

Safety Data Sheet

| ۱. | IDENTIFICATION OF | THE SUBSTANCE/MIXTURE AND OF THE CO | MPANY/UNDERTAKING | i | | |
|----|---|--|---------------------|-------------------------------------|--|--|
| .1 | Product Identifiers | | | | | |
| | Product Name: | Human XL Cytokine Luminex Performance I | Base Kit | | | |
| | Catalog Number: | LUXLM000B | | | | |
| | Components: | Human Panel Standard Cocktail (Proclin 300 |) mixture) | | | |
| | | Human Panel Low Control (contains Proclin | 300 mixture) | | | |
| | | Human Panel High Control (contains Proclin | 300 mixture) | | | |
| | | Human XL Panel Microparticle Cocktail (con | tains Sodium Azide) | | | |
| | | Human Panel Biotin-Antibody Cocktail | | | | |
| | | Streptavidin-PE (contains Proclin 300 mixtur | re) | | | |
| | | Microparticle Diluent (contains Proclin 300 m | nixture) | | | |
| | | Biotin Antibody Diluent 2 (contains Proclin 30 | 00 mixture) | | | |
| | | Calibrator Diluent RD6-65 (contains Proclin | 300 mixture) | | | |
| | | Wash Buffer Concentrate (contains Proclin 3 | 300 mixture) | | | |
| 2 | Relevant identified uses of the substance or mixture and uses advised against | | | | | |
| | Identified Uses: | For research use only. | | | | |
| 3 | Details of the supplie | r 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: | 21 Canmotor Ave | Telephone: | 1-855-668-8722 | | |
| | | Toronto, ON M8Z 4E6 Canada | Fax: | 902-827-6402 | | |
| | | | Email address: | 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 | | |
| | | | | | | |
| | China: | 1193 Changning Road | Telephone: | 86-400-821-3475 | | |
| | China: | 1193 Changning Road Unit 1901, Raffles Changning Office | Telephone: Fax: | 86-400-821-3475 76 (021)52371001 | | |

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

2. HAZARDS IDENTIFICATION

See additional safety data sheets.

| 1. | IDENTIFICATION OF | THE SUBSTANCE/MIXTURE AND OF T | HE COMPANY/UNDERTAKIN | IG | | | | |
|-----|---|--|----------------------------------|---|------------------------|--|--|--|
| 1.1 | Product Identifiers | | | | | | | |
| | Product Name: | Human Panel Standard Cocktail (con | tains Proclin 300 mixture) | | | | | |
| 1.2 | Relevant identified us | es 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 Bra 614 McKinley Place NE | Fax: | 1-800-343-7475 1-612-656-4400 | | | | |
| | | Minneapolis, MN 55413, USA | Internet: Email address: | www.rndsystems.com info@bio-techne.com | | | | |
| | Canada: | 21 Canmotor Ave | Telephone: | 1-855-668-8722 | | | | |
| | | Toronto, ON M8Z4E6 | Fax: | 902-827-6402 | | | | |
| | | | Email address: | Canada.inquiries@bio-techne.com | | | | |
| | United Kingdom: | 19 Barton Lane | Telephone: | 44 (0)1235 529449 | | | | |
| | , i i i i i i i i i i i i i i i i i i i | Abingdon Science Park | Fax: | 44 (0)1235 533420 | | | | |
| | | Abingdon, OX14 3NB | Email address: | info.emea@bio-techne.com | | | | |
| | China: | 1193 Changning Road | Telephone: | 86-400-821-3475 | | | | |
| | | Unit 1901, Raffles Changning Office | Fax: | 76 (021)52371001 | | | | |
| | | Shanghai, China | Email address: | techsupport.cn@bio-techne.com | | | | |
| 1.4 | Emergency Telephone | e Number | | | | | | |
| | Emergency Tel: For che | emical emergency, spill, leak, fire, exposure | , or accident call CHEMTREC da | y or night: Within U.S. 1-800-262-8200 Wo | rldwide 1-703-741-5500 | | | |
| | Bio-Techne Tel: US: 61 | 2-379-2956 or 800-343-7475 / Europe: +44 | 4(0)1235-529449 / China 86-400- | 821-3475 | | | | |
| 2. | HAZARDS IDENTIFIC | ATION | | | | | | |
| 2.1 | Classification of the substance or mixture | | | | | | | |
| | Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] | | | | | | | |
| | Sensitization, skin - Category 1 | | | | | | | |
| 2.2 | Label Elements | | | | | | | |
| | Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] | | | | | | | |
| | Pictogram(s): | (1) | | | | | | |
| | Signal Word: | Warning | | | | | | |
| | Hazard Statement(s): | | | | | | | |
| | H317 | May cause an allergic skin rea | action. | | | | | |
| | Precautionary Statemer | nt(s): | | | | | | |
| | P261 | Avoid breathing dust/fumes/ga | as/mist/vapors/spray. | | | | | |
| | P272 | | should not be allowed out of the | • | | | | |
| | P200 P302+352 | P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. | | | | | | |
| | P333+313 | If skin irritation or rash occurs | Get medical advice/attention. | | | | | |
| | P362+P364 P321 | P362+P364 Take off contaminated clothing and wash it before reuse. P321 Specific treatment (see section 4 on this SDS). | | | | | | |
| | P363 | Wash contaminated clothing b | before reuse. | | | | | |
| 2.3 | P501 Other Hazards - None | Dispose of contents/container | In accordance with local/regiona | I/national/international regulations. | | | | |
| 3. | COMPOSITION/INFO | RMATION ON INGREDIENTS | | | | | | |
| 3.1 | Substances | | | | | | | |
| - | Not applicable. | | | | | | | |
| 3.2 | Mixtures | | | | | | | |
| | Component | CAS No. EC I | No. Index No | Classification | Co | | | |

Proclin 300 Mixture <0.1% (active 96118-96-6

Conc.

613-167-00-5

4. FIRST AID MEASURES

Description of first aid measures

General Advice

4.1

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 Odor Odor Threshold pH Melting / Freezing Point Boiling Point / Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper / Lower Flammability or Explosive Limits | Lyophilized white powder or clear liquid Little to none No data available. No data available. No data available. No data available. No data available. No data available. No data available. | Vapor Pressure Vapor Density Relative Density Solubility Partition Coefficient Auto ignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties | No data available. No data available. |
|-----|--|--|---|--|
| 9.2 | Other safety information | | | |

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion / Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

Respiratory or Skin Sensitization

Classified based on available data.

Germ Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms / Routes of Exposure

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

| Ingestion: | There may be irritation of the throat. |
|------------|--|
|------------|--|

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

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

Additional Information

Classified based on available data

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

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

14.1 UN-Number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packaging group

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

14.5 Environmental hazards

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

14.6 Special precautions for users

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

Additional Transport Information

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

15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

| | | | | | 2 | | |
|-----|---|--|--|--|-----------------------|--|--|
| 1. | IDENTIFICATION OF | THE SUBSTANCE/MIXTURE AND OF T | HE COMPANY/UNDERTAKIN | G | | | |
| 1.1 | Product Identifiers | | | | | | |
| | Product Name: | Human Panel Low Control (contains | Proclin 300 mixture) | | | | |
| 1.2 | Relevant identified us | es 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 Bra | and Telephone: | 1-800-343-7475 | | | |
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| | | Minneapolis, MN 55413, USA | Internet: | www.rndsystems.com | | | |
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| | | | Email address: | Canada.inquiries@bio-techne.com | | | |
| | United Kingdom: | 19 Barton Lane | Telephone: | 44 (0)1235 529449 | | | |
| | Onnea Kingdom. | Abingdon Science Park | Fax: | 44 (0)1235 533420 | | | |
| | | Abingdon, OX14 3NB | Email address: | info.emea@bio-techne.com | | | |
| | | - | | | | | |
| | China: | 1193 Changning Road | Telephone: | 86-400-821-3475 | | | |
| | | Unit 1901, Raffles Changning Office | Fax: | 76 (021)52371001 | | | |
| 1.4 | Emergency Telephone | Shanghai, China | Email address: | techsupport.cn@bio-techne.com | | | |
| 1.4 | | emical emergency, spill, leak, fire, exposure | | ar night: Within LLC, 1, 200, 262, 2200 Wa | rduida 1 702 711 5500 | | |
| | | 2-379-2956 or 800-343-7475 / Europe: +44 | | • | Idwide 1-703-741-5500 | | |
| | | 2-373-2330 01 000-343-74737 Europe. +4 | (0)1233-3234437 China 80-400- | JZ 1-0+7 J | | | |
| 2. | HAZARDS IDENTIFIC | ATION | | | | | |
| 2.1 | Classification of the s | ubstance or mixture | | | | | |
| | Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] | | | | | | |
| | Sensitization, skin - Cat | tegory 1 | | | | | |
| 2.2 | Label Elements | | | | | | |
| | Labeling according to | Regulation (EC) No 1272/2008 [GHS/CLI | 2] | | | | |
| | Pictogram(s): | \wedge | | | | | |
| | i lotogram(o). | \bigcirc | | | | | |
| | Signal Word: | Warning | | | | | |
| | | •••annig | | | | | |
| | Hazard Statement(s): | | | | | | |
| | H317 | May cause an allergic skin re | action. | | | | |
| | Precautionary Statemer | nt(s): | | | | | |
| | P261 | Avoid breathing dust/fumes/g | as/mist/vapors/spray. | | | | |
| | P272 | • | should not be allowed out of the | • | | | |
| | P280 P302+352 | Wear protective gloves/protect IF ON SKIN: Wash with plents | tive clothing/eye protection/face p of soap and water | protection. | | | |
| | P333+313 | | : Get medical advice/attention. | | | | |
| | P362+P364 | Take off contaminated clothin | 0 | | | | |
| | P321 P363 | Specific treatment (see sectio Wash contaminated clothing b | | | | | |
| | P501 | | | /national/international regulations. | | | |
| 2.3 | Other Hazards - None | | | | | | |
| 3. | COMPOSITION/INFO | RMATION ON INGREDIENTS | | | | | |
| 3.1 | Substances | | | | | | |
| | Not applicable. | | | | | | |
| 3.2 | Mixtures | | | | | | |
| | Component | CAS No. EC | No. Index No | Classification | Conc. | | |
| | | | | | | | |

Proclin 300 Mixture <0.1% (active 96118-96-6

613-167-00-5

4. FIRST AID MEASURES

Description of first aid measures

General Advice

4.1

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 Odor Odor Threshold pH Melting / Freezing Point Boiling Point / Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper / Lower Flammability or Explosive Limits | Lyophilized white powder or clear liquid Little to none No data available. No data available. No data available. No data available. No data available. No data available. No data available. | Vapor Pressure Vapor Density Relative Density Solubility Partition Coefficient Auto ignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties | No data available. No data available. |
|-----|--|--|---|--|
| 9.2 | Other safety information | | | |

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion / Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

Respiratory or Skin Sensitization

Classified based on available data.

Germ Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms / Routes of Exposure

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

| Ingestion: | There may be irritation of the throat. |
|------------|--|
|------------|--|

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

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

Additional Information

Classified based on available data

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

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

14.1 UN-Number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packaging group

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

14.5 Environmental hazards

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

14.6 Special precautions for users

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

Additional Transport Information

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

15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

| 1. | IDENTIFICATION OF | THE SUBSTANCE/MIXTURE AND OF 1 | HE COMPANY/UNDERTAKIN | G | | | |
|-----|---|--|-------------------------------------|---|------------------------|--|--|
| 1.1 | Product Identifiers | | | | | | |
| | Product Name: | Human Panel High Control (contains | Proclin 300 mixture) | | | | |
| 1.2 | Relevant identified us | es 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 Bra | and 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: | 21 Canmotor Ave | Telephone: | 1-855-668-8722 | | | |
| | | Toronto, ON M8Z4E6 | Fax: | 902-827-6402 | | | |
| | | | Email address: | Canada.inquiries@bio-techne.com | | | |
| | United Kingdom | 10 Porton Long | Telephone | 44 (0)1225 520440 | | | |
| | United Kingdom: | 19 Barton Lane Abingdon Science Park | Telephone: Fax: | 44 (0)1235 529449 44 (0)1235 533420 | | | |
| | | Abingdon, OX14 3NB | Email address: | info.emea@bio-techne.com | | | |
| | | - | | | | | |
| | China: | 1193 Changning Road | Telephone: | 86-400-821-3475 | | | |
| | | Unit 1901, Raffles Changning Office | Fax: | 76 (021)52371001 | | | |
| 1.4 | Emergency Telephone | Shanghai, China | Email address: | techsupport.cn@bio-techne.com | | | |
| 1.4 | | emical emergency, spill, leak, fire, exposure | | er night: Within LLS, 1,800,262,8200 Ma | rduide 1 702 711 5500 | | |
| | | 2-379-2956 or 800-343-7475 / Europe: +4- | | • | Indwide 1-705-741-5500 | | |
| | | 2-373-2330 01 000-343-74737 Europe. +4 | (0)1233-3234437 China 80-400- | 521-5475 | | | |
| 2. | HAZARDS IDENTIFIC | ATION | | | | | |
| 2.1 | Classification of the substance or mixture | | | | | | |
| | Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] | | | | | | |
| | Sensitization, skin - Cat | tegory 1 | | | | | |
| 2.2 | Label Elements | | | | | | |
| | Labeling according to | Regulation (EC) No 1272/2008 [GHS/CL | 2] | | | | |
| | Pictogram(s): | \wedge | - | | | | |
| | r lotogram(b). | $\mathbf{\nabla}$ | | | | | |
| | Signal Word: | Warning | | | | | |
| | Signal Word. | warning | | | | | |
| | Hazard Statement(s): | | | | | | |
| | H317 | May cause an allergic skin re | action. | | | | |
| | Precautionary Statemer | nt(s): | | | | | |
| | P261 | Avoid breathing dust/fumes/g | as/mist/vapors/spray. | | | | |
| | P272 | Contaminated work clothing | should not be allowed out of the | • | | | |
| | P280 P302+352 | Wear protective gloves/protective gloves/protect | tive clothing/eye protection/face p | protection. | | | |
| | P333+313 | | Get medical advice/attention. | | | | |
| | P362+P364 | Take off contaminated clothin | 0 | | | | |
| | P321 P363 | Specific treatment (see section Wash contaminated clothing | | | | | |
| | P501 | | | /national/international regulations. | | | |
| 2.3 | Other Hazards - None | | | | | | |
| 3. | COMPOSITION/INFO | RMATION ON INGREDIENTS | | | | | |
| 3.1 | Substances | | | | | | |
| | Not applicable. | | | | | | |
| 3.2 | Mixtures | | | | | | |
| | Component | CAS No. EC | No. Index No | Classification | Conc. | | |
| | panon | U. 10 110. LU | | Glassification | 00110. | | |

Proclin 300 Mixture <0.1% (active 96118-96-6

613-167-00-5

4. FIRST AID MEASURES

Description of first aid measures

General Advice

4.1

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 Odor Odor Threshold pH Melting / Freezing Point Boiling Point / Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper / Lower Flammability or Explosive Limits | Lyophilized white powder or clear liquid Little to none No data available. No data available. No data available. No data available. No data available. No data available. No data available. | Vapor Pressure Vapor Density Relative Density Solubility Partition Coefficient Auto ignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties | No data available. No data available. |
|-----|--|--|---|--|
| 9.2 | Other safety information | | | |

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion / Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

Respiratory or Skin Sensitization

Classified based on available data.

Germ Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms / Routes of Exposure

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

| Ingestion: | There may be irritation of the throat. |
|------------|--|
|------------|--|

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

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

Additional Information

Classified based on available data

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

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

14.1 UN-Number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packaging group

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

14.5 Environmental hazards

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

14.6 Special precautions for users

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

Additional Transport Information

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

15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

| | Product Identifiers | | | | |
|---|---|--|---|--|----------|
| | Product Name: | Human XL Panel Microparticle Cocktail (c | | | |
| | Relevant identified uses | s of the substance or mixture and uses adv | vised against | | |
| | Identified Uses: | For research use only. | | | |
| 6 | Details of the supplier o | f 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: | 21 Canmotor Ave | Telephone: | 1-855-668-8722 | |
| | | Toronto, ON M8Z4E6 Canada | Fax: | 902-827-6402 | |
| | | | Email address: | Canada.inquiries@bio-techne.com | |
| | | | Talasta | 11 (0) 1005 500 110 | |
| | United Kingdom: | 19 Barton Lane | Telephone: | 44 (0)1235 529449 44 (0)1235 523420 | |
| | | Abingdon Science Park Abingdon, OX14 3NB | Fax: Email address: | 44 (0)1235 533420 info.emea@bio-techne.com | |
| | | | Linan audiess. | mo.emea@bio-techne.com | |
| | China: | 1193 Changning Road | Telephone: | 86-400-821-3475 | |
| | | Unit 1901, Raffles Changning Office | Fax: | 76 (021)52371001 | |
| | | Shanghai, China | Email address: | techsupport.cn@bio-techne.com | |
| | Emergency Telephone N | lumber | | | |
| | Emergency Tel: For chem | nical emergency, spill, leak, fire, exposure, or | accident call CHEMTREC day | or night: Within U.S. 1-800-262-8200 Worldwide 1-703- | 741-5500 |
| | Bio-Techne Tel: US: 612- | 379-2956 or 800-343-7475 / Europe: +44(0)1 | 1235-529449 / China 86-400-8 | 21-3475 | |
| | - | g to Regulation (EC) No 1272/2008 [GHS/CI | | | |
| | This substance does not r | neet the classification criteria of the EC Direc | tives 67/548/EED, 1999/45/EC | C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSHA | A] |
| | Label Elements | | | | |
| | The product does not nee | | | _ | |
| | | ed to be labelled in accordance with EC direct | ives or respective national laws | S. | |
| | Other Hazards - None | to be labelled in accordance with EC direct | ives or respective national laws | 5. | |
| | | | ives or respective national law: | 5. | |
| | COMPOSITION/INFOR | ed to be labelled in accordance with EC direct | ives or respective national law: | S. | |
| | COMPOSITION/INFOR Substances | | ives or respective national law: | S. | |
| | COMPOSITION/INFOR Substances Not applicable. | | ives or respective national law: | S. | |
| | COMPOSITION/INFOR Substances | | ives or respective national law: | S. | |
| | COMPOSITION/INFOR Substances Not applicable. | | ives or respective national laws | s. Classification | Conc. |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures | MATION ON INGREDIENTS | Index No. | Classification | |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component | CAS No. EC No. 26628-22-8 247-852-7 | Index No. | Classification | |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% | CAS No. EC No. 26628-22-8 247-852-7 | Index No. | Classification | |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% | CAS No. EC No. 26628-22-8 247-852-7 | Index No. | Classification | |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURES Description of first aid m | MATION ON INGREDIENTS CAS No. EC No. 26628-22-8 247-852- S measures | Index No. | Classification | |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURES Description of first aid m General Advice | MATION ON INGREDIENTS CAS No. EC No. 26628-22-8 247-852- S measures | Index No. | Classification | |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURES Description of first aid m General Advice Consult a doctor and show If Inhaled | MATION ON INGREDIENTS CAS No. EC No. 26628-22-8 247-852- S neasures w this safety data sheet. | Index No. 1 011-004-00- | Classification | |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURES Description of first aid m General Advice Consult a doctor and show If Inhaled | MATION ON INGREDIENTS CAS No. EC No. 26628-22-8 247-852- S neasures w this safety data sheet. monitor breathing. If breathing becomes difficu | Index No. 1 011-004-00- | Classification 7 Not hazardous at this concentration | |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURES Description of first aid in General Advice Consult a doctor and show If Inhaled Remove to fresh air and in In Case of Skin Contact | MATION ON INGREDIENTS CAS No. EC No. 26628-22-8 247-852- 3 neasures w this safety data sheet. monitor breathing. If breathing becomes difficu | Index No. 1 011-004-00- ult, give oxygen. If breathing sto | Classification 7 Not hazardous at this concentration | < 0.1% |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURES Description of first aid in General Advice Consult a doctor and show If Inhaled Remove to fresh air and in In Case of Skin Contact | MATION ON INGREDIENTS CAS No. EC No. 26628-22-8 247-852- 3 neasures w this safety data sheet. monitor breathing. If breathing becomes difficu | Index No. 1 011-004-00- ult, give oxygen. If breathing sto | Classification 7 Not hazardous at this concentration ops, give artificial respiration. Consult a doctor. | < 0.1% |
| | COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURES Description of first aid in General Advice Consult a doctor and show If Inhaled Remove to fresh air and in In Case of Skin Contact Immediately wash skin wi In Case of Eye Contact | MATION ON INGREDIENTS CAS No. EC No. 26628-22-8 247-852- 3 neasures w this safety data sheet. monitor breathing. If breathing becomes difficu | Index No. 1 011-004-00- ult, give oxygen. If breathing sto least 15 minutes. Remove cont | Classification 7 Not hazardous at this concentration ops, give artificial respiration. Consult a doctor. | < 0.1% |

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 | No data available. | | | | |
| | Melting / Freezing Point | No data available. | Partition Coefficient | No data available. | | | | |
| | Boiling Point / Range | No data available. | Auto ignition 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 Flammabili | | | | | | | |
| | Explosive Limits | No data available. | Oxidizing Properties | No data available. | | | | |
| 9.2 | Other safety information | | | | | | | |
| | No data available. | | | | | | | |
| 10. | STABILITY AND REACT | IVITY | | | | | | |
| 10.1 | Reactivity | | | | | | | |
| | Stable under recommended | I transport or storage conditions. | | | | | | |
| 10.2 | Chemical stability | | | | | | | |
| | Stable under recommended | storage conditions | | | | | | |
| 10.3 | Possibility of hazardous re | | | | | | | |
| .0.5 | - | | | ions or motorials listed below | | | | |
| 40.4 | | t occur under normal transport or storage conditions. | Decomposition may occur on exposure to condit | INTO OF THALEHAIS HOLEU DEIDW. | | | | |
| 10.4 | Conditions to avoid | | | | | | | |
| | Heat, moisture. | | | | | | | |
| 10.5 | Incompatible materials | | | | | | | |
| | Strong acids/alkalis, strong | oxidizing/reducing agents. | | | | | | |
| 10.6 | Hazardous decompositior |) products | | | | | | |
| | Strong acids/alkalis, strong | oxidizing/reducing agents. | | | | | | |
| 11. | TOXICOLOGICAL INFOR | (MATION | | | | | | |
| 11.1 | Information on toxicologic | cal effects | | | | | | |
| | Acute Toxicity | | | | | | | |
| | Classified based on availab | le data. | | | | | | |
| | Skin Corrosion / Irritation | | | | | | | |
| | Classified based on availab | le data. | | | | | | |
| | Serious Eye Damage / Irrit | | | | | | | |
| | Classified based on availab | | | | | | | |
| | | | | | | | | |
| | Respiratory or Skin Sensi | | | | | | | |
| | Classified based on availab | ie data. | | | | | | |
| | Germ Cell Mutagenicity | | | | | | | |
| | Classified based on availab | le data. | | | | | | |
| | Carcinogenicity | | | | | | | |
| | Classified based on availab | le data. | | | | | | |
| | Reproductive Toxicity | | | | | | | |
| | Classified based on availab | le data. | | | | | | |
| | Specific Target Organ Tox | cicity - Single Exposure | | | | | | |
| | Classified based on availab | le data. | | | | | | |
| | Specific Target Organ Tox | kicity - Repeated Exposure | | | | | | |
| | Classified based on availab | | | | | | | |
| | Aspiration Hazard | | | | | | | |
| | Classified based on availab | le data | | | | | | |
| | | | | | | | | |
| | Symptoms / Routes of Exp | | tightness in the chest | | | | | |
| | Inhalation: | There may be irritation of the throat with a feeling of | นฐานาธรร III แทย เปมตรเ. | | | | | |
| | Ingestion: There may be irritation of the throat. | | | | | | | |
| | - | There may be mild irritation at the site of as its it | Skin: There may be mild irritation at the site of contact. | | | | | |
| | - | There may be mild irritation at the site of contact. There may be irritation and redness. | | | | | | |

Additional Information

Classified based on available data.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

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

14.1 UN-Number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packaging group

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

14.5 Environmental hazards

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

14.6 Special precautions for users

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

Additional Transport Information

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

15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable. SARA 311/312: Not applicable. CERCLA Reportable Quantity: Not applicable. California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

| 1. | IDENTIFICATION OF | THE SUBSTANCE/MIXTURE AND OF | THE COMPANY/UNDERTAKIN | IG | | | | |
|-----|--|---|--|---|------------------------|--|--|--|
| 1.1 | Product Identifiers | | | | | | | |
| | Product Name: | Streptavidin-PE (contains Proclin 30 | 0 mixture) | | | | | |
| 1.2 | Relevant identified us | es of the substance or mixture and use | s 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 Bi | and 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: | 21 Canmotor Ave | Telephone: | 1-855-668-8722 | | | | |
| | | Toronto, ON M8Z4E6 | Fax: | 902-827-6402 | | | | |
| | | | 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 533420 | | | | |
| | | Abingdon, OX14 3NB | Email address: | info.emea@bio-techne.com | | | | |
| | | | | | | | | |
| | China: | 1193 Changning Road | Telephone: | 86-400-821-3475 | | | | |
| | | Unit 1901, Raffles Changning Office | | 76 (021)52371001 | | | | |
| 1.4 | Emergency Telephone | Shanghai, China | Email address: | techsupport.cn@bio-techne.com | | | | |
| 1.4 | | | | w or pight: Within U.S. 1,800,262,8200 Wo | rldwido 1 702 711 5500 | | | |
| | | Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-5500 Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 | | | | | | |
| | | | (-, | | | | | |
| 2. | HAZARDS IDENTIFIC | ATION | | | | | | |
| 2.1 | Classification of the s | ubstance or mixture | | | | | | |
| | Classification accordi | Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] | | | | | | |
| | Sensitization, skin - Cat | tegory 1 | | | | | | |
| 2.2 | Label Elements | | | | | | | |
| | Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] | | | | | | | |
| | Pictogram(s): | \wedge | | | | | | |
| | | \checkmark | | | | | | |
| | Signal Word: | Warning | | | | | | |
| | | | | | | | | |
| | Hazard Statement(s): | | | | | | | |
| | H317 | May cause an allergic skin re | eaction. | | | | | |
| | Precautionary Statemen | nt(s): | | | | | | |
| | P261 | Avoid breathing dust/fumes/ | | | | | | |
| | P272 P280 | 0 | should not be allowed out of the ctive clothing/eye protection/face | • | | | | |
| | P302+352 | IF ON SKIN: Wash with plen | | | | | | |
| | P333+313 | | s: Get medical advice/attention. | | | | | |
| | P362+P364 P321 | Specific treatment (see secti | ng and wash it before reuse. on 4 on this SDS). | | | | | |
| | P363 | Wash contaminated clothing | before reuse. | | | | | |
| | P501 | Dispose of contents/containe | er in accordance with local/regiona | l/national/international regulations. | | | | |
| 2.3 | Other Hazards - None | | | | | | | |
| 3. | COMPOSITION/INFO | RMATION ON INGREDIENTS | | | | | | |
| 3.1 | Substances | | | | | | | |
| | Not applicable. | | | | | | | |
| 3.2 | Mixtures | | | | | | | |
| | Component | CAS No. EC | No. Index No | Classification | Conc. | | | |

Proclin 300 Mixture <0.1% (active 96118-96-6

Conc.

613-167-00-5

4. FIRST AID MEASURES

Description of first aid measures

General Advice

4.1

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 Odor Odor Threshold pH Melting / Freezing Point Boiling Point / Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper / Lower Flammability or Explosive Limits | Lyophilized white powder or clear liquid Little to none No data available. No data available. No data available. No data available. No data available. No data available. No data available. | Vapor Pressure Vapor Density Relative Density Solubility Partition Coefficient Auto ignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties | No data available. No data available. |
|-----|--|--|---|--|
| 9.2 | Other safety information | | | |

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion / Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

Respiratory or Skin Sensitization

Classified based on available data.

Germ Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms / Routes of Exposure

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

| Ingestion: | There may be irritation of the throat. |
|------------|--|
|------------|--|

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

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

Additional Information

Classified based on available data

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

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

14.1 UN-Number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packaging group

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

14.5 Environmental hazards

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

14.6 Special precautions for users

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

Additional Transport Information

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

15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

| | | | | | , | | | |
|-----|---------------------------|---|---|--|---------------------|--|--|--|
| 1. | IDENTIFICATION OF | THE SUBSTANCE/MIXTURE AND OF TI | IE COMPANY/UNDERTAKIN | G | | | | |
| 1.1 | Product Identifiers | | | | | | | |
| | Product Name: | Microparticle Diluent (contains Proclin | 300 mixture) | | | | | |
| 1.2 | Relevant identified us | es of the substance or mixture and uses | advised against | | | | | |
| | Identified Uses: | For research use only. | | | | | | |
| 1.3 | Details of the supplier | r of the safety data sheet | | | | | | |
| | Company: | R&D Systems, Inc. a Bio-Techne Brai | nd 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: | 21 Canmotor Ave | Telephone: | 1-855-668-8722 | | | | |
| | | Toronto, ON M8Z4E6 | Fax: | 902-827-6402 | | | | |
| | | | Email address: | Canada.inquiries@bio-techne.com | | | | |
| | United Kingdom: | 19 Barton Lane | Talanhana | 44 (0)1225 520440 | | | | |
| | United Kingdom: | Abingdon Science Park | Telephone: Fax: | 44 (0)1235 529449 44 (0)1235 533420 | | | | |
| | | Abingdon, OX14 3NB | Email address: | info.emea@bio-techne.com | | | | |
| | | | | | | | | |
| | China: | 1193 Changning Road | Telephone: | 86-400-821-3475 | | | | |
| | | Unit 1901, Raffles Changning Office | Fax: | 76 (021)52371001 | | | | |
| | Careeron on Tolonkon | Shanghai, China | Email address: | techsupport.cn@bio-techne.com | | | | |
| 1.4 | Emergency Telephone | | | | 14 4 700 744 5500 | | | |
| | | | | y or night: Within U.S. 1-800-262-8200 World | WIDE 1-703-741-5500 | | | |
| | Bio-Techne Tel: US: 61 | 2-379-2956 or 800-343-7475 / Europe: +44 | 0)1235-5294497 China 86-400- | 821-3475 | | | | |
| 2. | HAZARDS IDENTIFIC | ATION | | | | | | |
| 2.1 | Classification of the s | ubstance or mixture | | | | | | |
| | Classification accordi | ing to Regulation (EC) No 1272/2008 [GHS | /CLP] or 29 CFR 1910.1200 [O | SHA] | | | | |
| | Sensitization, skin - Cat | tegory 1 | | | | | | |
| 2.2 | Label Elements | | | | | | | |
| | Labeling according to | Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] | | | | | | |
| | Pictogram(s): | \wedge | | | | | | |
| | | | | | | | | |
| | Signal Word: | Warning | | | | | | |
| | | | | | | | | |
| | Hazard Statement(s): | | | | | | | |
| | H317 | May cause an allergic skin rea | ction. | | | | | |
| | Precautionary Statement | nt(s): | | | | | | |
| | P261 | Avoid breathing dust/fumes/ga | s/mist/vapors/spray. | | | | | |
| | P272 | • | hould not be allowed out of the | • | | | | |
| | P280 P302+352 | Wear protective gloves/protect IF ON SKIN: Wash with plenty | ive clothing/eye protection/face p of soap and water | protection. | | | | |
| | P333+313 | If skin irritation or rash occurs: | | | | | | |
| | P362+P364 | Take off contaminated clothing | | | | | | |
| | P321 P363 | Specific treatment (see section Wash contaminated clothing b | | | | | | |
| | P501 | | | l/national/international regulations. | | | | |
| 2.3 | Other Hazards - None | | | | | | | |
| 3. | COMPOSITION/INFO | RMATION ON INGREDIENTS | | | | | | |
| 3.1 | Substances | | | | | | | |
| | Not applicable. | | | | | | | |
| 3.2 | Mixtures | | | | | | | |
| | Component | CAS No. EC N | o. Index No | . Classification | Conc | | | |
| | | | | | | | | |

Proclin 300 Mixture <0.1% (active 96118-96-6

Conc.

613-167-00-5

4. FIRST AID MEASURES

Description of first aid measures

General Advice

4.1

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 Odor Odor Threshold pH Melting / Freezing Point Boiling Point / Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper / Lower Flammability or Explosive Limits | Lyophilized white powder or clear liquid Little to none No data available. No data available. No data available. No data available. No data available. No data available. No data available. | Vapor Pressure Vapor Density Relative Density Solubility Partition Coefficient Auto ignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties | No data available. No data available. |
|-----|--|--|---|--|
| 9.2 | Other safety information | | | |

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion / Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

Respiratory or Skin Sensitization

Classified based on available data.

Germ Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms / Routes of Exposure

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

| Ingestion: | There may be irritation of the throat. |
|------------|--|
|------------|--|

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

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

Additional Information

Classified based on available data

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

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

14.1 UN-Number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packaging group

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

14.5 Environmental hazards

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

14.6 Special precautions for users

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

Additional Transport Information

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

15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

| 1. | IDENTIFICATION OF | THE SUBSTANCE/MIXTURE AND OF THE C | OMPANY/UNDERTAKIN | G | | | | | |
|-----|--|---|------------------------------|---|-------------------|--|--|--|--|
| 1.1 | Product Identifiers | Product Identifiers | | | | | | | |
| | Product Name: | Biotin Antibody Diluent 2 (contains Proclin 3 | 300 mixture) | | | | | | |
| 1.2 | 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: | 21 Canmotor Ave | Telephone: | 1-855-668-8722 | | | | | |
| | | Toronto, ON M8Z4E6 | Fax: | 902-827-6402 | | | | | |
| | | | Email address: | Canada.inquiries@bio-techne.com | | | | | |
| | United Kingdom: | 19 Barton Lane | Telephone: | 44 (0)1235 529449 | | | | | |
| | onited Ringdom. | Abingdon Science Park | Fax: | 44 (0)1235 533420 | | | | | |
| | | Abingdon, OX14 3NB | Email address: | info.emea@bio-techne.com | | | | | |
| | | | | | | | | | |
| | China: | 1193 Changning Road | Telephone: | 86-400-821-3475 | | | | | |
| | | Unit 1901, Raffles Changning Office Shanghai, China | Fax: Email address: | 76 (021)52371001 techsupport.cn@bio-techne.com | | | | | |
| 1.4 | Emergency Telephone | | Email addross. | | | | | | |
| | | emical emergency, spill, leak, fire, exposure, or ac | cident call CHEMTREC day | or night: Within U.S. 1-800-262-8200 Worldwi | de 1-703-741-5500 | | | | |
| | | 2-379-2956 or 800-343-7475 / Europe: +44(0)123 | | - | | | | | |
| | | | | | | | | | |
| 2. | HAZARDS IDENTIFIC | ATION | | | | | | | |
| 2.1 | Classification of the s | Classification of the substance or mixture | | | | | | | |
| | Classification accordi | 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): | \wedge | | | | | | | |
| | | | | | | | | | |
| | Signal Word: | Warning | | | | | | | |
| | | | | | | | | | |
| | Hazard Statement(s): | | | | | | | | |
| | H317 | May cause an allergic skin reaction. | | | | | | | |
| | Precautionary Statemer | Precautionary Statement(s): | | | | | | | |
| | P261 | | | | | | | | |
| | P272 | Contaminated work clothing should | | • | | | | | |
| | P280 P302+352 | Wear protective gloves/protective clothing/eye protection/face protection. 52 IF ON SKIN: Wash with plenty of soap and water. | | | | | | | |
| | P333+313 | If skin irritation or rash occurs: Get n | | | | | | | |
| | P362+P364 P321 | Take off contaminated clothing and Specific treatment (see section 4 on | | | | | | | |
| | P363 | P363 Wash contaminated clothing before reuse. | | | | | | | |
| 2.3 | P501 Other Hazards - None | Dispose of contents/container in acc | cordance with local/regional | mational/international regulations. | | | | | |
| 2.3 | Other Hazarus - None | | | | | | | | |
| 3. | COMPOSITION/INFO | RMATION ON INGREDIENTS | | | | | | | |
| 3.1 | Substances | | | | | | | | |
| | Not applicable. | | | | | | | | |
| 3.2 | Mixtures | | | | | | | | |
| | Component | CAS No. EC No. | Index No. | Classification | Conc. | | | | |

Proclin 300 Mixture <0.1% (active 96118-96-6

613-167-00-5

4. FIRST AID MEASURES

Description of first aid measures

General Advice

4.1

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 Odor Odor Threshold pH Melting / Freezing Point Boiling Point / Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper / Lower Flammability or Explosive Limits | Lyophilized white powder or clear liquid Little to none No data available. No data available. No data available. No data available. No data available. No data available. No data available. | Vapor Pressure Vapor Density Relative Density Solubility Partition Coefficient Auto ignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties | No data available. No data available. |
|-----|--|--|---|--|
| 9.2 | Other safety information | | | |

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion / Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

Respiratory or Skin Sensitization

Classified based on available data.

Germ Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms / Routes of Exposure

| Inhalation: There may be irritation of the th | hroat with a feeling of tightness in the chest. |
|---|---|
|---|---|

| Ingestion: | There may be irritation of the throat. |
|------------|--|
|------------|--|

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

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

Additional Information

Classified based on available data

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

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

14.1 UN-Number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packaging group

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

14.5 Environmental hazards

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

14.6 Special precautions for users

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

Additional Transport Information

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

15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

Proclin 300 Mixture <0.1% (active 96118-96-6

Conc.

H317

| 1. | IDENTIFICATION OF | THE SUBSTANCE/MIXTURE AND O | F THE COMPAN | IY/UNDERTAKING | ì | |
|-----|---|---|--------------------|-------------------------|---|-----------------------|
| 1.1 | Product Identifiers | | | | | |
| | Product Name: | Calibrator Diluent RD6-65 (contai | ns Proclin 300 mix | (ture) | | |
| 1.2 | Relevant identified use | es of the substance or mixture and u | ses advised agai | nst | | |
| | 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 Te | lephone: | 1-800-343-7475 | |
| | | 614 McKinley Place NE | Fa | x: | 1-612-656-4400 | |
| | | Minneapolis, MN 55413, USA | | ernet: | www.rndsystems.com | |
| | | | En | nail address: | info@bio-techne.com | |
| | Canada: | 21 Canmotor Ave | Те | lephone: | 1-855-668-8722 | |
| | | Toronto, ON M8Z4E6 | Fa | x: | 902-827-6402 | |
| | | | En | nail address: | Canada.inquiries@bio-techne.com | |
| | United Kingdom: | 19 Barton Lane | Те | lephone: | 44 (0)1235 529449 | |
| | g | Abingdon Science Park | Fa | | 44 (0)1235 533420 | |
| | | Abingdon, OX14 3NB | En | nail address: | info.emea@bio-techne.com | |
| | | | | | ~ | |
| | China: | 1193 Changning Road Unit 1901, Raffles Changning Off | | ephone: | 86-400-821-3475 76 (021)52371001 | |
| | | Shanghai, China | | nail address: | techsupport.cn@bio-techne.com | |
| 1.4 | Emergency Telephone | - | | | | |
| | | | ure, or accident c | all CHEMTREC day | or night: Within U.S. 1-800-262-8200 Worl | Idwide 1-703-741-5500 |
| | | 2-379-2956 or 800-343-7475 / Europe: | | | • | |
| | | | | | | |
| 2. | HAZARDS IDENTIFIC | ATION | | | | |
| 2.1 | Classification of the substance or mixture | | | | | |
| | Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] | | | | | |
| | Sensitization, skin - Cat | egory 1 | | | | |
| 2.2 | Label Elements | | | | | |
| | Labeling according to | Regulation (EC) No 1272/2008 [GHS/ | CLP] | | | |
| | Pictogram(s): | \wedge | | | | |
| | | \checkmark | | | | |
| | Signal Word: | Warning | | | | |
| | Hazard Statement(a) | | | | | |
| | Hazard Statement(s): | May aquad an alleraid akir | reaction | | | |
| | H317 | May cause an allergic skir | reaction. | | | |
| | Precautionary Statemer | nt(s): | | | | |
| | P261 P272 | Avoid breathing dust/fume Contaminated work clothing | | | vorkplace | |
| | P272 P280 | | • | | • | |
| | P302+352 | | | | | |
| | P333+313 | If skin irritation or rash occurs: Get medical advice/attention. | | | | |
| | P362+P364 P321 | Take off contaminated clothing and wash it before reuse. Specific treatment (see section 4 on this SDS). | | | | |
| | P363 | Wash contaminated clothing | ng before reuse. | , | | |
| 2.3 | P501 Other Hazards - None | Dispose of contents/conta | iner in accordance | e with local/regional/r | national/international regulations. | |
| 2.3 | Other Hazards - None | | | | | |
| 3. | COMPOSITION/INFO | RMATION ON INGREDIENTS | | | | |
| 3.1 | Substances | | | | | |
| | Not applicable. | | | | | |
| 3.2 | Mixtures | | | | | |
| | Component | CAS No. | EC No. | Index No. | Classification | |

613-167-00-5

4. FIRST AID MEASURES

Description of first aid measures

General Advice

4.1

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 Odor Odor Threshold pH Melting / Freezing Point Boiling Point / Range | Lyophilized white powder or clear liquid Little to none No data available. No data available. No data available. No data available. | Vapor Pressure Vapor Density Relative Density Solubility Partition Coefficient | No data available. No data available. No data available. No data available. No data available. No data available. |
|-----|--|--|---|--|
| | Boiling Point / Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper / Lower Flammability or Explosive Limits | No data available. No data available. No data available. No data available. No data available. | Auto ignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties | No data available. No data available. No data available. No data available. No data available. |
| 9.2 | Other safety information | | | |

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion / Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

Respiratory or Skin Sensitization

Classified based on available data.

Germ Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms / Routes of Exposure

| Inhalation: There may be irritation of the th | hroat with a feeling of tightness in the chest. |
|---|---|
|---|---|

| Ingestion: | There may be irritation of the throat. |
|------------|--|
|------------|--|

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

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

Additional Information

Classified based on available data

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

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

14.1 UN-Number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packaging group

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

14.5 Environmental hazards

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

14.6 Special precautions for users

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

Additional Transport Information

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

15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

| | | | | | 2 |
|-----|---------------------------|---|-----------------------------------|--|-------------------------|
| 1. | IDENTIFICATION OF | THE SUBSTANCE/MIXTURE AND OF T | HE COMPANY/UNDERTAKIN | G | |
| 1.1 | Product Identifiers | | | | |
| | Product Name: | Wash Buffer Concentrate (contains P | roclin 300 mixture) | | |
| 1.2 | Relevant identified us | es of the substance or mixture and uses | advised against | | |
| | Identified Uses: | For research use only. | | | |
| 1.3 | Details of the supplier | r of the safety data sheet | | | |
| | Company: | R&D Systems, Inc. a Bio-Techne Bra | and 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: | 21 Canmotor Ave | Telephone: | 1-855-668-8722 | |
| | | Toronto, ON M8Z4E6 | Fax: | 902-827-6402 | |
| | | | Email address: | Canada.inquiries@bio-techne.com | I |
| | United Kingdom: | 19 Barton Lane | Telephone: | 44 (0)1235 529449 | |
| | Onnea Kingdom. | Abingdon Science Park | Fax: | 44 (0)1235 533420 | |
| | | Abingdon, OX14 3NB | Email address: | info.emea@bio-techne.com | |
| | | - | | | |
| | China: | 1193 Changning Road | Telephone: | 86-400-821-3475 | |
| | | Unit 1901, Raffles Changning Office | Fax: | 76 (021)52371001 | |
| 1.4 | Emergency Telephone | Shanghai, China | Email address: | techsupport.cn@bio-techne.com | |
| 1.4 | | | | w or night Within LLS 4 800 262 8200 W | orduvido 1 702 711 5500 |
| | | emical emergency, spill, leak, fire, exposure 2-379-2956 or 800-343-7475 / Europe: +44 | | | Jildwide 1-703-741-5500 |
| | BIO-TECHNE TEL 03. 01 | 2-379-2930 01 800-343-74757 Eulope. +4- | (0)1235-529449 / Chillia 60-400- | 021-0470 | |
| 2. | HAZARDS IDENTIFIC | ATION | | | |
| 2.1 | Classification of the s | substance or mixture | | | |
| | Classification accordi | ing to Regulation (EC) No 1272/2008 [GH | S/CLP] or 29 CFR 1910.1200 [O | SHA] | |
| | Sensitization, skin - Cat | tegory 1 | | | |
| 2.2 | Label Elements | | | | |
| | | Regulation (EC) No 1272/2008 [GHS/CLI | 2] | | |
| | Pictogram(s): | | - | | |
| | r iciogram(s). | | | | |
| | Signal Words | Worning | | | |
| | Signal Word: | Warning | | | |
| | Hazard Statement(s): | | | | |
| | H317 | May cause an allergic skin rea | action. | | |
| | Precautionary Statemer | nt(s): | | | |
| | P261 | Avoid breathing dust/fumes/g | as/mist/vapors/sprav. | | |
| | P272 | Contaminated work clothing | should not be allowed out of the | | |
| | P280 | | tive clothing/eye protection/face | protection. | |
| | P302+352 P333+313 | IF ON SKIN: Wash with plenty If skin irritation or rash occurs | Get medical advice/attention. | | |
| | P362+P364 | Take off contaminated clothin | | | |
| | P321 | Specific treatment (see sectio | | | |
| | P363 P501 | Wash contaminated clothing to Dispose of contents/container | | l/national/international regulations. | |
| 2.3 | Other Hazards - None | | | | |
| • | COMPOSITION//NCC | | | | |
| 3. | | RMATION ON INGREDIENTS | | | |
| 3.1 | Substances | | | | |
| | Not applicable. | | | | |
| 3.2 | Mixtures | 01011 | | | • |
| | Component | CAS No. EC I | No. Index No | . Classification | Conc. |

Proclin 300 Mixture <0.1% (active 96118-96-6

613-167-00-5

4. FIRST AID MEASURES

Description of first aid measures

General Advice

4.1

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 Odor Odor Threshold pH Melting / Freezing Point Boiling Point / Range | Lyophilized white powder or clear liquid Little to none No data available. No data available. No data available. No data available. | Vapor Pressure Vapor Density Relative Density Solubility Partition Coefficient | No data available. No data available. No data available. No data available. No data available. No data available. |
|-----|--|--|---|--|
| | Boiling Point / Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper / Lower Flammability or Explosive Limits | No data available. No data available. No data available. No data available. No data available. | Auto ignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties | No data available. No data available. No data available. No data available. No data available. |
| 9.2 | Other safety information | | | |

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion / Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

Respiratory or Skin Sensitization

Classified based on available data.

Germ Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms / Routes of Exposure

| Inhalation: There may be irritation of the th | hroat with a feeling of tightness in the chest. |
|---|---|
|---|---|

| Ingestion: | There may be irritation of the throat. |
|------------|--|
|------------|--|

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

Eyes: There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms

Additional Information

Classified based on available data

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

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

14.1 UN-Number

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

14.2 UN proper shipping name

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

14.3 Transport hazard class(es)

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

14.4 Packaging group

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

14.5 Environmental hazards

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

14.6 Special precautions for users

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

Additional Transport Information

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

15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable.

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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