose of contents/container to an approved waste disposal plant.         |

### 2.3 Other Hazards

Absorbed through skin.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Boric Acid.

### 3.2 Mixtures

|            | Component                                                                                                                                                                                 | CAS No.    | EC No.    | Index No.    | Classification | Conc.  |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|--------------|----------------|--------|
|            | Boric Acid                                                                                                                                                                                | 10043-35-3 | 233-139-2 | 005-007-00-2 | H361           | < 2.0% |
| <b>4.</b>  | <b>FIRST AID MEASURES</b>                                                                                                                                                                 |            |           |              |                |        |
| <b>4.1</b> | <b>Description of first aid measures</b>                                                                                                                                                  |            |           |              |                |        |
|            | <b>General Advice</b>                                                                                                                                                                     |            |           |              |                |        |
|            | Consult a doctor and show this safety data sheet.                                                                                                                                         |            |           |              |                |        |
|            | <b>If Inhaled</b>                                                                                                                                                                         |            |           |              |                |        |
|            | Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.                                |            |           |              |                |        |
|            | <b>In Case of Skin Contact</b>                                                                                                                                                            |            |           |              |                |        |
|            | Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.                     |            |           |              |                |        |
|            | <b>In Case of Eye Contact</b>                                                                                                                                                             |            |           |              |                |        |
|            | Flush with copious amounts of water for at least 15 minutes. Remove contact lenses if easy to do so. Consult a doctor.                                                                    |            |           |              |                |        |
|            | <b>If Swallowed</b>                                                                                                                                                                       |            |           |              |                |        |
|            | Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.                    |            |           |              |                |        |
| <b>4.2</b> | <b>Most important symptoms and effects, both acute and delayed</b>                                                                                                                        |            |           |              |                |        |
|            | <b>Inhalation</b>                                                                                                                                                                         |            |           |              |                |        |
|            | Causes cough or sore throat.                                                                                                                                                              |            |           |              |                |        |
|            | <b>Skin</b>                                                                                                                                                                               |            |           |              |                |        |
|            | May be absorbed through injured skin. Causes redness.                                                                                                                                     |            |           |              |                |        |
|            | <b>Eyes</b>                                                                                                                                                                               |            |           |              |                |        |
|            | Causes eye redness or pain.                                                                                                                                                               |            |           |              |                |        |
|            | <b>Ingestion</b>                                                                                                                                                                          |            |           |              |                |        |
|            | Causes abdominal pain, convulsions, diarrhea, nausea, vomiting, and skin rash.                                                                                                            |            |           |              |                |        |
| <b>4.3</b> | <b>Indication of immediate medical attention and special treatment needed</b>                                                                                                             |            |           |              |                |        |
|            | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.                                                                                         |            |           |              |                |        |
| <b>5.</b>  | <b>FIRE-FIGHTING MEASURES</b>                                                                                                                                                             |            |           |              |                |        |
| <b>5.1</b> | <b>Extinguishing Media</b>                                                                                                                                                                |            |           |              |                |        |
|            | <b>Suitable extinguishing media</b>                                                                                                                                                       |            |           |              |                |        |
|            | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                                                  |            |           |              |                |        |
| <b>5.2</b> | <b>Special hazards arising from the substance or mixture</b>                                                                                                                              |            |           |              |                |        |
|            | Not combustible. Gives off irritation or toxic fumes or gases in a fire.                                                                                                                  |            |           |              |                |        |
| <b>5.3</b> | <b>Precautions for fire-fighters</b>                                                                                                                                                      |            |           |              |                |        |
|            | Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.                                                                           |            |           |              |                |        |
| <b>6.</b>  | <b>ACCIDENTIAL RELEASE MEASURES</b>                                                                                                                                                       |            |           |              |                |        |
| <b>6.1</b> | <b>Personal precautions, protective equipment and emergency procedures</b>                                                                                                                |            |           |              |                |        |
|            | Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas. |            |           |              |                |        |
| <b>6.2</b> | <b>Environmental precautions</b>                                                                                                                                                          |            |           |              |                |        |
|            | Do not let product enter drains.                                                                                                                                                          |            |           |              |                |        |
| <b>6.3</b> | <b>Methods and materials for containment and cleaning up</b>                                                                                                                              |            |           |              |                |        |
|            | Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.                                                         |            |           |              |                |        |
| <b>6.4</b> | <b>Reference to other sections</b>                                                                                                                                                        |            |           |              |                |        |
|            | For required PPE see section 8. For disposal see section 13.                                                                                                                              |            |           |              |                |        |
| <b>7.</b>  | <b>HANDLING AND STORAGE</b>                                                                                                                                                               |            |           |              |                |        |
| <b>7.1</b> | <b>Precautions for safe handling</b>                                                                                                                                                      |            |           |              |                |        |
|            | Avoid inhalation, contact with eyes, skin and clothing. Use in a well-ventilated area. Do not eat, drink, or smoke in laboratory areas.                                                   |            |           |              |                |        |
| <b>7.2</b> | <b>Conditions for safe storage, including any incompatibilities</b>                                                                                                                       |            |           |              |                |        |
|            | Store in cool, well-ventilated area. Store locked up.                                                                                                                                     |            |           |              |                |        |
| <b>7.3</b> | <b>Specific end uses</b>                                                                                                                                                                  |            |           |              |                |        |
|            | Not applicable.                                                                                                                                                                           |            |           |              |                |        |
| <b>8.</b>  | <b>EXPOSURE CONTROLS/PERSONAL PROTECTION</b>                                                                                                                                              |            |           |              |                |        |
| <b>8.1</b> | <b>Control parameters</b>                                                                                                                                                                 |            |           |              |                |        |
|            | <b>Components with workplace control parameters</b>                                                                                                                                       |            |           |              |                |        |

Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

### Appropriate Engineering Controls

Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station. Prevent dispersion of dust. Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling product.

### Personal Protective Equipment

#### Eye / Face Protection

Use appropriate safety glasses.

#### Skin Protection

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

#### Body Protection

Wear appropriate protective clothing.

#### Respiratory Protection

If risk assessment indicates necessary, use a suitable respirator.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|                                                |                    |                           |                    |
|------------------------------------------------|--------------------|---------------------------|--------------------|
| Appearance                                     | Liquid             | Vapor Pressure            | No data available. |
| Odor                                           | Little to none     | Vapor Density             | No data available. |
| Odor Threshold                                 | No data available. | Relative Density          | No data available. |
| pH                                             | No data available. | Solubility                | No data available. |
| Melting / Freezing Point                       | No data available. | Partition Coefficient     | No data available. |
| Boiling Point / Range                          | No data available. | Autoignition Temperature  | No data available. |
| Flash Point                                    | No data available. | Decomposition Temperature | No data available. |
| Evaporation Rate                               | No data available. | Viscosity                 | No data available. |
| Flammability (Solid, Gas)                      | No data available. | Explosive Properties      | No data available. |
| Upper / Lower Flammability or Explosive Limits | No data available. | Oxidizing Properties      | No data available. |

### 9.2 Other safety information

No data available.

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

### 10.4 Conditions to avoid

No data available.

### 10.5 Incompatible materials

Potassium, Acid Anhydrides.

### 10.6 Hazardous decomposition products

No data available.

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Toxicity

LD50 Oral – rat – 2,660 mg/kg.

#### Skin Corrosion / Irritation

Causes redness.

#### Serious Eye Damage / Irritation

Classified based on available data.

#### 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**

Presumed human reproductive toxicant.

**Specific Target Organ Toxicity - Single Exposure**

Classified based on available data.

**Specific Target Organ Toxicity - Repeated Exposure**

Classified based on available data.

**Aspiration Hazard**

Classified based on available data.

**Symptoms / Routes of Exposure**

Inhalation: Causes cough and sore throat.

Ingestion: Causes abdominal pain, convulsions, diarrhea, nausea, vomiting, and skin rash.

Skin: May be absorbed through injured skin. Causes redness.

Eyes: Causes redness and pain.

Delayed / Immediate Effects:

Immediate effects include irritating to eyes, skin, and respiratory tract. May cause effects on the gastrointestinal tract, liver, and kidneys.

Delayed effects include possible cause of toxic effects upon human reproduction and dermatitis.

**Additional Information**

Classified based on available data.

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**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

No data available.

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative 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**

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

**Contaminated Packaging**

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

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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**

Does not meet the criteria for classification as hazardous for transport.

**14.2 UN proper shipping name**

Does not meet the criteria for classification as hazardous for transport.

**14.3 Transport hazard class(es)**

Does not meet the criteria for classification as hazardous for transport.

**14.4 Packaging group**

Does not meet the criteria for classification as hazardous for transport.

**14.5 Environmental hazards**

Does not meet the criteria for classification as hazardous for transport.

**14.6 Special precautions for users**

Does not meet the criteria for classification as hazardous for transport.

**Additional Transport Information**

Does not meet the criteria for classification as hazardous for transport.

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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):** Boric Acid is listed.

**SARA 313:** Not applicable.

**SARA 311/312:** Not applicable.

**CERCLA Reportable Quantity:** Not applicable.

**California Proposition 65:** 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.