

IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1. 1.1 **Product Identifiers** Mouse/Rat HGF Quantikine ELISA Kit Product Name: MHG00 Catalog Number: Components: Microplate Conjugate (contains Proclin 300) Standard (contains Proclin 300) Control (contains Proclin 300) Color Reagent A Color Reagent B (contains Tetramethylbenzidine in a Proprietary Buffer containing N,N Dimethylformamide (DMF)) Assay Diluent (contains Proclin 300) Calibrator Diluent (contains Proclin 300) Wash Buffer Concentrate (contains Proclin 300) Stop Solution (contains Hydrochloric 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 Telephone: 1-800-343-7475 614 McKinley Place NE Fax: 1-612-656-4400 Minneapolis, MN 55413, USA Internet<sup>.</sup> www.rndsystems.com Email address: info@bio-techne.com Canada: 461 North Service Rd West 1-855-668-8722 Telephone: Unit B37 Fax: 902-827-6402 Oakville, ON L6M 2V5 Email address: Canada.inquiries@bio-techne.com United Kingdom: 44 (0)1235 529449 19 Barton Lane Telephone: Abingdon Science Park 44 (0)1235 533420 Fax: Abingdon, OX14 3NB Email address: info.emea@bio-techne.com 1.4 **Emergency Telephone Number** Emergency Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449

## 2. HAZARDS IDENTIFICATION

See additional safety data sheets.

# RD SYSTEMS a biotechne brand

|     |   |                               |                      |                       |   | ·····,     |  |  |
|-----|---|-------------------------------|----------------------|-----------------------|---|------------|--|--|
| 1.  | IDENTIFICATION OF THE S   | SUBSTANCE/MIXTURE AN          | D OF THE COMPA       | NY/UNDERTAKING        | i   |            |  |  |
| 1.1 | Product Identifiers   |                               |                      |                       |   |            |  |  |
|     | Product Name: 0   | Conjugate (contains Proclin 3 | 00 Mixture = .005%)  |                       |   |            |  |  |
| 1.2 | Relevant identified uses of t   | he substance or mixture and   | d uses advised agair | ist                   |   |            |  |  |
|     | Identified Uses: F  | For Research Use Only         |                      |                       |   |            |  |  |
| 1.3 | Details of the supplier of the  | safety data sheet             |                      |                       |   |            |  |  |
|     |   | R&D Systems, Inc. a Bio-Tech  | ne Brand Tele        | ephone:               | 1-800-343-7475                            |            |  |  |
|     |   | 614 McKinley Place NE         | Fax:                 |                       | 1-612-656-4400                            |            |  |  |
|     | IN IN   | Minneapolis, MN 55413, USA    |                      | rnet:<br>ail address: | www.rndsystems.com<br>info@bio-techne.com |            |  |  |
|     | Canada: 4   | 161 North Service Rd West     | Tele                 | ephone:               | 1-855-668-8722                            |            |  |  |
|     |   | Jnit B37                      | Fax                  |                       | 902-827-6402                              |            |  |  |
|     | (   | Dakville, ON L6M 2V5          | Ema                  | ail address:          | Canada.inquiries@bio-techne.com           |            |  |  |
|     | United Kingdom: 1   | 19 Barton Lane                | Tele                 | phone:                | 44 (0)1235 529449                         |            |  |  |
|     | A   | Abingdon Science Park         | Fax:                 | :                     | 44 (0)1235 533420                         |            |  |  |
|     | A   | Abingdon, OX14 3NB            | Ema                  | ail address:          | info.emea@bio-techne.com                  |            |  |  |
| 1.4 | Emergency Telephone Numb  | ber                           |                      |                       |   |            |  |  |
|     | For chemical emergency, spill Within USA and Canada: 1-80   |                               |                      |                       | s accepted).                              |            |  |  |
| 2.  | HAZARDS IDENTIFICATIO   | N                             |                      |                       |   |            |  |  |
| 2.1 | Classification of the substar   | nce 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: V  | Varning                       |                      |                       |   |            |  |  |
|     | Hazard Statement(s):  |                               |                      |                       |   |            |  |  |
|     | H317  | May cause an allergic         | skin reaction.       |                       |   |            |  |  |
|     | Precautionary Statement(s):   |                               |                      |                       |   |            |  |  |
|     | P261  |                               |                      |                       |   |            |  |  |
|     | P261 Avoid breatning dustrumes/gas/mist/vapours/spray.<br>P272 Contaminated work clothing should not be allowed out of the workplace.       |                               |                      |                       |   |            |  |  |
|     | P280 Wear protective gloves/protective clothing/eye protection/face protection.<br>P302+352 IF ON SKIN: Wash with plenty of soap and water. |                               |                      |                       |   |            |  |  |
|     | P333+313 If skin irritation or rash occurs: Get medical advice/attention.   |                               |                      |                       |   |            |  |  |
| 2.3 | P362+P364<br><b>Other Hazards -</b> None  | Take off contaminated         | clothing and wash it | before reuse.         |   |            |  |  |
| 3.  | COMPOSITION/INFORMATION ON INGREDIENTS  |                               |                      |                       |   |            |  |  |
| 3.1 | Substances  |                               |                      |                       |   |            |  |  |
| 0.1 | Not applicable.   |                               |                      |                       |   |            |  |  |
| 3.2 | Mixtures  |                               |                      |                       |   |            |  |  |
|     | Component   | CAS No.                       | EC No.               | Index No.             | Classification                            | Conc.      |  |  |
|     | Proclin 300 Mixture = .005% (   |                               |                      |                       | H317                                      |            |  |  |
|     | ingredients)<br>Mixture of 5-Chloro-2-Methy   | 1-4- 55965-84-9               |                      | 613-167-00-           | 5   | = 0.005 %  |  |  |
|     | Isothiazolin-3-One (26172-<br>and 2-Methyl-4-Isothiazolin-<br>One (2682-20-4)   | 55-4)                         |                      | 010-107-00-           | ~   | - 0.000 /0 |  |  |

## 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. ACCIDENTIAL 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

|  | • •                                      |                           |                    |
|--|--|---------------------------|--------------------|
| Appearance                                       | Lyophilized white powder or clear 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(ies)           | 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 Explosiv<br>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

Heat, moisture.

## 10.5 Incompatible materials

Strong acids/alkalis, strong oxidising/reducing agents.

## 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidising/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
 No known symptoms.

Effects:

## Additional Information

Classified based on available data

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.3

No data available.

## 12.2 Persistence and degradability

No data available.

**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): Not applicable. SARA 313: Not applicable. SARA 311/312: Not applicable. CERCLA Reportable Quantity: Not applicable. California Proposition 65: Proclin 300 Mixture = .005%

## 15.2 Chemical safety assessment

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

Not applicable.

## 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

# RD SYSTEMS a biotechne brand

| .1                      |  | THE SUBSTANCE/MIXTURE AND OF THE (  | COMPANY/UNDERTAKI  | NG   |       |  |  |
|-------------------------|--|---|--|--|-------|--|--|
|                         | Product Identifiers  |   |  |  |       |  |  |
|                         | Product Name:  | Standard (contains Proclin 300 Mixture = .  | 005%)  |  |       |  |  |
| .2                      | Relevant identified us   | es of the substance or mixture and uses advis   | ed 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  | Telephone:   | 1-800-343-7475   |       |  |  |
|                         |  | 614 McKinley Place NE   | Fax:   | 1-612-656-4400   |       |  |  |
|                         |  | Minneapolis, MN 55413, USA  | Internet:  | www.rndsystems.com   |       |  |  |
|                         |  |   | Email address:   | info@bio-techne.com  |       |  |  |
|                         | Canada:  | 461 North Service Rd West   | Telephone:   | 1-855-668-8722   |       |  |  |
|                         | Ganada.  | Unit B37  | Fax:   | 902-827-6402   |       |  |  |
|                         |  | Oakville, ON L6M 2V5  | Email address:   | Canada.inquiries@bio-techne.com  |       |  |  |
|                         |  |   |  |  |       |  |  |
|                         | United Kingdom:  | 19 Barton Lane  | Telephone:   | 44 (0)1235 529449  |       |  |  |
|                         |  | Abingdon Science Park<br>Abingdon, OX14 3NB   | Fax:<br>Email address:   | 44 (0)1235 533420<br>info.emea@bio-techne.com  |       |  |  |
| 1.4                     | Emergency Telephone  | -   |  | mo.emea@bio-tecime.com   |       |  |  |
| 1.4                     | Emergency Telephone  | y, spill, leak, fire, exposure, or accident call CHE  | MTREC day or pight   |  |       |  |  |
|                         |  | a: 1-800-424-9300. Outside USA and Canada:  |  | alls accepted).  |       |  |  |
|                         |  |   |  |  |       |  |  |
| 2.                      | HAZARDS IDENTIFIC  | ATION   |  |  |       |  |  |
| 2.1                     | Classification of the s  | ubstance or mixture   |  |  |       |  |  |
|                         | Classification according   | ng to Regulation (EC) No 1272/2008 [GHS/CLP]  | or 29 CFR 1910.1200 [OS  | HA]  |       |  |  |
|                         | Sensibilisation, peau -  |   | -  | -  |       |  |  |
|                         |  | U U   |  |  |       |  |  |
| 2.2                     | Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]  |   |  |  |       |  |  |
|                         | Labeling according to  | Regulation (EC) No 12/2/2008 [GHS/CLP]  |  |  |       |  |  |
|                         | Distance (a)   | ~   |  |  |       |  |  |
|                         | Pictogram(s):  | (!)   |  |  |       |  |  |
|                         |  |   |  |  |       |  |  |
|                         | Signal Word:   | Avertissement   |  |  |       |  |  |
|                         | Signal Word:<br>Hazard Statement(s):   |   |  |  |       |  |  |
|                         | Signal Word:   | Avertissement<br>Peut provoquer une allergie cutané   | e.   |  |       |  |  |
|                         | Signal Word:<br>Hazard Statement(s):   | Peut provoquer une allergie cutané  | e.   |  |       |  |  |
|                         | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261  | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f   | umées / gaz / brouillards /  |  |       |  |  |
|                         | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272  | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine   | umées / gaz / brouillards /<br>és ne devraient pas sortir d  | lu lieu de travail.  |       |  |  |
|                         | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261  | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine   | iumées / gaz / brouillards /<br>és ne devraient pas sortir (<br>vêtements de protection/u  | lu lieu de travail.<br>n équipement de protection des yeux/du visage.  |       |  |  |
|                         | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272<br>P280<br>P302+352<br>P302+352<br>P333+313  | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine<br>Porter des gants de protection/des<br>EN CAS DE CONTACT AVEC LA P<br>En cas d'irritation ou d'éruption cut                                     | iumées / gaz / brouillards /<br>és ne devraient pas sortir d<br>vêtements de protection/u<br>EAU: laver abondamment a<br>anée: Demander un avis r                                | lu lieu de travail.<br>n équipement de protection des yeux/du visage.<br>a l'eau et au savon.<br>nédical/Consulter un médecin.         |       |  |  |
|                         | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272<br>P280<br>P302+352<br>P333+313<br>P362+P364   | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine<br>Porter des gants de protection/des<br>EN CAS DE CONTACT AVEC LA P  | iumées / gaz / brouillards /<br>és ne devraient pas sortir d<br>vêtements de protection/u<br>EAU: laver abondamment a<br>anée: Demander un avis r                                | lu lieu de travail.<br>n équipement de protection des yeux/du visage.<br>a l'eau et au savon.<br>nédical/Consulter un médecin.         |       |  |  |
| 2.3                     | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272<br>P280<br>P302+352<br>P302+352<br>P333+313  | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine<br>Porter des gants de protection/des<br>EN CAS DE CONTACT AVEC LA P<br>En cas d'irritation ou d'éruption cut                                     | iumées / gaz / brouillards /<br>és ne devraient pas sortir d<br>vêtements de protection/u<br>EAU: laver abondamment a<br>anée: Demander un avis r                                | lu lieu de travail.<br>n équipement de protection des yeux/du visage.<br>a l'eau et au savon.<br>nédical/Consulter un médecin.         |       |  |  |
|                         | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272<br>P280<br>P302+352<br>P333+313<br>P362+P364<br>Other Hazards - None   | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine<br>Porter des gants de protection/des<br>EN CAS DE CONTACT AVEC LA P<br>En cas d'irritation ou d'éruption cut                                     | iumées / gaz / brouillards /<br>és ne devraient pas sortir d<br>vêtements de protection/u<br>EAU: laver abondamment a<br>anée: Demander un avis r                                | lu lieu de travail.<br>n équipement de protection des yeux/du visage.<br>a l'eau et au savon.<br>nédical/Consulter un médecin.         |       |  |  |
| 3.                      | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272<br>P280<br>P302+352<br>P333+313<br>P362+P364<br>Other Hazards - None   | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine<br>Porter des gants de protection/des<br>EN CAS DE CONTACT AVEC LA P<br>En cas d'irritation ou d'éruption cut<br>Enlever les vêtements contaminés | iumées / gaz / brouillards /<br>és ne devraient pas sortir d<br>vêtements de protection/u<br>EAU: laver abondamment a<br>anée: Demander un avis r                                | lu lieu de travail.<br>n équipement de protection des yeux/du visage.<br>a l'eau et au savon.<br>nédical/Consulter un médecin.         |       |  |  |
| 3.                      | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272<br>P280<br>P302+352<br>P333+313<br>P362+P364<br>Other Hazards - None<br>COMPOSITION/INFO   | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine<br>Porter des gants de protection/des<br>EN CAS DE CONTACT AVEC LA P<br>En cas d'irritation ou d'éruption cut<br>Enlever les vêtements contaminés | iumées / gaz / brouillards /<br>és ne devraient pas sortir d<br>vêtements de protection/u<br>EAU: laver abondamment a<br>anée: Demander un avis r                                | lu lieu de travail.<br>n équipement de protection des yeux/du visage.<br>a l'eau et au savon.<br>nédical/Consulter un médecin.         |       |  |  |
| 3.<br>3.1               | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272<br>P280<br>P302+352<br>P333+313<br>P362+P364<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances   | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine<br>Porter des gants de protection/des<br>EN CAS DE CONTACT AVEC LA P<br>En cas d'irritation ou d'éruption cut<br>Enlever les vêtements contaminés | iumées / gaz / brouillards /<br>és ne devraient pas sortir d<br>vêtements de protection/u<br>EAU: laver abondamment a<br>anée: Demander un avis r                                | lu lieu de travail.<br>n équipement de protection des yeux/du visage.<br>a l'eau et au savon.<br>nédical/Consulter un médecin.         |       |  |  |
| 3.<br>3.1               | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272<br>P280<br>P302+352<br>P333+313<br>P362+P364<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances<br>Not applicable.                          | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contamine<br>Porter des gants de protection/des<br>EN CAS DE CONTACT AVEC LA P<br>En cas d'irritation ou d'éruption cut<br>Enlever les vêtements contaminés | iumées / gaz / brouillards /<br>és ne devraient pas sortir d<br>vêtements de protection/u<br>EAU: laver abondamment a<br>anée: Demander un avis r                                | lu lieu de travail.<br>n équipement de protection des yeux/du visage.<br>à l'eau et au savon.<br>nédical/Consulter un médecin.<br>ion. | Conc. |  |  |
| 2.3<br>3.<br>3.1<br>3.2 | Signal Word:<br>Hazard Statement(s):<br>H317<br>Precautionary Stateme<br>P261<br>P272<br>P280<br>P302+352<br>P333+313<br>P362+P364<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances<br>Not applicable.<br>Mixtures<br>Component | Peut provoquer une allergie cutané<br>nt(s):<br>Éviter de respirer les poussières / f<br>Les vêtements de travail contaminé<br>Porter des gants de protection/des<br>EN CAS DE CONTACT AVEC LA P<br>En cas d'irritation ou d'éruption cut<br>Enlever les vêtements contaminés | iumées / gaz / brouillards /<br>és ne devraient pas sortir o<br>vêtements de protectionu<br>EAU: laver abondamment a<br>anée: Demander un avis r<br>et les laver avant réutilisa | lu lieu de travail.<br>n équipement de protection des yeux/du visage.<br>à l'eau et au savon.<br>nédical/Consulter un médecin.<br>ion. | Conc. |  |  |

## 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. ACCIDENTIAL 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

| Appea           | arance                            | Lyophilized white powder or clear liquid | Vapor Pressure            | No data available. |
|-----------------|-----------------------------------|--|---------------------------|--------------------|
| Odor            |                                   | Little to none                           | Vapor Density             | No data available. |
| Odor 1          | Threshold                         | No data available.                       | Relative Density          | No data available. |
| pН              |                                   | No data available.                       | Solubility(ies)           | No data available. |
| Meltin          | g / Freezing Point                | No data available.                       | Partition Coefficient     | No data available. |
| Boiling         | g Point / Range                   | No data available.                       | Autoignition Temperature  | No data available. |
| Flash           | Point                             | No data available.                       | Decomposition Temperature | No data available. |
| Evapo           | ration Rate                       | No data available.                       | Viscosity                 | No data available. |
| Flamm           | nability (Solid, Gas)             | No data available.                       | Explosive Properties      | No data available. |
| Upper<br>Limits | / Lower Flammability or Explosive | 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

Heat, moisture.

## 10.5 Incompatible materials

Strong acids/alkalis, strong oxidising/reducing agents.

## 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidising/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
 No known symptoms.

Effects:

## Additional Information

Classified based on available data

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.3

No data available.

## 12.2 Persistence and degradability

No data available.

**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.

TRANSPORT INFORMATION
 Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.
 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: Proclin 300 Mixture = .005%

## 15.2 Chemical safety assessment

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

Not applicable.

## 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

# RD SYSTEMS a biotechne brand

| 1.  | IDENTIFICATION OF THE SU  | JBSTANCE/MIXTURE AN   | D OF THE COMPANY       | UNDERTAKING     |   |           |  |  |
|-----|---|---|------------------------|-----------------|---|-----------|--|--|
| 1.1 | Product Identifiers   |   |                        |                 |   |           |  |  |
|     | Product Name: Co  | ontrol (contains Proclin 300 I  | Mixture = .005%)       |                 |   |           |  |  |
| 1.2 | Relevant identified uses of the   | e substance or mixture and  | l uses advised against |                 |   |           |  |  |
|     | Identified Uses: Fo   | r Research Use Only   |                        |                 |   |           |  |  |
| 1.3 | Details of the supplier of the s  | afety data sheet  |                        |                 |   |           |  |  |
|     | Company: R8   | D Systems, Inc. a Bio-Tech  | ne Brand Teleph        | ione:           | 1-800-343-7475                              |           |  |  |
|     |   | 4 McKinley Place NE   | Fax:                   |                 | 1-612-656-4400                              |           |  |  |
|     | Mi  | nneapolis, MN 55413, USA  | Interne                | et:<br>address: | www.rndsystems.com                          |           |  |  |
|     |   |   | Emai                   | auuress.        | info@bio-techne.com                         |           |  |  |
|     | Canada: 46  | 1 North Service Rd West   | Teleph                 | ione:           | 1-855-668-8722                              |           |  |  |
|     | Ur  | nit B37   | Fax:                   |                 | 902-827-6402                                |           |  |  |
|     | Oa  | akville, ON L6M 2V5   | Email                  | address:        | Canada.inquiries@bio-techne.com             |           |  |  |
|     | United Kingdom: 19  | Barton Lane   | Teleph                 | ione:           | 44 (0)1235 529449                           |           |  |  |
|     | -   | bingdon Science Park  | Fax:                   |                 | 44 (0)1235 533420                           |           |  |  |
|     |   | bingdon, OX14 3NB   |                        | address:        | info.emea@bio-techne.com                    |           |  |  |
| 1.4 | Emergency Telephone Numbe   | er  |                        |                 |   |           |  |  |
|     | For chemical emergency, spill,  |   |                        |                 | accented)                                   |           |  |  |
|     | Within USA and Canada: 1-800  | J-424-9300. Outside USA ar  | 10 Canada: +1 703-527  |                 | accepted).                                  |           |  |  |
| 2.  | HAZARDS IDENTIFICATION  |   |                        |                 |   |           |  |  |
| 2.1 | Classification of the substance   | e 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 Regulat   | ion (EC) No 1272/2008 [GH   | S/CLP]                 |                 |   |           |  |  |
|     | Pictogram(s):   | $\land$   |                        |                 |   |           |  |  |
|     |   | •   |                        |                 |   |           |  |  |
|     | Signal Word: Av   | rertissement  |                        |                 |   |           |  |  |
|     | Hazard Statement(s):  |   |                        |                 |   |           |  |  |
|     | H317  | Peut provoquer une all  | ergie cutanée          |                 |   |           |  |  |
|     |   |   |                        |                 |   |           |  |  |
|     |   | Precautionary Statement(s): P261 Éviter de respirer les poussières / fumées / gaz / brouillards / vapeurs / aérosols. |                        |                 |   |           |  |  |
|     | P261<br>P272  |   |                        |                 |   |           |  |  |
|     | P280 Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage. |   |                        |                 |   |           |  |  |
|     | P302+352<br>P333+313  |   |                        |                 | u et au savon.<br>cal/Consulter un médecin. |           |  |  |
|     | P362+P364   | Enlever les vêtements   |                        |                 |   |           |  |  |
| 2.3 | Other Hazards - None  |   |                        |                 |   |           |  |  |
| 3.  | COMPOSITION/INFORMATI   | ON ON INGREDIENTS   |                        |                 |   |           |  |  |
| 3.1 | Substances  |   |                        |                 |   |           |  |  |
|     | Not applicable.   |   |                        |                 |   |           |  |  |
| 3.2 | Mixtures  |   |                        |                 |   |           |  |  |
|     | Component   | CAS No.   | EC No.                 | Index No.       | Classification                              | Conc.     |  |  |
|     | Proclin 300 Mixture = .005% (a  |   | -                      |                 |   |           |  |  |
|     | ingredients)  |   |                        |                 | H317  |           |  |  |
|     | Mixture of 5-Chloro-2-Methyl-   |   |                        | 613-167-00-5    |   | = 0.005 % |  |  |
|     | Isothiazolin-3-One (26172-55<br>and 2-Methyl-4-Isothiazolin-3<br>One (2682-20-4)                                |   |                        |                 |   |           |  |  |

## 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. ACCIDENTIAL 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

| Appearance  | Lyophilized white powder or clear 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. |
| pН  | No data available.                       | Solubility(ies)           | 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<br>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

Heat, moisture.

## 10.5 Incompatible materials

Strong acids/alkalis, strong oxidising/reducing agents.

## 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidising/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
 No known symptoms.

Effects:

## Additional Information

Classified based on available data

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.3

No data available.

## 12.2 Persistence and degradability

No data available.

**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): Not applicable. SARA 313: Not applicable. SARA 311/312: Not applicable. CERCLA Reportable Quantity: Not applicable. California Proposition 65: Proclin 300 Mixture = .005%

## 15.2 Chemical safety assessment

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

Not applicable.

## 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: Color Reagent A 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified Uses: For research use only. Details of the supplier of the safety data sheet 1.3 1-800-343-7475 Company: R&D Systems, Inc. a Bio-Techne Brand Telephone: 614 McKinley Place NE 1-612-656-4400 Fax: Minneapolis, MN 55413, USA Internet: www.rndsvstems.com Email address: info@bio-techne.com Canada: 21 Canmotor Avenue Telephone: 1-855-668-8722 Toronto, Ontario M8Z4E6 Fax: 902-827-6402 Canada Email address: Canada.inquiries@bio-techne.com 19 Barton Lane 44 (0)1235 529449 United Kingdom: Telephone: Abingdon Science Park 44 (0)1235 533420 Fax: Abingdon, OX14 3NB Email address: info.emea@bio-techne.com China: 1193 Changning Road Telephone: 86-400-821-3475 Unit 1901, Raffles City Changning Office Fax: 76 (021) 52371001 Shanghai Email address techsupport.cn@bio-techne.com 1.4 **Emergency Telephone Number** Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call Bio-Techne day or night: Bio-Techne Tel: US:612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 HAZARDS IDENTIFICATION 2. 2.1 Classification of the substance or mixture This substance does not meet the classification criteria of the EC Directives 67/548/EEC, 1999/45/EC, 1272/2008 [CLP], GHS or 29 CFR 1910.1200 [OSHA]. 2.2 Label Elements The product does not need to be labelled in accordance with EC directives or respective national laws. 2.3 Other Hazards - None 3. COMPOSITION/INFORMATION ON INGREDIENTS 3.1 Substances Not applicable. 3.2 Mixtures This product does not contain hazardous chemicals at concentrations of 1% or greater. This product is not known to contain carcinogens at concentrations of 0.1% or greater. 4. FIRST AID MEASURES Description of first aid measures 4.1 **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 Eve 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. Most important symptoms and effects, both acute and delayed 4.2 To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. Indication of immediate medical attention and special treatment needed 4.3 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. ACCIDENTIAL 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

| Appearance                | Lyophilized white powder or clear 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. |
| рН                        | 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<br>Explosive Limits          | No data available.                               | Oxidizing Properties                             | No data available.                 |  |  |  |
|-----|--|--|--|------------------------------------|--|--|--|
| .2  | Other safety information                                   |  |  |                                    |  |  |  |
|     | No data available.   |  |  |                                    |  |  |  |
| 0.  | STABILITY AND REACTIVITY                                   | Y  |  |                                    |  |  |  |
| D.1 | Reactivity   |  |  |                                    |  |  |  |
|     | Stable under recommended trans                             | sport or storage conditions.                     |  |                                    |  |  |  |
| 0.2 | Chemical stability   |  |  |                                    |  |  |  |
|     | Stable under recommended stora                             | age conditions.                                  |  |                                    |  |  |  |
| 0.3 | Possibility of hazardous reaction                          | ions   |  |                                    |  |  |  |
|     | Hazardous reactions will not occu                          | ur under normal transport or storage condition   | ons. Decomposition may occur on exposure to cond | ditions or materials listed below. |  |  |  |
| ).4 | Conditions to avoid  |  |  |                                    |  |  |  |
|     | Heat, moisture.  |  |  |                                    |  |  |  |
| 0.5 | Incompatible materials                                     |  |  |                                    |  |  |  |
|     | Strong acids/alkalis, strong oxidiz                        | zing/reducing agents.                            |  |                                    |  |  |  |
| 0.6 | Hazardous decomposition pro                                |  |  |                                    |  |  |  |
|     | Strong acids/alkalis, strong oxidiz                        |  |  |                                    |  |  |  |
|     |  |  |  |                                    |  |  |  |
| ۱.  | TOXICOLOGICAL INFORMAT                                     | TION   |  |                                    |  |  |  |
| 1.1 | Information on toxicological ef                            | ifects   |  |                                    |  |  |  |
|     | Acute Toxicity   |  |  |                                    |  |  |  |
|     | Classified based on available dat                          | .ta.   |  |                                    |  |  |  |
|     | Skin Corrosion / Irritation                                |  |  |                                    |  |  |  |
|     | Classified based on available data.                        |  |  |                                    |  |  |  |
|     | Serious Eye Damage / Irritation                            | n  |  |                                    |  |  |  |
|     | Classified based on available dat                          | .ta.   |  |                                    |  |  |  |
|     | Respiratory or Skin Sensitizati                            | ion  |  |                                    |  |  |  |
|     | Classified based on available dat                          | .ta.   |  |                                    |  |  |  |
|     | Germ Cell Mutagenicity                                     |  |  |                                    |  |  |  |
|     | Classified based on available dat                          | .ta.   |  |                                    |  |  |  |
|     | Carcinogenicity  |  |  |                                    |  |  |  |
|     | Classified based on available dat                          | ita.   |  |                                    |  |  |  |
|     | Reproductive Toxicity                                      |  |  |                                    |  |  |  |
|     | Classified based on available data.                        |  |  |                                    |  |  |  |
|     | Specific Target Organ Toxicity                             | /- Single Exposure                               |  |                                    |  |  |  |
|     | Classified based on available dat                          | ıta.   |  |                                    |  |  |  |
|     | Specific Target Organ Toxicity                             | r - Repeated Exposure                            |  |                                    |  |  |  |
|     | Classified based on available data.                        |  |  |                                    |  |  |  |
|     | Aspiration Hazard  |  |  |                                    |  |  |  |
|     | Classified based on available data.                        |  |  |                                    |  |  |  |
|     | Symptoms / Routes of Exposure                              |  |  |                                    |  |  |  |
|     |  | re may be irritation of the throat with a feelin | g of tightness in the chest.                     |                                    |  |  |  |
|     | Ingestion: Ther  | re may be irritation of the throat.              |  |                                    |  |  |  |
|     | Skin: Ther   | re may be mild irritation at the site of contac  | t.   |                                    |  |  |  |
|     | Eyes: Ther   | re may be irritation and redness.                |  |                                    |  |  |  |
|     | Delayed/Immediate Effects: No I                            | known symptoms.                                  |  |                                    |  |  |  |
|     | Additional Information                                     |  |  |                                    |  |  |  |
|     | Additional Information Classified based on available data. |  |  |                                    |  |  |  |

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

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

# RD SYSTEMS a biotechne brand

Version 2.0 SDS Revision Date 10/27/2023 www.rndsystems.com

#### IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1. 1.1 **Product Identifiers** Product Name: Color Reagent B (contains N,N-Dimethylformamide and Tetramethylbenzidine) 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified Uses: 1.3 Details of the supplier of the safety data sheet R&D Systems, Inc. a Bio-Techne Brand 1-800-343-7475 Company: Telephone: 614 McKinley Place NE 1-612-656-4400 Fax: Minneapolis, MN 55413, USA Internet: www.rndsystems.com Email address: info@bio-techne.com 461 North Service Rd West Telephone: 1-855-668-8722 Canada: Unit B37 Fax: Email address: 902-827-6402 Oakville, ON L6M 2V5 ∟ iries@bio-techne.com

|                 | Oakville, ON LOW 203  | Linai address. | Canada.inquines@bio-techne.com |
|-----------------|-----------------------|----------------|--------------------------------|
| United Kingdom: | 19 Barton Lane        | Telephone:     | 44 (0)1235 529449              |
|                 | Abingdon Science Park | Fax:           | 44 (0)1235 533420              |
|                 | Abingdon, OX14 3NB    | Email address: | info.emea@bio-techne.com       |
|                 |                       |                |                                |

## 1.4 Emergency Telephone Number

For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887 (collect calls accepted).

## 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]

Acute Toxicity, dermal - Category 4 Skin Corrosion/Irritation - Category 2 Serious eye damage/eye irritation - Category 2A Acute Toxicity, inhalation - Category 4 Reproductive Toxicity - Category 1B

## 2.2 Label Elements

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

Danger

Pictogram(s):

Signal Word:

2.3



| -                    |  |
|----------------------|--|
| Hazard Statement(s): |  |
| H312                 |  |
| H315                 |  |
| H319                 |  |
| H332                 |  |
| H360                 |  |

| Harmful in contact with skin.            |
|--|
| Causes skin irritation.                  |
| Causes serious eye irritation.           |
| Harmful if inhaled.                      |
| May damage 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.  |
| P261                 | Avoid breathing dust/fumes/gas/mist/vapours/spray.   |
| P264                 | Wash hands thoroughly after handling.  |
| P271                 | Use only in well-ventilated areas.   |
| P280                 | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P302+352             | IF ON SKIN: Wash with plenty of soap and water.  |
| P304+340             | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |
| P305+351+338         | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+313             | IF exposed or concerned: Get medical advice/ attention.  |
| P312                 | Call poison center/doctor if you feel unwell.  |
| P321                 | Specific treatment (see Section 4).  |
| P332+313             | If skin irritation occurs: Get medical advice/attention.   |
| P337+313             | If eye irritation persists: Get medical advice/attention.  |
| P362+364             | Take off contaminated clothing and wash it before reuse.   |
| Other Hazards - None |  |

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## 3.1 Substances

Not applicable.

## 3.2 Mixtures

| . 2 | MIACULCS              |            |           |              |                                      |          |  |
|-----|-----------------------|------------|-----------|--------------|--------------------------------------|----------|--|
|     | Component             | CAS No.    | EC No.    | Index No.    | Classification                       | Conc.    |  |
|     | N,N-Dimethylformamide | 68-12-2    | 200-679-5 |              | H312 , H315 , H319 , H332 , H360     | < 25 %   |  |
|     | Tetramethylbenzidine  | 54827-17-7 | 259-364-6 | 616-001-00-x | Not hazardous at this concentration. | < 0.05 % |  |

## 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

5.2

#### Suitable extinguishing media

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

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. ACCIDENTIAL 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

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

## Occupational exposure limit values (Workplace Exposure Limits

List source(s): EU - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC UK - EH40/2005 Work Exposure Limits, Third edition. Published 2018. IRE - 2018 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

| Component                | CAS No. | Agency                 | OELs               | STEL               |
|--------------------------|---------|------------------------|--------------------|--------------------|
| N, N – Dimethylformamide | 68-12-2 | OSHA (USA)             | 10 ppm<br>30 mg/m3 | 20 ppm<br>61 mg/m3 |
|                          |         | European Union (IOELV) | 5 ppm<br>15 mg/m3  | 10 ppm<br>30 mg/m3 |
|                          |         | United Kingdom (UK)    | 5 ppm<br>15 mg/m3  | 10 ppm<br>30 mg/m3 |
|                          |         | Ireland                | 5 ppm<br>15 mg/m3  | 10 ppm<br>30 mg/m3 |

#### Human Health Values

| Component                                   | Endpoint | Threshold Level  | Protection goal /<br>route of exposure | Use in            | Exposure time                    |
|---|----------|------------------|--|-------------------|----------------------------------|
| N, N – Dimethylformamide<br>CAS No. 68-12-2 | DNEL     | 6 mg/m3          | Human, inhalation                      | Worker (industry) | Chronic –<br>system effects      |
|   |          | 1,1 mg/kg bw/day | Human, dermal                          | Worker (industry) | Chronic –<br>systemic<br>effects |

## Environmental Values

| Component                                   | Endpoint | Threshold Level | Organism          | Environmental<br>compartment    | Exposure<br>time                   |
|---|----------|-----------------|-------------------|---------------------------------|------------------------------------|
| N, N – Dimethylformamide<br>CAS No. 68-12-2 | PNEC     | 44 mg/l         | Aquatic organisms | Sewage treatment<br>plant (STP) | Short-term<br>(single<br>instance) |
|   |          | 111 mg/kg       | Aquatic organisms | Freshwater sediment             | Short-term<br>(single<br>instance) |
|   |          | 11,1 mg/kg      | Aquatic organisms | Marine sediment                 | Short-term<br>(single<br>instance) |

## Tetramethylbenzidine

8.2

9.

54827-17-7

Contains no substances with occupational exposure limit values.

# 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 the facility is equipped with a safety shower and eye wash stations near point of use.

## Personal Protective Equipment

## Eye / Face Protection

Use safety goggles with side protection and face shield

## **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**

Use appropriate respiratory protection if adequate exhaust ventilation is absent.

## Environmental exposure controls

Prevent product from entering the drains. Dispose in accordance with federal, state and/or local regulations.

## PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

| Appearance               | Liquid             | Vapor Pressure           | No data available. |
|--------------------------|--------------------|--------------------------|--------------------|
| Odor                     | No data available. | Vapor Density            | No data available. |
| Odor Threshold           | No data available. | Relative Density         | No data available. |
| рН                       | No data available. | Solubility(ies)          | 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. |
|                          |                    |                          |                    |

Decomposition Temperature Viscosity Explosive Properties

**Oxidizing Properties** 

No data available.

No data available.

No data available.

No data available.

Upper / Lower Flammability or Explosive 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

N,N-Dimethylformamide - Heat, moisture. Tetramethylbenzidine - Heat, flames, sparks.

## 10.5 Incompatible materials

N,N-Dimethylformamide - Strong acids/alkalis, strong oxidizing/reducing agents. Tetramethylbenzidine - Strong oxidizing agents.

## 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

## 11. TOXICOLOGICAL INFORMATION

## 11.1 Information on toxicological effects

## **Acute Toxicity**

N,N-Dimethylformamide - LD50 - Oral, Rat - 2,800 mg/kg Tetramethylbenzidine - No data available.

## Skin Corrosion / Irritation

N,N-Dimethylformamide - Classified based on available data Tetramethylbenzidine - No data available.

## Serious Eye Damage / Irritation

N,N-Dimethylformamide - Classified based on available data Tetramethylbenzidine - No data available.

## **Respiratory or Skin Sensitization**

N,N-Dimethylformamide - Classified based on available data Tetramethylbenzidine - No data available.

## Germ Cell Mutagenicity

N,N-Dimethylformamide - Genotoxicity in vitro – mouse – lymphocyte, Mutation in mammalian somatic cells. Tetramethylbenzidine - Classified based on available data

## Carcinogenicity

N,N-Dimethylformamide - Classified based on available data Tetramethylbenzidine - Not classified to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification at levels less than 0.1%.

#### **Reproductive Toxicity**

N,N-Dimethylformamide - May cause congenital malformation in the fetus. Presumed human reproductive toxicant. Tetramethylbenzidine - Classified based on available data

## Specific Target Organ Toxicity - Single Exposure

Classified based on available data

## Specific Target Organ Toxicity - Repeated Exposure

N,N-Dimethylformamide - Classified based on available data Tetramethylbenzidine - No data available.

## Aspiration Hazard

N,N-Dimethylformamide - Classified based on available data Tetramethylbenzidine - No data available.

## Symptoms / Routes of Exposure

| Inhalation: | N,N-Dimethylformamide - Toxic if inhaled. May cause respiratory tract irritation.<br>Tetramethylbenzidine - There may be irritation of the throat with a feeling of tightness in the chest. |
|-------------|---|
| Ingestion:  | N,N-Dimethylformamide - May be harmful if swallowed.<br>Tetramethylbenzidine - There may be irritation of the throat.   |
| Skin:       | N,N-Dimethylformamide - May be harmful if absorbed through the skin. May cause skin irritation.<br>Tetramethylbenzidine - There may be mild irritation at the site of contact.              |

Eyes: N,N-Dimethylformamide - Causes serious eye irritation. Tetramethylbenzidine - There may be irritation and redness.

 Delayed / Immediate
 N,N-Dimethylformamide - No known symptoms.

 Effects:
 Tetramethylbenzidine - No data available.

## Additional Information

N,N-Dimethylformamide - Classified based on available data Tetramethylbenzidine - No data available.

| 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   |
|      | Dispose of contents/container in accordance with local/regional/national/international regulations.                     |
|      | Contaminated Packaging  |
|      | Dispose of contents/container in accordance with local/regional/national/international regulations.                     |
| 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  |
|      |   |

## 15. REGULATORY INFORMATION

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006

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

TSCA (Toxic Substances Control Act): N,N-Dimethylformamide – Is Listed.

Tetramethylbenzidine - Is Listed.

SARA 313 : Not applicable.

SARA 311/312 : Not applicable.

CERCLA Reportable Quantity : Not applicable.

California Proposition 65 :

N,N-Dimethylformamide

WARNING: This product can expose you to chemicals including N,N-Dimethylformamide, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

## National Inventories

## **Country Specific Chemical Inventory Status**

|                       | Australia<br>(AIIC) | China<br>(IECSC) | EU<br>(ESCI) | EU<br>REACH | Japan<br>(CSCL-ENCS) | Korea<br>(KECI) | New<br>Zealand<br>(NXIoC) | Philippines<br>(PICCS) |
|-----------------------|---------------------|------------------|--------------|-------------|----------------------|-----------------|---------------------------|------------------------|
| N,N-Dimethylformamide | х                   | Х                | х            | X           | х                    | Х               | Х                         | х                      |

Legend: AllC Australian Inventory of Industrial Chemicals; CICR Chemical Inventory and Control Regulation; CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS) DSL Domestic Substances List (DSL); ECSI EC Substance Inventory (EINECS, ELINCS, NLP); IECSC Inventory of Existing Chemical Substances Produced or Imported in China; KECI Korea Existing Chemicals Inventory; NZIoC New Zealand Inventory of Chemicals: PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS); REACH Reg. REACH registered substances; TCSI Taiwan Chemical Substance Inventory; TSCA Toxic Substance Control Act

## Authorization / Restriction according to EU REACH

| Component             | REACH (1907/2006) -<br>Annex XIV - Substances<br>Subject to Authorization |   | REACH Regulation (EC<br>1907/2006) article 59 -<br>Candidate List of<br>Substances of Very High<br>Concern (SVHC) |
|-----------------------|---|---|---|
| N,N-Dimethylformamide |   | Use is restricted under specified<br>conditions. See link for additional<br>details. EU REACH Restriction - N,N-<br>Dimethylformamide | SVHC Candidate list - (Toxic to Reproduction, Article 57c)  |

## National Regulations

| Component             | Germany – Water Classification (VwVwS) | Germany – TA – Luft Class |
|-----------------------|--|---------------------------|
| N,N-Dimethylformamide | WGK 2                                  | -                         |

## 15.2 Chemical safety assessment

An occupational exposure assessment for inhalation and dermal exposure was conducted, based on site specific conditions, and the results were found to be below the occupational exposure limits and derived no-effect limits (DNELs) for this product. Operational conditional and risk management measures described in this safety data sheet are determined adequate. Customers may conduct their own assessments to evaluate exposure within their operations and take appropriate risk management.

## 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

# RD SYSTEMS a biotechne brand

|     |  |  | <b>j</b>                 |                     |  | www.musystems.com |  |  |
|-----|--|--|--------------------------|---------------------|--|-------------------|--|--|
| 1.  | IDENTIFICATION OF  | THE SUBSTANCE/MIXTURE AND C  | OF THE COMPANY/U         | NDERTAKING          |  |                   |  |  |
| 1.1 | Product Identifiers  |  |                          |                     |  |                   |  |  |
|     | Product Name:  | Assay Diluent (contains Proclin 3  | 00 Mixture = .005%)      |                     |  |                   |  |  |
| 1.2 | Relevant identified use  | 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 Telephone          | e:                  | 1-800-343-7475                         |                   |  |  |
|     |  | 614 McKinley Place NE  | Fax:                     |                     | 1-612-656-4400                         |                   |  |  |
|     |  | Minneapolis, MN 55413, USA   | Internet:                |                     | www.rndsystems.com                     |                   |  |  |
|     |  |  | Email add                | dress:              | info@bio-techne.com                    |                   |  |  |
|     | Canada:  | 461 North Service Rd West  | Telephone                | e:                  | 1-855-668-8722                         |                   |  |  |
|     |  | Unit B37   | Fax:                     |                     | 902-827-6402                           |                   |  |  |
|     |  | Oakville, ON L6M 2V5   | Email add                | dress:              | Canada.inquiries@bio-techne.com        |                   |  |  |
|     | Linte d Kin od and   | 10 Denten Long   | Talaahaa                 |                     | 44 (0)4005 500440                      |                   |  |  |
|     | United Kingdom:  | 19 Barton Lane<br>Abingdon Science Park  | Telephone<br>Fax:        |                     | 44 (0)1235 529449<br>44 (0)1235 533420 |                   |  |  |
|     |  | Abingdon, OX14 3NB   | Email add                |                     | info.emea@bio-techne.com               |                   |  |  |
| 1.4 | Emergency Telephone  | -  |                          |                     | J                                      |                   |  |  |
|     | For chemical emergence   | y, spill, leak, fire, exposure, or acciden<br>a: 1-800-424-9300. Outside USA and ( |                          |                     | cepted).                               |                   |  |  |
| 2.  |  | ΑΤΙΟΝ  |                          |                     |  |                   |  |  |
|     |  |  |                          |                     |  |                   |  |  |
| 2.1 | Classification of the substance or mixture   |  |                          |                     |  |                   |  |  |
|     |  | g to Regulation (EC) No 1272/2008 [G   | HS/CLP] or 29 CFR 191    | 10.1200 [OSHA]      |  |                   |  |  |
|     | Sensitization, skin - Cat  | egory 1  |                          |                     |  |                   |  |  |
| 2.2 | Label Elements   |  |                          |                     |  |                   |  |  |
|     | Labeling according to  | Regulation (EC) No 1272/2008 [GHS/C  | LP]                      |                     |  |                   |  |  |
|     | Pictogram(s):  |  |                          |                     |  |                   |  |  |
|     | Signal Word:   | Warning  |                          |                     |  |                   |  |  |
|     | Hazard Statement(s):   |  |                          |                     |  |                   |  |  |
|     | H317   | May cause an allergic skir   | reaction.                |                     |  |                   |  |  |
|     | Precautionary Statemer   | nt(s):   |                          |                     |  |                   |  |  |
|     | P261   | Avoid breathing dust/fume  | es/gas/mist/vapours/spra | ay.                 |  |                   |  |  |
|     | P272   | Contaminated work clothin  | ng should not be allowe  | d out of the workp  |  |                   |  |  |
|     | P280<br>P302+352   | Wear protective gloves/pro<br>IF ON SKIN: Wash with ple                            |                          | rection/face protec | lion.                                  |                   |  |  |
|     | P333+313   | If skin irritation or rash occ   | curs: Get medical advice |                     |  |                   |  |  |
| 2.3 | P362+P364<br>Other Hazards - None  | Take off contaminated clo  | thing and wash it before | e reuse.            |  |                   |  |  |
| 3.  | COMPOSITION/INFO   | RMATION ON INGREDIENTS   |                          |                     |  |                   |  |  |
| 3.1 | Substances   |  |                          |                     |  |                   |  |  |
| 5.1 | Not applicable.  |  |                          |                     |  |                   |  |  |
| 3.2 | Mixtures   |  |                          |                     |  |                   |  |  |
| 0.2 | Component  | CAS No. E  | C No.                    | Index No.           | Classification                         | Conc.             |  |  |
|     | · · ·  | 05% (active 96118-96-6   |                          |                     | H317                                   |                   |  |  |
|     | Mixture of 5-Chloro-2-<br>Isothiazolin-3-One (2<br>and 2-Methyl-4-Isothia<br>One (2682-20-4) | 6172-55-4)   |                          | 613-167-00-5        |  | = 0.005 %         |  |  |

## 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. ACCIDENTIAL 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

| Appearance  | Lyophilized white powder or clear 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. |
| pН  | No data available.                       | Solubility(ies)           | 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<br>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

Heat, moisture.

## 10.5 Incompatible materials

Strong acids/alkalis, strong oxidising/reducing agents.

## 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidising/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
 No known symptoms.

Effects:

## Additional Information

Classified based on available data

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.3

No data available.

## 12.2 Persistence and degradability

No data available.

**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): Not applicable. SARA 313: Not applicable. SARA 311/312: Not applicable. CERCLA Reportable Quantity: Not applicable. California Proposition 65: Proclin 300 Mixture = .005%

## 15.2 Chemical safety assessment

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

Not applicable.

## 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

# RD SYSTEMS a biotechne brand

| 1.  | IDENTIFICATION OF THE   | SUBSTANCE/MIXTURE AND OF   | THE COMPANY/UND          | ERTAKING     |                               |           |  |
|-----|---|--|--------------------------|--------------|-------------------------------|-----------|--|
| 1.1 | Product Identifiers   |  |                          |              |                               |           |  |
|     | Product Name:   | Calibrator Diluent (contains Proclin                                       | 300 Mixture = .005%)     |              |                               |           |  |
| 1.2 | Relevant identified uses of t   | the substance or mixture and uses  | s advised against        |              |                               |           |  |
|     | Identified Uses:  | For Research Use Only  |                          |              |                               |           |  |
| 1.3 | Details of the supplier of the  | e safety data sheet  |                          |              |                               |           |  |
|     | Company:  | R&D Systems, Inc. a Bio-Techne Br  | and Telephone:           | 1-8          | 00-343-7475                   |           |  |
|     |   | 614 McKinley Place NE  | Fax:                     | 1-6          | 12-656-4400                   |           |  |
|     | I   | Minneapolis, MN 55413, USA   | Internet:                |              | w.rndsystems.com              |           |  |
|     |   |  | Email addre              | ss: info     | @bio-techne.com               |           |  |
|     | Canada:   | 461 North Service Rd West  | Telephone:               | 1-8          | 55-668-8722                   |           |  |
|     | I   | Unit B37   | Fax:                     | 902          | 2-827-6402                    |           |  |
|     | (   | Oakville, ON L6M 2V5   | Email addre              | ss: Car      | nada.inquiries@bio-techne.com |           |  |
|     | United Kingdom:   | 19 Barton Lane   | Telephone:               | 44           | (0)1235 529449                |           |  |
|     | -   | Abingdon Science Park  | Fax:                     |              | (0)1235 533420                |           |  |
|     |   | Abingdon, OX14 3NB   | Email addre              |              | .emea@bio-techne.com          |           |  |
| 1.4 | Emergency Telephone Num   | ber  |                          |              |                               |           |  |
|     |   | ll, leak, fire, exposure, or accident c<br>00-424-9300. Outside USA and Ca |                          |              | ted).                         |           |  |
| 2.  | HAZARDS IDENTIFICATIO   | N  |                          |              |                               |           |  |
| 2.1 | Classification of the substa  | nce or mixture   |                          |              |                               |           |  |
|     | Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]   |  |                          |              |                               |           |  |
|     | Sensitization, skin - Category  |  | •••••                    |              |                               |           |  |
|     |   | •  |                          |              |                               |           |  |
| 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 r   | eaction.                 |              |                               |           |  |
|     | Precautionary Statement(s):   |  |                          |              |                               |           |  |
|     | P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.   |  |                          |              |                               |           |  |
|     | P272 Contaminated work clothing should not be allowed out of the workplace.   |  |                          |              |                               |           |  |
|     | P280 Wear protective gloves/protective clothing/eye protection/face protection.<br>P302+352 IF ON SKIN: Wash with plenty of soap and water. |  |                          |              |                               |           |  |
|     | P333+313 If skin irritation or rash occurs: Get medical advice/attention.   |  |                          |              |                               |           |  |
| 2.3 | P362+P364<br><b>Other Hazards -</b> None  | Take off contaminated clothi   | ng and wash it before re | use.         |                               |           |  |
|     |   |  |                          |              |                               |           |  |
| 3.  | COMPOSITION/INFORMA   | TION ON INGREDIENTS  |                          |              |                               |           |  |
| 3.1 | Substances  |  |                          |              |                               |           |  |
|     | Not applicable.   |  |                          |              |                               |           |  |
| 3.2 | Mixtures  |  |                          |              |                               |           |  |
|     | Component   |  | No. l                    | ndex No.     | Classification                | Conc.     |  |
|     | Proclin 300 Mixture = .005% ingredients)  | (active 96118-96-6   |                          |              | H317                          |           |  |
|     | Mixture of 5-Chloro-2-Methy   |  | e                        | 613-167-00-5 |                               | = 0.005 % |  |
|     | Isothiazolin-3-One (26172-<br>and 2-Methyl-4-Isothiazolin<br>One (2682-20-4)  |  |                          |              |                               |           |  |

## 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. ACCIDENTIAL 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

| Appearance  | Lyophilized white powder or clear 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. |
| рH  | No data available.                       | Solubility(ies)           | 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<br>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

Heat, moisture.

## 10.5 Incompatible materials

Strong acids/alkalis, strong oxidising/reducing agents.

## 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidising/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
 No known symptoms.

Effects:

## Additional Information

Classified based on available data

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.3

No data available.

## 12.2 Persistence and degradability

No data available.

**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): Not applicable. SARA 313: Not applicable. SARA 311/312: Not applicable. CERCLA Reportable Quantity: Not applicable. California Proposition 65: Proclin 300 Mixture = .005%

## 15.2 Chemical safety assessment

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

Not applicable.

## 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

# RD SYSTEMS a biotechne brand

|    |  |   | ballely Data Shee                |  | www.rnasystems.c            |  |
|----|--|---|----------------------------------|--|-----------------------------|--|
| ı. | IDENTIFICATION OF  | THE SUBSTANCE/MIXTURE AND OF THI                  | E COMPANY/UNDERTAKIN             | G  |                             |  |
| .1 | Product Identifiers  |   |                                  |  |                             |  |
|    | Product Name:  | Wash Buffer Concentrate (contains Proc            | lin 300 Mixture = .025%)         |  |                             |  |
| 2  | Relevant identified us   | es of the substance or mixture and uses adv       |                                  |  |                             |  |
|    | Identified Uses:   | For Research Use Only                             | Ū                                |  |                             |  |
| 3  | Details of the supplier  | of the safety data sheet                          |                                  |  |                             |  |
|    | Company:   | R&D Systems, Inc. a Bio-Techne Brand              | Telephone:                       | 1-800-343-7475                               |                             |  |
|    |  | 614 McKinley Place NE                             | Fax:                             | 1-612-656-4400                               |                             |  |
|    |  | Minneapolis, MN 55413, USA                        | Internet:                        | www.rndsystems.com                           |                             |  |
|    |  |   | Email address:                   | info@bio-techne.com                          |                             |  |
|    | Canada:  | 461 North Service Rd West                         | Telephone:                       | 1-855-668-8722                               |                             |  |
|    |  | Unit B37  | Fax:                             | 902-827-6402                                 |                             |  |
|    |  | Oakville, ON L6M 2V5                              | Email address:                   | Canada.inquiries@bio-techne.com              |                             |  |
|    | United Kingdom:  | 19 Barton Lane                                    | Telephone:                       | 44 (0)1235 529449                            |                             |  |
|    | Onited Kingdom.  | Abingdon Science Park                             | Fax:                             | 44 (0)1235 523449                            |                             |  |
|    |  | Abingdon, OX14 3NB                                | Email address:                   | info.emea@bio-techne.com                     |                             |  |
| 4  | Emergency Telephone  | -   |                                  |  |                             |  |
|    | Emergency Tel:   | US: 612-379-2956 or 800-343-7475 / Eu             | urope: +44(0)1235-529449         |  |                             |  |
|    | HAZARDS IDENTIFIC  | CATION  |                                  |  |                             |  |
| 1  | Classification of the s  | ubstance or mixture                               |                                  |  |                             |  |
|    | This substance does no   | ot meet the classification criteria of the EC Dir | ectives 67/548/EEC, 1999/45/     | EC, 1272/2008 [CLP], GHS or 29 CFR 1910.1    | 200 [OSHA].                 |  |
| 2  | Label Elements   |   | ,                                |  |                             |  |
|    |  | need to be labelled in accordance with EC dire    | ectives or respective national l | aws  |                             |  |
| 3  | Other Hazards - None   |   |                                  |  |                             |  |
|    | COMPOSITION/INFO   | RMATION ON INGREDIENTS                            |                                  |  |                             |  |
| .1 | Substances   |   |                                  |  |                             |  |
|    | Not applicable.  |   |                                  |  |                             |  |
| 2  | Mixtures   |   |                                  |  |                             |  |
| -  | Component  | CAS No. EC No.                                    | Index No.                        | Classification                               | Conc.                       |  |
|    | Proclin 300 Mixture = .0   | 025% (active 96118-96-6                           |                                  |  |                             |  |
|    | ingredients)<br>Mixture of 5-Chloro-2-   | -Methyl-4- 55965-84-9                             | 613-167-0                        | 0-5  | = 0.025 %                   |  |
|    | Isothiazolin-3-One (2<br>and 2-Methyl-4-Isothi<br>One (2682-20-4)  | 26172-55-4)                                       |                                  |  |                             |  |
|    | FIRST AID MEASURI  | ES  |                                  |  |                             |  |
| 1  | Description of first aid   | d measures  |                                  |  |                             |  |
|    | General Advice   |   |                                  |  |                             |  |
|    | Consult a doctor and s   | how 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<br>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<br>Flush with copious amounts of water for at least 15 minutes. Consult a doctor.   |   |                                  |  |                             |  |
|    | If Swallowed   | ounts of water for at least 15 minutes. CONSUL    |                                  |  |                             |  |
|    |  | r. Do not induce vomiting unless directed to d    | o so by medical personnel. Ne    | ever give anything by mouth to an unconsciou | s person. Consult a doctor. |  |
| 2  |  | oms and effects, both acute and delayed           |                                  |  |                             |  |
|    |  | vledge, the chemical, physical and toxicologica   |                                  | proughly investigated.                       |                             |  |
| 3  | Indication of immediat   | te medical attention and special treatment n      | eeded                            |  |                             |  |
|    |  |   |                                  |  | 37 of 45                    |  |

## 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. ACCIDENTIAL 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

| Appearance               | Lyophilized white powder or clear 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(ies)           | 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)<br>Upper / Lower Flammability or Ex | No data available.                          | Explosive Properties                         | No data available.                       |  |  |  |  |
|--------|---|---|--|--|--|--|--|--|
|        | Limits  | No data available.                          | Oxidizing Properties                         | No data available.                       |  |  |  |  |
| .2     | Other safety information                                      |   |  |  |  |  |  |  |
|        | No data available.  |   |  |  |  |  |  |  |
| ).     | STABILITY AND REACTIVITY                                      |   |  |  |  |  |  |  |
| 0.1    | Reactivity  |   |  |  |  |  |  |  |
|        | Stable under recommended transp                               | port or storage conditions.                 |  |  |  |  |  |  |
| 0.2    | Chemical stability  |   |  |  |  |  |  |  |
|        | Stable under recommended storage                              | ae conditions.                              |  |  |  |  |  |  |
| 0.3    | Possibility of hazardous reactions                            |   |  |  |  |  |  |  |
|        |   |   | ditions. Decomposition may occur on exposure | to conditions or materials listed below. |  |  |  |  |
| 0.4    | Conditions to avoid   |   | ···· · · · · · · · · · · · · · · · · ·       |  |  |  |  |  |
|        | Heat, moisture.   |   |  |  |  |  |  |  |
| 0.5    | Incompatible materials  |   |  |  |  |  |  |  |
|        | Strong acids/alkalis, strong oxidisi                          | ng/reducing agents.                         |  |  |  |  |  |  |
| 0.6    | Hazardous decomposition produc                                |   |  |  |  |  |  |  |
|        | Strong acids/alkalis, strong oxidisi                          |   |  |  |  |  |  |  |
|        |   |   |  |  |  |  |  |  |
| 1.<br> | TOXICOLOGICAL INFORMATIC                                      |   |  |  |  |  |  |  |
| 1.1    | Information on toxicological effect                           | its   |  |  |  |  |  |  |
|        | Acute Toxicity  |   |  |  |  |  |  |  |
|        | Classified based on available data                            |   |  |  |  |  |  |  |
|        | Skin Corrosion / Irritation                                   |   |  |  |  |  |  |  |
|        | Classified based on available data                            |   |  |  |  |  |  |  |
|        | Serious Eye Damage / Irritation                               |   |  |  |  |  |  |  |
|        | Classified based on available data                            | ì   |  |  |  |  |  |  |
|        | Respiratory or Skin Sensitization                             |   |  |  |  |  |  |  |
|        | Classified based on available data                            | 1   |  |  |  |  |  |  |
|        | Germ Cell Mutagenicity  |   |  |  |  |  |  |  |
|        | Classified based on available data                            | Classified based on available data          |  |  |  |  |  |  |
|        | Carcinogenicity   | Carcinogenicity                             |  |  |  |  |  |  |
|        | Classified based on available data                            | 1   |  |  |  |  |  |  |
|        | 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   | Aspiration Hazard                           |  |  |  |  |  |  |
|        | Classified based on available data                            |   |  |  |  |  |  |  |
|        | Symptoms / Routes of Exposure                                 |   |  |  |  |  |  |  |
|        | Inhalation: There r   | nay be irritation of the throat with a feel | ing 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 No kno<br>Effects:                        | wn symptoms.                                |  |  |  |  |  |  |
|        | Additional Information  |   |  |  |  |  |  |  |
|        | Classified based on available data                            |   |  |  |  |  |  |  |

# 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.

Results of PBT and vPvB assessment 12.5

## 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: Proclin 300 Mixture = .025%

#### 15.2 Chemical safety assessment

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

#### OTHER INFORMATION 16.

## **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

Not applicable.

# RD SYSTEMS a biotechne brand

|                                      | IDENTIFICATION OF   |  |   |   |   |                          |
|--------------------------------------|---|--|---|---|---|--------------------------|
| 1.1                                  | Product Identifiers   |  |   |   |   |                          |
|                                      | Product Name: Stop Solution (contains Hydrochloric Acid < 5%)   |  |   |   |   |                          |
| .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-Teo<br>614 McKinley Place NE   | chne Brand  | Telephone:<br>Fax:  | 1-800-343-7475<br>1-612-656-4400  |                          |
|                                      |   | Minneapolis, MN 55413, US  | A   | Internet:<br>Email address:   | www.rndsystems.com<br>info@bio-techne.com   |                          |
|                                      | Canada:   | 461 North Service Rd West  |   | Telephone:  | 1-855-668-8722  |                          |
|                                      |   | Unit B37<br>Oakville, ON L6M 2V5   |   | Fax:<br>Email address:  | 902-827-6402<br>Canada.inquiries@bio-techne.com                                     |                          |
|                                      | United Kingdom:   | 19 Barton Lane   |   | Telephone:  | 44 (0)1235 529449   |                          |
|                                      |   | Abingdon Science Park  |   | Fax:  | 44 (0)1235 533420   |                          |
|                                      | _   | Abingdon, OX14 3NB   |   | Email address:  | info.emea@bio-techne.com  |                          |
| 1.4                                  | Emergency Telephone   |  |   |   |   |                          |
|                                      | Emergency Tel:  | US: 612-379-2956 or 800-34   | 43-7475 / Europe  | : +44(0)1235-529449   |   |                          |
| 2.                                   | HAZARDS IDENTIFIC   | CATION   |   |   |   |                          |
| 2.1                                  | Classification of the s   | ubstance or mixture  |   |   |   |                          |
|                                      | This substance does n   | ot meet the classification criteria o  | of the EC Directive   | s 67/548/EEC, 1999/45/E   | EC, 1272/2008 [CLP], GHS or 29 CFR 1910.1200 [OSHA].                                |                          |
|                                      | 2 Label Elements  |  |   |   |   |                          |
| 2.2                                  | Label Elements  |  |   |   |   |                          |
| 2.2                                  |   | need to be labelled in accordance  | with EC directives  | s or respective national la   | aws.  |                          |
|                                      |   |  | with EC directive   | s or respective national la   | aws.  |                          |
| 2.3                                  | The product does not r<br>Other Hazards - None  |  | with EC directive   | s or respective national la   | aws.  |                          |
| 2.2<br>2.3<br>3.<br>3.1              | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances  |  | with EC directive   | s or respective national la   | aws.  |                          |
| 2.3<br>3.<br>3.1                     | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.   |  | with EC directive   | s or respective national la   | aws.  |                          |
| 2.3<br>3.<br>3.1                     | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.<br>Mixtures   | PRMATION ON INGREDIENTS  |   | -<br>   |   | Conc                     |
| 2.3<br>3.<br>3.1                     | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.<br>Mixtures<br>Component  | ORMATION ON INGREDIENTS<br>CAS No.   | EC No.  | Index No.   | Classification  | Conc.                    |
| 2.3<br>3.<br>3.1                     | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.<br>Mixtures   | PRMATION ON INGREDIENTS  |   | -<br>   | Classification  | Conc.<br>< 5 %<br>> 95 % |
| 2.3<br>3.<br>3.1<br>3.2              | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water  | CAS No.<br>7647-01-0<br>7732-18-5  | EC No.<br>231-595-7   | Index No.   | Classification  | < 5 %                    |
| 2.3<br>3.                            | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid   | CAS No.           7647-01-0<br>7732-18-5           ES  | EC No.<br>231-595-7   | Index No.   | Classification  | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2<br>4.        | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR  | CAS No.           7647-01-0<br>7732-18-5           ES  | EC No.<br>231-595-7   | Index No.   | Classification  | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2<br>4.        | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice  | CAS No.           7647-01-0<br>7732-18-5           ES  | EC No.<br>231-595-7   | Index No.   | Classification  | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2<br>4.        | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice  | CAS No.<br>7647-01-0<br>7732-18-5<br>ES<br>d measures  | EC No.<br>231-595-7   | Index No.   | Classification  | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2<br>4.        | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice<br>Consult a doctor and s  | CAS No.<br>7647-01-0<br>7732-18-5<br>ES<br>d measures  | EC No.<br>231-595-7<br>231-791-2  | Index No.<br>017-002-01   | Classification<br>I-X   | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2<br>4.        | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice<br>Consult a doctor and s<br>If Inhaled<br>Move person into fresh<br>In Case of Skin Contac  | PRMATION ON INGREDIENTS CAS No. CAS No. 7647-01-0 7732-18-5 ES d measures how this safety data sheet. air. If not breathing, give artificial   | EC No.<br>231-595-7<br>231-791-2<br>respiration. Const  | Index No.<br>017-002-01   | Classification<br>I-X<br>MSDS.  | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2<br>4.        | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice<br>Consult a doctor and s<br>If Inhaled<br>Move person into fresh<br>In Case of Skin Contact<br>Immediately take off co  | CAS No.<br>7647-01-0<br>7732-18-5<br>ES<br>d measures<br>how this safety data sheet.<br>air. If not breathing, give artificial<br>ct<br>ontaminated clothing or shoes. Wa<br>t   | EC No.<br>231-595-7<br>231-791-2<br>respiration. Const  | Index No.<br>017-002-01<br>ult a physician. Show this<br>soap and water. Consult  | Classification<br>I-X<br>MSDS.  | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2<br>4.        | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice<br>Consult a doctor and s<br>If Inhaled<br>Move person into fresh<br>In Case of Skin Contad<br>Immediately take off co<br>In Case of Skin Contac<br>Rinse thoroughly with  | CAS No.<br>7647-01-0<br>7732-18-5<br>ES<br>d measures<br>how this safety data sheet.<br>air. If not breathing, give artificial<br>ct<br>ontaminated clothing or shoes. Wa<br>t<br>water for at least 15 minutes and i  | EC No.<br>231-595-7<br>231-791-2<br>respiration. Consu  | Index No.<br>017-002-01<br>ult a physician. Show this<br>soap and water. Consult<br>ult a physician.  | Classification<br>I-X<br>MSDS.<br>a physician.                                      | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2              | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFC<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice<br>Consult a doctor and s<br>If Inhaled<br>Move person into fresh<br>In Case of Skin Contad<br>Immediately take off co<br>In Case of Skin Contac<br>Rinse thoroughly with  | CAS No.<br>7647-01-0<br>7732-18-5<br>ES<br>d measures<br>how this safety data sheet.<br>air. If not breathing, give artificial<br>ct<br>ontaminated clothing or shoes. Wa<br>t<br>water for at least 15 minutes and i  | EC No.<br>231-595-7<br>231-791-2<br>respiration. Consu  | Index No.<br>017-002-01<br>ult a physician. Show this<br>soap and water. Consult<br>ult a physician.  | Classification<br>I-X<br>MSDS.  | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2              | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice<br>Consult a doctor and s<br>If Inhaled<br>Move person into fresh<br>In Case of Skin Contae<br>Immediately take off co<br>In Case of Eye Contac<br>Rinse thoroughly with of<br>If Swallowed<br>Never give anything by<br>Most important symptometers | CAS No.<br>7647-01-0<br>7732-18-5<br>ES<br>d measures<br>how this safety data sheet.<br>air. If not breathing, give artificial<br>ct<br>ontaminated clothing or shoes. Wa<br>t<br>water for at least 15 minutes and i<br>or mouth to an unconscious person<br>toms and effects, both acute and | EC No.<br>231-595-7<br>231-791-2<br>respiration. Const<br>ash with plenty of<br>immediately cons<br>. Rinse mouth wit<br>I delayed                        | Index No.<br>017-002-01<br>ult a physician. Show this<br>soap and water. Consult<br>ult a physician.<br>h water. Immediately con                              | Classification<br>I-X<br>MSDS.<br>a physician.<br>sult a physician. Show this MSDS. | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2<br>4.<br>4.1 | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice<br>Consult a doctor and s<br>If Inhaled<br>Move person into fresh<br>In Case of Skin Contae<br>Immediately take off co<br>In Case of Eye Contac<br>Rinse thoroughly with of<br>If Swallowed<br>Never give anything by<br>Most important symptometers | CAS No.<br>7647-01-0<br>7732-18-5<br>ES<br>d measures<br>how this safety data sheet.<br>air. If not breathing, give artificial<br>ct<br>ontaminated clothing or shoes. Wa<br>t<br>water for at least 15 minutes and i<br>or mouth to an unconscious person                                     | EC No.<br>231-595-7<br>231-791-2<br>respiration. Const<br>ash with plenty of<br>immediately cons<br>. Rinse mouth wit<br>I delayed                        | Index No.<br>017-002-01<br>ult a physician. Show this<br>soap and water. Consult<br>ult a physician.<br>h water. Immediately con                              | Classification<br>I-X<br>MSDS.<br>a physician.<br>sult a physician. Show this MSDS. | < 5 %                    |
| 2.3<br>3.<br>3.1<br>3.2<br>4.        | The product does not r<br>Other Hazards - None<br>COMPOSITION/INFO<br>Substances<br>Not applicable.<br>Mixtures<br>Component<br>Hydrochloric Acid<br>Water<br>FIRST AID MEASUR<br>Description of first aid<br>General Advice<br>Consult a doctor and s<br>if Inhaled<br>Move person into fresh<br>In Case of Skin Contac<br>Immediately take off co<br>In Case of Eye Contac<br>Rinse thoroughly with of<br>If Swallowed<br>Never give anything by<br>Most important sympt        | CAS No.<br>7647-01-0<br>7732-18-5<br>ES<br>d measures<br>how this safety data sheet.<br>air. If not breathing, give artificial<br>ct<br>ontaminated clothing or shoes. Wa<br>t<br>water for at least 15 minutes and i<br>or mouth to an unconscious person<br>toms and effects, both acute and | EC No.<br>231-595-7<br>231-791-2<br>respiration. Consi<br>ash with plenty of<br>immediately cons<br>. Rinse mouth wit<br>i delayed<br>d toxicological pro | Index No.<br>017-002-01<br>ult a physician. Show this<br>soap and water. Consult<br>ult a physician.<br>h water. Immediately con<br>perties have not been tho | Classification<br>I-X<br>MSDS.<br>a physician.<br>sult a physician. Show this MSDS. | < 5 %                    |

## 5. FIRE-FIGHTING MEASURES

## 5.1 Extinguishing Media

## Suitable extinguishing media

Use water spray or extinguishing measure that are appropriate to local circumstances and the surrounding environment. This product does not burn.

## 5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas.

## 5.3 Precautions for fire-fighters

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

## 6. ACCIDENTIAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Use water spray or extinguishing measure that are appropriate to local circumstances and the surrounding environment.

## 6.2 Environmental precautions

Hydrogen chloride gas.

## 6.3 Methods and materials for containment and cleaning up

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

## 6.4 Reference to other sections

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

## 7. HANDLING AND STORAGE

## 7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. Avoid contact with eyes and skin.

## 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not store in metal containers.

## 7.3 Specific end uses

Not applicable.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 Control parameters

## Components with workplace control parameters

|                   |           |        |           | Workplace Ex       | posure Limits |                    |
|-------------------|-----------|--------|-----------|--------------------|---------------|--------------------|
|                   |           |        | 8 Hour TW | A                  | 15 Min STE    | EL                 |
| Component         | CAS No.   | Agency | ppm       | mg.m <sup>-3</sup> | ppm           | mg.m <sup>-3</sup> |
| Hydrochloric Acid | 7647-01-0 | OSHA   | 5         | 7                  |               |                    |
|                   |           | EH40   | 5         | 8                  | 10            | 15                 |
|                   |           | NIOSH  | 5         | 7                  |               |                    |
|                   |           | ACGIH  | 5         | 7                  |               |                    |

## 8.2 Exposure controls

## Appropriate Engineering Controls

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

## **Personal Protective Equipment**

## Eye / Face Protection

Wear approved safety goggles.

## **Skin Protection**

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

## **Body Protection**

Appearance

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

#### **Respiratory Protection**

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

Colorless liquid

```
Vapor Pressure
```

No data available.

| Odor  | Pungent            | Vapor Density             | No data available. |
|---|--------------------|---------------------------|--------------------|
| Odor Threshold                                    | No data available. | Relative Density          | No data available. |
| pH  | ~1 - 2             | Solubility(ies)           | Soluble            |
| 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<br>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

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

## 10.4 Conditions to avoid

Hydroxides, amines, alkalis and metals.

## 10.5 Incompatible materials

Hydroxides, amines, alkalis or metals such as copper, brass, zinc, potassium and sodium should be avoided.

## 10.6 Hazardous decomposition products

Products formed under fire conditions: toxic gases and vapors such as chlorine.

## 11. TOXICOLOGICAL INFORMATION

## 11.1 Information on toxicological effects

#### Acute Toxicity

Irritating and corrosive to eyes, skin, and mucous membranes. Can cause severe burns upon contact while the vapors or mist are corrosive and can cause severe irritation or damage to the nose, throat and lungs. Ingestion of this product causes severe burns to the mouth, esophagus, and stomach, with consequent pain, nausea and vomiting.

## Skin Corrosion / Irritation

Can cause burns of the skin and mucous membranes.

## Serious Eye Damage / Irritation

Can cause burns, reduced vision or blindness.

## **Respiratory or Skin Sensitization**

Can cause severe burns. Causes respiratory tract irritation.

## Germ Cell Mutagenicity

No data available

## Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid).

## **Reproductive Toxicity**

No data available

## Specific Target Organ Toxicity - Single Exposure

3

## Specific Target Organ Toxicity - Repeated Exposure

No data available

## Aspiration Hazard

No data available

## Symptoms / Routes of Exposure

| Inhalation: | Inhalation of vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract and in severe cases, pulmonary edema, circulatory failure, and death. / Long term exposure to vapors may cause erosion of teeth. Long term exposures seldom occur due to the corrosive properties of this acid. |
|-------------|---|
| Ingestion:  | Harmful if swallowed. Irritating to mouth, throat and stomach.  |
| Skin:       | Causes skin irritation.   |
| Eyes:       | Causes eye burns.   |

Short-term exposure potential immediate effects: Exposure to vapor or aerosol produces inflammation and may cause ulceration of the nose, throat, and larynx; laryngeal spasm or. Eye and skin burns occur at high concentrations. Burns of the skin and mucous membranes result from contact with the solution. Short-term exposure potential delayed effects: Burns may progress to ulcerations and to keloid and retractile scarring. Pulmonary edema may occur on rare occasions. Chronic exposure by skin contact with aqueous solutions may result in dermatitis and photosensitization. Dental discoloration and erosion.

## Additional Information

Classified based on available data

## 12. ECOLOGICAL INFORMATION

#### 12.1 Toxicity

High concentrations may be toxic to aquatic life.

## 12.2 Persistence and degradability

When released into the soil, this material is not expected to degrade without pretreatment and may leach into groundwater.

12.3 Bioaccumulative potential

No data available.

## 12.4 Mobility in soil

Liquid may leach into groundwater.

## 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

Dispose of waste in accordance to applicable national, regional, or local regulations. This material should be handled as hazardous waste by a licensed disposal company.

Not applicable.

## Contaminated Packaging

Dispose in the same manner as unused product.

## 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

15.1

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.

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

TSCA (Toxic Substances Control Act): Listed SARA 313: Not Applicable SARA 311/312: Listed CERCLA Reportable Quantity: 5,000 lbs. California Proposition 65:

Hydrochloric Acid

## 15.2 Chemical safety assessment

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

## 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