

# Safety Data Sheet

Version 4.0 SDS Revision Date 10/04/2023 www.rndsystems.com

	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE CO	MPANY/UNDERTAKING	i	
1.1	<b>Product Identifiers</b>				
	Product Name:	Human IL-6 Quantikine ELISA Kit			
	Catalog Number:	D6050			
	Components:	Human IL-6 Microplate			
		Human IL-6 Standard			
		Human IL-6 Conjugate			
		Assay Diluent RD1W			
		Calibrator Diluent RD5T			
		Calibrator Diluent RD6F			
		Wash Buffer Concentrate			
		Color Reagent A			
		Color Reagent B			
		Stop Solution			
2	Relevant identified us	es of the substance or mixture and uses advise	dagainst		
	Identified Uses:	For research use only.			
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 M8Z 4E6 Canada	Fax:	902-827-6402	
			Email address:	Canada.inquiries@bio-techne.com	
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449	
	United Kingdom:	19 Barton Lane Abingdon Science Park	Telephone: Fax:	44 (0)1235 529449 44 (0)1235 533420	
	United Kingdom:				
	United Kingdom: China:	Abingdon Science Park	Fax:	44 (0)1235 533420	
	·	Abingdon Science Park Abingdon, OX14 3NB	Fax: Email address:	44 (0)1235 533420 info.emea@bio-techne.com	

#### 1.4 Emergency Telephone Number

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

#### 2. HAZARDS IDENTIFICATION

See additional safety data sheets.

1.	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE C	OMPANY/UNDERTAKING	3
1.1	Product Identifiers			
	Product Name:	Human IL-6 Microplate		
1.2		es of the substance or mixture and uses advise	ed against	
	Identified Uses:	For Research Use Only		
1.3		of the safety data sheet		
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475
		614 McKinley Place NE Minneapolis, MN 55413, USA	Fax: Internet:	1-612-656-4400 www.rndsystems.com
			Email address:	info@bio-techne.com
	Quanta		Talantan	4 955 999 9799
	Canada:	21 Canmotor Ave Toronto, ON M8Z 4E6	Telephone: Fax:	1-855-668-8722 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
		Unit 1901, Raffles Changning Office	Fax:	76 (021)52371001
		Shanghai , China	Email address:	techsupport.cn@bio-techne.com
1.4	Emergency Telephone	Number		
	Emergency Tel:	US: 612-379-2956 or 800-343-7475 / Euro	ope: +44(0)1235-529449 / C	hina 86-400-821-3475
2.	HAZARDS IDENTIFIC			
2.1	Classification of the su			
		ot meet the classification criteria of the EC Directi	ives 67/548/EEC, 1999/45/E	C, 1272/2008 [CLP], GHS or 29 CFR 1910.1200 [OSHA].
2.2	Label Elements			
		eed to be labelled in accordance with EC directive	ves or respective national la	WS.
2.3	Other Hazards - None			
3.	COMPOSITION/INFO	RMATION ON INGREDIENTS		
3.1	Substances			
••••	Not applicable.			
3.2	Mixtures			
5.2		ontain hazardous chemicals at concentrations of	f 1% or greater. This produc	t is not known to contain carcinogens at concentrations of 0.1% or greater
		•		
4.	FIRST AID MEASURE			
4.1	Description of first aid	measures		
	General Advice			
		now this safety data sheet.		
	If Inhaled Remove to fresh air and	d monitor breathing. If breathing becomes difficul	t, give oxygen. If breathing s	tops, give artificial respiration. Consult a doctor.
	In Case of Skin Contac		, , , , , , , , , , , , , , , , , , , ,	
	Immediately wash skin	with copious amounts of soap and water for at l	least 15 minutes. Remove c	contaminated clothing and shoes and wash before reuse. Consult a docto
	In Case of Eye Contact			
	Flush with copious amo	unts of water for at least 15 minutes. Consult a o	doctor.	
	If Swallowed			
		-	o by medical personnel. Nev	ver give anything by mouth to an unconscious person. Consult a doctor.
4.2		oms and effects, both acute and delayed		
4.2		ledge, the chemical, physical and toxicological p		rouginy investigated.
4.3	Indication of immediat	e medical attention and special treatment need	iea	

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, d	ry chemical or carbon dioxide		
5.2	Special hazards arising from the substa			
0.2	In combustion, may emit toxic fumes.			
5.3	Precautions for fire-fighters			
0.0	-	nt contact with skin and eyes and self-contained	breathing apparatus.	
6.	ACCIDENTIAL RELEASE MEASURES			
6.1	Personal precautions, protective equipm	ent and emergency procedures		
			personnel to safe areas. Ensure	e adequate ventilation. Avoid breathing vapors, mist, dust
6.2	Environmental precautions			
	Do not let product enter drains.			
6.3	Methods and materials for containment a	and cleaning up		
0.0		aterial. Hold all material for appropriate disposa	I as described under section 13	of SDS
6.4	Reference to other sections			
•	For required PPE see section 8. For dispo	sal see section 13.		
7.	HANDLING AND STORAGE			
7.1		nd clothing. Avoid the formation of dust and a	erosols. Use in a well-ventilated	area. Keep away from sources of ignition. Avoid prolonged
7.2	or repeated exposure. Conditions for safe storage, including an	y incompatibilities		
		way 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 par	rameters		
	Contains no substances with occupationa	l exposure limit values.		
8.2	Exposure controls			
	Appropriate Engineering Controls			
	Use in a fume hood where applicable. Er eye wash station.	sure all engineering measures described unde	er section 7 of SDS are in place	e. Ensure laboratory is equipped with a safety shower and
	Personal Protective Equipment			
	Eye / Face Protection			
	Use appropriate safety glasses.			
	Skin Protection			
	Use appropriate chemical resistant gloves handling.	s (minimum requirement use standard BS EN	374:2003). Gloves should be in	spected before use. Wash and dry hands thoroughly after
	Body Protection			
	Wear appropriate protective clothing.			
	Respiratory Protection			
	If risk assessment indicates necessary, us	se a suitable respirator.		
9.	PHYSICAL AND CHEMICAL PROPER	ries		
9.1	Information on basic physical and chem			
5.1	Appearance	Lyophilized white powder or clear liquid	Vapor Pressure	No data available.
	Odor	Little to none	Vapor Density	No data available.
	O day Thusahald	No. J. G. Strand H. H. L.	Delether Demetter	March March 1997

**Relative Density** 

Partition Coefficient

Explosive Properties

Autoignition Temperature

**Decomposition Temperature** 

Solubility(ies)

Viscosity

Odor Threshold

Flash Point

Melting / Freezing Point

Flammability (Solid, Gas)

Boiling Point / Range

Evaporation Rate

pН

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.

**Oxidizing Properties** 

- 10.4 Conditions to avoid
  - Heat, moisture.

#### 10.5 Incompatible materials

Strong acids/alkalis, strong oxidising/reducing agents.

#### 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidising/reducing agents.

#### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data

Skin Corrosion / Irritation

Classified based on available data

Serious Eye Damage / Irritation

Classified based on available data

#### **Respiratory or Skin Sensitization**

Classified based on available data

Germ Cell Mutagenicity

Classified based on available data

#### Carcinogenicity

Classified based on available data

#### **Reproductive Toxicity**

Classified based on available data

#### Specific Target Organ Toxicity - Single Exposure

Classified based on available data

#### Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data

#### Aspiration Hazard

Classified based on available data

#### Symptoms / Routes of Exposure

Inhalation:	There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	There may be irritation of the throat.
Skin:	There may be mild irritation at the site of contact.
Eyes:	There may be irritation and redness.
Delayed / Immediate 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 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

### No data available.

12.6 Other adverse effects

No data available.

#### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

#### Product

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

#### Contaminated Packaging

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

#### 14. TRANSPORT INFORMATION

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

#### 14.1 UN-Number

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

#### 14.2 UN proper shipping name

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

#### 14.3 Transport hazard class(es)

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

#### 14.4 Packaging group

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

#### 14.5 Environmental hazards

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

#### 14.6 Special precautions for users

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

#### Additional Transport Information

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

#### 15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Not applicable. SARA 313: Not applicable. SARA 311/312: Not applicable.

CERCLA Reportable Quantity : Not applicable. California Proposition 65 :

#### 15.2 Chemical safety assessment

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

#### 16. OTHER INFORMATION

#### Further Information

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

End of safety data sheet

# Safety Data Sheet

1.	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE CO	OMPANY/UNDERTAKIN	G				
1.1	Product Identifiers							
	Product Name:	Human IL-6 Standard (contains Proclin 300	Mixture)					
1.2	Relevant identified us	ses of the substance or mixture and uses advise	ed 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 Brand	Telephone:	1-800-343-7475				
		614 McKinley Place NE	Fax:	1-612-656-4400				
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com				
			Email address:	info@bio-techne.com				
	Canada:	461 North Service Rd West	Telephone:	1-855-668-8722				
		Unit B37	Fax:	902-827-6402				
		Oakville, ON L6M 2V5	Email address:	Canada.inquiries@bio-techne.com				
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449				
	onited 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	Fax:	76 (021)52371001				
		Shanghai, China	Email address:	techsupport.cn@bio-techne.com				
1.4	Emergency Telephone							
	Emergency Tel: For che	emical emergency, spill, leak, fire, exposure, or ac	cident call CHEMTREC day	y or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-550				
	Bio-Techne Tel: US: 61	2-379-2956 or 800-343-7475 / Europe: +44(0)123	35-529449 / China 86-400-8	821-3475				
2.	HAZARDS IDENTIFIC	ATION						
2.1	Classification of the s	substance or mixture						
	Classification accordi	ing to Regulation (EC) No 1272/2008 [GHS/CLP	] or 29 CFR 1910.1200 [O	SHA]				
	Sensitization, skin - Ca	tegory 1						
2.2	Label Elements							
	Labeling according to	Regulation (EC) No 1272/2008 [GHS/CLP]						
	Pictogram(s):	()						
	Signal Word:	Warning						
	Hazard Statement(s):							
	H317	May cause an allergic skin reaction.						
	Precautionary Stateme	Precautionary Statement(s):						
	P261	Avoid breathing dust/fumes/gas/misi						
	P272 P280	Contaminated work clothing should Wear protective gloves/protective clo						
	P302+352	IF ON SKIN: Wash with plenty of so	ap and water.					
	P333+313 P362+P364	If skin irritation or rash occurs: Get n Take off contaminated clothing and v						
2.3	Other Hazards - None	Take on contaminated clothing and	wash it before reuse.					
3.	COMPOSITION/INFO	ORMATION ON INGREDIENTS						
3.1	Substances							
	Not applicable.							
<u> </u>	Mixturee							

#### Mixtures 3.2

2	Mixtures							
	Component	CAS No.	EC No.	Index No.	Classification	Conc.		
	Proclin 300 Mixture <0.1% (activ	e 96118-96-6			H317			

ingredients)

Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One (26172-55-4) and 2-Methyl-4-Isothiazolin-3- One (2682-20-4)

55965-84-9

613-167-00-5

< 0.1 %

4.	FIRST AID MEASURES
l.1	Description of first aid measures
	General Advice
	Consult a doctor and show this safety data sheet.
	If Inhaled
	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
	In Case of Skin Contact
	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor. In Case of Eye Contact
	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
	If Swallowed
	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.
4.2	Most important symptoms and effects, both acute and delayed
	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
4.3	Indication of immediate medical attention and special treatment needed
	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
5.	FIRE-FIGHTING MEASURES
5.1	Extinguishing Media
	Suitable extinguishing media
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2	Special hazards arising from the substance or mixture
	In combustion, may emit toxic fumes.
5.3	Precautions for fire-fighters
	Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.
6.	ACCIDENTIAL RELEASE MEASURES
6.1	Personal precautions, protective equipment and emergency procedures
	Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.
6.2	Environmental precautions
	Do not let product enter drains.
6.3	Methods and materials for containment and cleaning up
	Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.
6.4	Reference to other sections
	For required PPE see section 8. For disposal see section 13.
7.	HANDLING AND STORAGE
7.1	Precautions for safe handling
	Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.
7.2	Conditions for safe storage, including any incompatibilities
	Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.
7.3	Specific end uses
	Not applicable.
3.	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 Flammability or			
	Explosive Limits	No data available.	Oxidizing Properties	No data available.
9.2	Other safety information			

No data available.

#### 10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

#### 10.4 Conditions to avoid

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

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

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

End of safety data sheet.

# Safety Data Sheet

	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE CO	MPANY/UNDERTAKIN	G
.1	Product Identifiers			
	Product Name:	Human IL-6 Conjugate (contains Proclin 300	) Mixture)	
.2	Relevant identified us	ses of the substance or mixture and uses adviso	ed against	
	Identified Uses:	For research use only.	-	
.3		r of the safety data sheet		
-	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475
	e empany.	614 McKinley Place NE	Fax:	1-612-656-4400
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com
			Email address:	info@bio-techne.com
	Canada:	461 North Service Rd West	Telephone:	1-855-668-8722
	Cundua	Unit B37	Fax:	902-827-6402
		Oakville, ON L6M 2V5	Email address:	Canada.inquiries@bio-techne.com
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449
		Abingdon Science Park Abingdon, OX14 3NB	Fax: Email address:	44 (0)1235 533420 info.emea@bio-techne.com
		, longaon, extra orde		
	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
			-	y or night: Within U.S. 1-800-262-8200 Worldwide 1-703-74 821-3475
	Emergency Tel: For ch	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123	-	
	Emergency Tel: For ch Bio-Techne Tel: US: 61	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 CATION	-	-
1	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 CATION	5-529449 / China 86-400-8	321-3475
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 CATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP]	5-529449 / China 86-400-8	321-3475
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 CATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP]	5-529449 / China 86-400-8	321-3475
1	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 CATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP]	5-529449 / China 86-400-8	321-3475
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 CATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1	5-529449 / China 86-400-8	321-3475
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 CATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1	5-529449 / China 86-400-8	321-3475
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s):	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EXATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 D Regulation (EC) No 1272/2008 [GHS/CLP]	5-529449 / China 86-400-8	321-3475
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word:	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EXATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 D Regulation (EC) No 1272/2008 [GHS/CLP]	5-529449 / China 86-400-8	321-3475
1	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s):	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 CATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1	5-529449 / China 86-400-8	321-3475
1	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Stateme P261	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 P Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/mist	5-529449 / China 86-400-8	5HA]
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Statement P261 P272	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EXTION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 P Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/mist Contaminated work clothing should	/vapors/spray. not be allowed out of the	shaj workplace.
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Stateme P261	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 P Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/mist	/vapors/spray. not be allowed out of the atomic and be protection/face p	shaj workplace.
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Stateme P261 P272 P280 P302+352 P303+313	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EXTION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 b Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/misis Contaminated work clothing should Wear protective gloves/protective clot IF ON SKIN: Wash with plenty of soz If skin irritation or rash occurs: Get m	/vapors/spray. not be allowed out of the pand water. ledical advice/attention.	shaj workplace.
2	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Stateme P261 P272 P280 P302+352	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EXTION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 P Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/missi Contaminated work clothing should Wear protective gloves/protective clot IF ON SKIN: Wash with plenty of soa If skin irritation or rash occurs: Get m Take off contaminated clothing and v	/vapors/spray. not be allowed out of the pand water. ledical advice/attention.	shaj workplace.
2	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261 P272 P280 P302+352 P333+313 P362+P364 Other Hazards - None	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EXTION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 P Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/mist Contaminated work clothing should Wear protective gloves/protective clo IF ON SKIN: Wash with plenty of soa If skin irritation or rash occurs: Get m Take off contaminated clothing and w	/vapors/spray. not be allowed out of the pand water. ledical advice/attention.	shaj workplace.
3	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Statement P261 P272 P280 P302+352 P333+313 P362+P364 Other Hazards - None	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EXTION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 P Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/missi Contaminated work clothing should Wear protective gloves/protective clot IF ON SKIN: Wash with plenty of soa If skin irritation or rash occurs: Get m Take off contaminated clothing and v	/vapors/spray. not be allowed out of the pand water. ledical advice/attention.	shaj workplace.
	Emergency Tel: For ch Bio-Techne Tel: US: 61 HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261 P272 P280 P302+352 P333+313 P362+P364 Other Hazards - None	emical emergency, spill, leak, fire, exposure, or ac 12-379-2956 or 800-343-7475 / Europe: +44(0)123 EXTION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 P Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/mist Contaminated work clothing should Wear protective gloves/protective clo IF ON SKIN: Wash with plenty of soa If skin irritation or rash occurs: Get m Take off contaminated clothing and w	/vapors/spray. not be allowed out of the pand water. ledical advice/attention.	shaj workplace.

#### Mixtures 3.2

Mixtures								
Component	CAS No.	EC No.	Index No.	Classification	Conc.			
Proclin 300 Mixture <0.1% (active	96118-96-6			H317				

ingredients)

Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One (26172-55-4) and 2-Methyl-4-Isothiazolin-3- One (2682-20-4)

55965-84-9

613-167-00-5

< 0.1 %

4.	FIRST AID MEASURES
l.1	Description of first aid measures
	General Advice
	Consult a doctor and show this safety data sheet.
	If Inhaled
	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
	In Case of Skin Contact
	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor. In Case of Eye Contact
	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
	If Swallowed
	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.
4.2	Most important symptoms and effects, both acute and delayed
	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
4.3	Indication of immediate medical attention and special treatment needed
	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
5.	FIRE-FIGHTING MEASURES
5.1	Extinguishing Media
	Suitable extinguishing media
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2	Special hazards arising from the substance or mixture
	In combustion, may emit toxic fumes.
5.3	Precautions for fire-fighters
	Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.
6.	ACCIDENTIAL RELEASE MEASURES
6.1	Personal precautions, protective equipment and emergency procedures
	Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.
6.2	Environmental precautions
	Do not let product enter drains.
6.3	Methods and materials for containment and cleaning up
	Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.
6.4	Reference to other sections
	For required PPE see section 8. For disposal see section 13.
7.	HANDLING AND STORAGE
7.1	Precautions for safe handling
	Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.
7.2	Conditions for safe storage, including any incompatibilities
	Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.
7.3	Specific end uses
	Not applicable.
3.	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 Flammability or			
	Explosive Limits	No data available.	Oxidizing Properties	No data available.
9.2	Other safety information			

No data available.

#### 10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

#### 10.4 Conditions to avoid

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

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

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

End of safety data sheet.

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

1.	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF	THE COMPANY/UNDERTAKIN	G			
1.1	Product Identifiers						
	Product Name:	Assay Diluent RD1W (contains Proc	lin 300 mixture)				
1.2	Relevant identified us	ses of the substance or mixture and use	s advised against				
	Identified Uses:	For research use only.					
1.3	Details of the supplie	r of the safety data sheet					
	Company:	R&D Systems, Inc. a Bio-Techne B	rand 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			
	Onneu 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 Shanghai, China	e Fax: Email address:	76 (021)52371001 techsupport.cn@bio-techne.com			
1.4	Emergency Telephon	-	Email address.				
			e or accident call CHEMTREC da	y or night: Within U.S. 1-800-262-8200 Wo	rldwide 1-703-741-5500		
		12-379-2956 or 800-343-7475 / Europe: +4					
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 - Ca	tegory 1					
2.2	Label Elements						
	Labeling according to	Regulation (EC) No 1272/2008 [GHS/CI	_P]				
	Pictogram(s):	()					
	Signal Word:	Warning					
	Hazard Statement(s):						
	H317	May cause an allergic skin r	eaction.				
	Precautionary Stateme	Precautionary Statement(s):					
	P261	• • • • • • • • • • • • • • • • • • • •					
	P272		should not be allowed out of the				
	P280 P302+352	Wear protective gloves/prote IF ON SKIN: Wash with plen	ective clothing/eye protection/face p tv of soap and water.	protection.			
	P333+313	If skin irritation or rash occur	s: Get medical advice/attention.				
	P362+P364 P321						
	P363	Wash contaminated clothing	before reuse.				
	P501		er in accordance with local/regional	/national/international regulations.			
2.3	Other Hazards - None						
3.	COMPOSITION/INFO	ORMATION ON INGREDIENTS					
3.1	Substances						
	Not applicable.						
3.2	Mixtures						
	Component	CAS No. EC	No. Index No	Classification	Conc.		

H317

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	Lyophilized white powder or clear liquid	Vapor Pressure	No data available.
	Odor	Little to none	Vapor Density	No data available.
	Odor Threshold	No data available.	Relative Density	No data available.
	pH	No data available.	Solubility	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 Flammability or			
	Explosive Limits	No data available.	Oxidizing Properties	No data available.
9.2	Other safety information			

No data available.

#### 10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

#### 10.4 Conditions to avoid

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.

End of safety data sheet.

# Safety Data Sheet

Version 4.0 SDS Revision Date 10/04/2023 www.rndsystems.com

	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE C	OMPANY/UNDERTAKIN	G		
.1	Product Identifiers					
	Product Name:	Calibrator Diluent RD5T (contains Proclin 3	300 Mixture)			
2	Relevant identified us	es of the substance or mixture and uses advis	sed against			
	Identified Uses:	For research use only.				
.3	Details of the supplier	of the safety data sheet				
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475		
		614 McKinley Place NE	Fax:	1-612-656-4400		
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com		
			Email address:	info@bio-techne.com		
	Canada:	461 North Service Rd West	Telephone:	1-855-668-8722		
		Unit B37	Fax:	902-827-6402		
		Oakville, ON L6M 2V5	Email address:	Canada.inquiries@bio-techne.com		
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449		
		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		
.4	Emergency Telephone	Number				
	Emergency Tel: For che	emical emergency spill leak fire exposure or a	ccident call CHEMTREC day	y or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-5500		
		2-379-2956 or 800-343-7475 / Europe: +44(0)12	-	-		
2.	HAZARDS IDENTIFIC	ATION				
.1	Classification of the substance or mixture					
	Classification accordi	ng to Regulation (EC) No 1272/2008 [GHS/CLF	P] or 29 CFR 1910.1200 [OS	SHA]		
	Sensitization, skin - Cat	egory 1				
.2	Label Elements					
	Labeling according to					
		Regulation (EC) No 1272/2008 [GHS/CLP]				
	Pictogram(s):	Regulation (EC) No 1272/2008 [GHS/CLP]				
	Pictogram(s): Signal Word:	Regulation (EC) No 1272/2008 [GHS/CLP]				
		< <u>1</u> >				
	Signal Word:	< <u>1</u> >				
	Signal Word: Hazard Statement(s):	Warning May cause an allergic skin reaction				
	Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261	Warning May cause an allergic skin reaction ht(s): Avoid breathing dust/fumes/gas/mis	st/vapors/spray.			
	Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261 P272	Warning May cause an allergic skin reaction nt(s): Avoid breathing dust/fumes/gas/mis Contaminated work clothing should	st/vapors/spray. I not be allowed out of the			
	Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261	Warning May cause an allergic skin reaction ht(s): Avoid breathing dust/fumes/gas/mis	st/vapors/spray. I not be allowed out of the lothing/eye protection/face p			
	Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261 P272 P280 P302+352 P303+313	Warning May cause an allergic skin reaction ht(s): Avoid breathing dust/fumes/gas/mis Contaminated work clothing should Wear protective gloves/protective c IF ON SKIN: Wash with plenty of sc If skin irritation or rash occurs: Get t	st/vapors/spray. I not be allowed out of the lothing/eye protection/face p sap and water. medical advice/attention.			
3	Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261 P272 P280 P302+352	Warning May cause an allergic skin reaction nt(s): Avoid breathing dust/fumes/gas/mis Contaminated work clothing should Wear protective gloves/protective c IF ON SKIN: Wash with plenty of sc	st/vapors/spray. I not be allowed out of the lothing/eye protection/face p sap and water. medical advice/attention.			
	Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261 P272 P280 P302+352 P333+313 P362+P364 Other Hazards - None	Warning May cause an allergic skin reaction nt(s): Avoid breathing dust/fumes/gas/mis Contaminated work clothing should Wear protective gloves/protective c IF ON SKIN: Wash with plenty of sc If skin irritation or rash occurs: Get I Take off contaminated clothing and	st/vapors/spray. I not be allowed out of the lothing/eye protection/face p sap and water. medical advice/attention.			
5.	Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261 P272 P280 P302+352 P302+352 P302+353 P362+P364 Other Hazards - None COMPOSITION/INFO	Warning May cause an allergic skin reaction ht(s): Avoid breathing dust/fumes/gas/mis Contaminated work clothing should Wear protective gloves/protective c IF ON SKIN: Wash with plenty of sc If skin irritation or rash occurs: Get t	st/vapors/spray. I not be allowed out of the lothing/eye protection/face p sap and water. medical advice/attention.			
•	Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261 P272 P280 P302+352 P302+352 P302+352 P302+354 Other Hazards - None COMPOSITION/INFO Substances	Warning May cause an allergic skin reaction nt(s): Avoid breathing dust/fumes/gas/mis Contaminated work clothing should Wear protective gloves/protective c IF ON SKIN: Wash with plenty of sc If skin irritation or rash occurs: Get I Take off contaminated clothing and	st/vapors/spray. I not be allowed out of the lothing/eye protection/face p sap and water. medical advice/attention.			
2.3 3. 3.1	Signal Word: Hazard Statement(s): H317 Precautionary Statemen P261 P272 P280 P302+352 P302+352 P302+353 P362+P364 Other Hazards - None COMPOSITION/INFO	Warning May cause an allergic skin reaction nt(s): Avoid breathing dust/fumes/gas/mis Contaminated work clothing should Wear protective gloves/protective c IF ON SKIN: Wash with plenty of sc If skin irritation or rash occurs: Get I Take off contaminated clothing and	st/vapors/spray. I not be allowed out of the lothing/eye protection/face p sap and water. medical advice/attention.			

#### 3.2 Mixtures

2	MIXLUI 65					
	Component	CAS No.	EC No.	Index No.	Classification	Conc.
	Proclin 300 Mixture <0.1% (active	96118-96-6			H317	

ingredients)

Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One (26172-55-4) and 2-Methyl-4-Isothiazolin-3- One (2682-20-4)

55965-84-9

613-167-00-5

< 0.1 %

4.	FIRST AID MEASURES
l.1	Description of first aid measures
	General Advice
	Consult a doctor and show this safety data sheet.
	If Inhaled
	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
	In Case of Skin Contact
	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor. In Case of Eye Contact
	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
	If Swallowed
	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.
4.2	Most important symptoms and effects, both acute and delayed
	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
4.3	Indication of immediate medical attention and special treatment needed
	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
5.	FIRE-FIGHTING MEASURES
5.1	Extinguishing Media
	Suitable extinguishing media
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2	Special hazards arising from the substance or mixture
	In combustion, may emit toxic fumes.
5.3	Precautions for fire-fighters
	Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.
6.	ACCIDENTIAL RELEASE MEASURES
6.1	Personal precautions, protective equipment and emergency procedures
	Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.
6.2	Environmental precautions
	Do not let product enter drains.
6.3	Methods and materials for containment and cleaning up
	Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.
6.4	Reference to other sections
	For required PPE see section 8. For disposal see section 13.
7.	HANDLING AND STORAGE
7.1	Precautions for safe handling
	Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.
7.2	Conditions for safe storage, including any incompatibilities
	Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.
7.3	Specific end uses
	Not applicable.
3.	EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1	Control parameters
	Components with workplace control parameters
	Contains no substances with occupational exposure limit values.
8.2	Exposure controls
	Appropriate Engineering Controls
	Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and
	eye wash station.

Personal Protective Equipment

#### Eye / Face Protection

Use appropriate safety glasses.

#### **Skin Protection**

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

#### Body Protection

Wear appropriate protective clothing.

#### **Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

	Appearance	Lyophilized white powder or clear liquid	Vapor Pressure	No data available.
	Odor	Little to none	Vapor Density	No data available.
	Odor Threshold	No data available.	Relative Density	No data available.
	pH	No data available.	Solubility	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 Flammability or			
	Explosive Limits	No data available.	Oxidizing Properties	No data available.
9.2	Other safety information			

No data available.

#### 10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

#### 10.4 Conditions to avoid

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.
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Ingestion:	There may be irritation of the throat.
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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

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

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

End of safety data sheet.

1.1					
	Product Identifiers				
	Product Name:	Calibrator Diluent RD6F (contains Soc	ium Azide < 0.1%)		
.2	Relevant identified use	s 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	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 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	
		Unit 1901, Raffles Changning Office	Fax:	76 (021)52371001	
		Shanghai, China	Email address:	techsupport.cn@bio-techne.com	
1.4	Emergency Telephone	Number			
	Emergency Tel: For cher	nical emergency, spill, leak, fire, exposure,	or accident call CHEMTREC day	y 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 86-400-8	321-3475	
			. ,		
2.	HAZARDS IDENTIFICATION				
	HAZARDS IDENTIFICA	TION			
	HAZARDS IDEN I IFICA				
	Classification of the su		/CLP] or 29 CFR 1910.1200 [O	SHA]	
	Classification of the su Classification accordin	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS		SHA] C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH	A]
2.1	Classification of the su Classification accordin	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS		-	A]
2.1	Classification of the su Classification accordin This substance does not Label Elements	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS meet the classification criteria of the EC D	rectives 67/548/EED, 1999/45/E	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH	A]
2.1 2.2	Classification of the su Classification accordin This substance does not Label Elements	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS	rectives 67/548/EED, 1999/45/E	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH	A]
2.1 2.2 2.3	Classification of the su Classification accordin This substance does not Label Elements The product does not ne Other Hazards - None	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS meet the classification criteria of the EC D ed to be labelled in accordance with EC dir	rectives 67/548/EED, 1999/45/E	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH	A]
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2.1 2.2 2.3 3. 3.1	Classification of the su Classification accordin This substance does not Label Elements The product does not ne Other Hazards - None COMPOSITION/INFOR Substances Not applicable. Mixtures Component	bstance or mixture         g to Regulation (EC) No 1272/2008 [GHS         meet the classification criteria of the EC D         ed to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC N         26628-22-8       247-85	rectives 67/548/EED, 1999/45/E ectives or respective national law o. Index No.	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH /s. Classification	Conc.
2.1 2.2 3. 3.1 3.2 4.	Classification of the su Classification accordin This substance does not Label Elements The product does not ne Other Hazards - None COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1%	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS meet the classification criteria of the EC D ed to be labelled in accordance with EC dir RMATION ON INGREDIENTS CAS No. EC N 26628-22-8 247-83 S	rectives 67/548/EED, 1999/45/E ectives or respective national law o. Index No.	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH /s. Classification	Conc.
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2.1 2.2 3. 3.1 3.2	Classification of the su Classification accordin This substance does not Label Elements The product does not ne Other Hazards - None COMPOSITION/INFOF Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURE Description of first aid General Advice	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS meet the classification criteria of the EC D ed to be labelled in accordance with EC dir RMATION ON INGREDIENTS CAS No. EC N 26628-22-8 247-83 S	rectives 67/548/EED, 1999/45/E ectives or respective national law o. Index No.	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH /s. Classification	Conc.
2.1 2.2 3. 3.1 3.2 4.	Classification of the su Classification accordin This substance does not Label Elements The product does not ne Other Hazards - None COMPOSITION/INFOF Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURE Description of first aid General Advice	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS meet the classification criteria of the EC D ed to be labelled in accordance with EC dir RMATION ON INGREDIENTS CAS No. EC N 26628-22-8 247-83 S measures	rectives 67/548/EED, 1999/45/E ectives or respective national law o. Index No.	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH /s. Classification	Conc.
2.1 2.2 3. 3.1 3.2 4.	Classification of the su Classification accordin This substance does not Label Elements The product does not ne Other Hazards - None COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURE Description of first aid General Advice Consult a doctor and sho If Inhaled	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS meet the classification criteria of the EC D ed to be labelled in accordance with EC dir RMATION ON INGREDIENTS CAS No. EC N 26628-22-8 247-8 S measures bw this safety data sheet.	rectives 67/548/EED, 1999/45/E ectives or respective national law o. Index No. 52-1 011-004-00	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH /s. Classification	Conc.
2.1 2.2 3. 3.1 3.2 4.	Classification of the su Classification accordin This substance does not Label Elements The product does not ne Other Hazards - None COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURE Description of first aid General Advice Consult a doctor and sho If Inhaled Remove to fresh air and In Case of Skin Contac	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS meet the classification criteria of the EC D ed to be labelled in accordance with EC dir RMATION ON INGREDIENTS CAS No. EC N 26628-22-8 247-8 S measures ow this safety data sheet. monitor breathing. If breathing becomes dir t	rectives 67/548/EED, 1999/45/E ectives or respective national law o. Index No. 52-1 011-004-00 ficult, give oxygen. If breathing s	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH /s. Classification -7 Not hazardous at this concentration	<b>Conc.</b> < 0.1 <sup>1</sup>
2.1 2.2 3. 3.1 3.2 4.	Classification of the su Classification accordin This substance does not Label Elements The product does not ne Other Hazards - None COMPOSITION/INFOR Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURE Description of first aid General Advice Consult a doctor and sho If Inhaled Remove to fresh air and In Case of Skin Contac	bstance or mixture g to Regulation (EC) No 1272/2008 [GHS meet the classification criteria of the EC D ed to be labelled in accordance with EC dir RMATION ON INGREDIENTS CAS No. EC N 26628-22-8 247-8 S measures bw this safety data sheet. monitor breathing. If breathing becomes dir t rith copious amounts of soap and water for	rectives 67/548/EED, 1999/45/E ectives or respective national law o. Index No. 52-1 011-004-00 ficult, give oxygen. If breathing s	C, 1272/20008 [CLP], GHS or 29 CFR 1910.1200 [OSH vs. Classification -7 Not hazardous at this concentration tops, give artificial respiration. Consult a doctor.	<b>Conc.</b> < 0.19

If Swallowed

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

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

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

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

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

#### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing Media

#### Suitable extinguishing media

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

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

In combustion, may emit toxic fumes.

#### 5.3 Precautions for fire-fighters

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

#### 6. ACCIDENTIAL RELEASE MEASURES

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

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

#### 6.2 Environmental precautions

Do not let product enter drains.

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

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

#### 6.4 Reference to other sections

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

#### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

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

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

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

#### 7.3 Specific end uses

Not applicable.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

#### Appropriate Engineering Controls

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

#### Personal Protective Equipment

#### Eye / Face Protection

Use appropriate safety glasses.

#### **Skin Protection**

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

Wear appropriate protective clothing.

#### **Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

	Appearance		Lyophilized white powder or clear liquid	Vapor Pressure	No data available.
	Odor		Little to none	Vapor Density	No data available.
	Odor Threshold		No data available.	Relative Density	No data available.
	pH		No data available.	Solubility	No data available.
	Melting / Freezing Point		No data available.	Partition Coefficient	No data available.
	Boiling Point / Range Flash Point		No data available. No data available.	Auto ignition Temperature	No data available. No data available.
	Evaporation Rate		No data available.	Decomposition Temperature	No data available.
	Flammability (Solid, Gas)		No data available.	Viscosity Explosive Properties	No data available.
	Upper / Lower Flammabilit	tvor			
	Explosive Limits	.,	No data available.	Oxidizing Properties	No data available.
	-				
9.2	Other safety information				
	No data available.				
10.	STABILITY AND REACTI	IVITY			
10.1	Reactivity				
	-	I transport or stor	and conditions		
	Stable under recommended	i transport or stor	age conditions.		
10.2	Chemical stability				
	Stable under recommended	I storage conditio	ns.		
10.3	Possibility of hazardous re	eactions			
	Hazardous reactions will not	t occur under nor	mal transport or storage conditions. Decom	position may occur on exposure to conditi	ons or materials listed below.
10.4	Conditions to avoid				
	Heat, moisture.				
10.5	Incompatible materials				
	Strong acids/alkalis, strong	ovidizing/reducin	a agents		
40.0		-	g agents.		
10.6	Hazardous decomposition				
	Strong acids/alkalis, strong o	oxidizing/reducin	g agents.		
11.	TOXICOLOGICAL INFOR	RMATION			
11.1	Information on toxicologic	cal effects			
	Acute Toxicity				
	Classified based on availabl	le data.			
	Skin Corrosion / Irritation				
	Classified based on availabl				
	Serious Eye Damage / Irrit				
	Classified based on availabl	le data.			
	Respiratory or Skin Sensit	tization			
	Classified based on availabl	le data.			
	Germ Cell Mutagenicity				
	Classified based on availabl	le data.			
	Carcinogenicity				
	Classified based on availabl	le data.			
	Reproductive Toxicity				
	Classified based on availabl	lo data			
	Specific Target Organ Tox		posure		
	Classified based on availabl				
	Specific Target Organ Tox	cicity - Repeated	l Exposure		
	Classified based on availabl	le data.			
	Aspiration Hazard				
	Classified based on availabl	le data.			
	Symptoms / Routes of Exp	posure			
	Inhalation:		ritation of the throat with a feeling of tightne	ss in the chest.	
	Ingestion:	There may be in	ritation of the throat.		
	Skin:		ild irritation at the site of contact.		
	Eyes:		ritation and redness.		
	-	-			
	Delayed/Immediate Effects:	. NO KHOWH SYMP	лонь.		

#### 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

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

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

End of safety data sheet.

# Safety Data Sheet

1.	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING						
1.1	Product Identifiers						
	Product Name:	Wash Buffer Concentrate (contains Proclin 3	300 Mixture)				
1.2	Relevant identified us	ses of the substance or mixture and uses advis	ed against				
	Identified Uses:	For research use only.	-				
1.3	Details of the supplie	r of the safety data sheet					
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475			
	company	614 McKinley Place NE	Fax:	1-612-656-4400			
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com			
			Email address:	info@bio-techne.com			
	Canada:	461 North Service Rd West	Telephone:	1-855-668-8722			
		Unit B37	Fax:	902-827-6402			
		Oakville, ON L6M 2V5	Email address:	Canada.inquiries@bio-techne.com			
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449			
		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 Number						
	Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night:						
	US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475						
2.	HAZARDS IDENTIFICATION						
2.1	Classification of the substance or mixture						
	Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]						
	Sensitization, skin - Category 1						

#### 2.

2.2	Label Elements		
	Labeling according to R	egulation (EC) No 1272/2008 [GHS/CLP]	
	Pictogram(s):		
	Signal Word:	Warning	
	Hazard Statement(s):		
	H317	May cause an allergic skin reaction.	
	Precautionary Statement(	5):	
	P261 P272 P280 P302+352 P333+313 P362+P364	Avoid breathing dust/fumes/gas/mist/vapours/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.	
2.3	Other Hazards - None		
3.	COMPOSITION/INFORI	MATION ON INGREDIENTS	
3.1	Substances		
	Not applicable.		
3.2	Mixtures		

#### 3.2 Mixtures

Component	CAS No.	EC No.	Index No.	Classification	Conc.
Proclin 300 Mixture <0.1	% (active 96118-96-6			H317	

ingredients)

Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One

(26172-55-4) and 2-Methyl-4-Isothiazolin-3- One (2682-20-4) 55965-84-9

613-167-00-5

4.	FIRST AID MEASURES
4.1	Description of first aid measures
	General Advice
	Consult a doctor and show this safety data sheet.
	If Inhaled
	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
	In Case of Skin Contact Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
	In Case of Eye Contact
	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
	If Swallowed
	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.
4.2	Most important symptoms and effects, both acute and delayed
	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
4.3	Indication of immediate medical attention and special treatment needed
	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
5.	FIRE-FIGHTING MEASURES
5.1	Extinguishing Media
	Suitable extinguishing media
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2	Special hazards arising from the substance or mixture
	In combustion, may emit toxic fumes.
5.3	Precautions for fire-fighters
	Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.
6.	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
7.2	or repeated exposure. Conditions for safe storage, including any incompatibilities
1.2	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
	Annousiete Engineering Controle
	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

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.

#### PHYSICAL AND CHEMICAL PROPERTIES 9.

#### 9.1 Information on basic physical and chemical properties

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

### 9.2

No data available.

#### STABILITY AND REACTIVITY 10.

#### 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.

#### Incompatible materials 10.5

Strong acids/alkalis, strong oxidising/reducing agents.

#### Hazardous decomposition products 10.6

Strong acids/alkalis, strong oxidising/reducing agents.

#### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data

#### Skin Corrosion / Irritation

Classified based on available data

#### Serious Eye Damage / Irritation

Classified based on available data

**Respiratory or Skin Sensitization** 

Classified based on available data

#### Germ Cell Mutagenicity

Classified based on available data

#### Carcinogenicity

Classified based on available data

#### **Reproductive Toxicity**

Classified based on available data

#### Specific Target Organ Toxicity - Single Exposure

Classified based on available data

#### Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data

#### **Aspiration Hazard**

Classified based on available data

#### Symptoms / Routes of Exposure

Inhalation:	There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	There may be irritation of the throat.
Skin:	There may be mild irritation at the site of contact.
Eyes:	There may be irritation and redness.

Delayed / Immediate 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 Bioaccumulative potential No data available.

# 12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

#### No data available.

#### 12.6 Other adverse effects

No data available.

#### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

#### Product

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

#### Contaminated Packaging

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

#### 14. TRANSPORT INFORMATION

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

#### 14.1 UN-Number

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

#### 14.2 UN proper shipping name

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

#### 14.3 Transport hazard class(es)

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

#### 14.4 Packaging group

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

#### 14.5 Environmental hazards

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

#### 14.6 Special precautions for users

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

#### Additional Transport Information

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

#### 15. REGULATORY INFORMATION

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

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

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

#### 15.2 Chemical safety assessment

#### 16. OTHER INFORMATION

#### **Further Information**

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

End of safety data sheet



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

1.1 Product Identifiers Product Name: Color Reagent A 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified Uses: For research use only. Details of the supplier of the safety data sheet 1.3 1-800-343-7475 Company: R&D Systems, Inc. a Bio-Techne Brand Telephone: 614 McKinley Place NE 1-612-656-4400 Fax: Minneapolis, MN 55413, USA Internet: www.rndsvstems.com Email address: info@bio-techne.com 21 Canmotor Avenue Telephone: 1-855-668-8722 Canada: Toronto, Ontario M8Z4E6 Fax: 902-827-6402 Canada Email address: Canada.inquiries@bio-techne.com 19 Barton Lane 44 (0)1235 529449 United Kingdom: Telephone: Abingdon Science Park 44 (0)1235 533420 Fax: Abingdon, OX14 3NB Email address: info.emea@bio-techne.com China: 1193 Changning Road Telephone: 86-400-821-3475 Unit 1901, Raffles City Changning Office Fax: 76 (021) 52371001 Shanghai Email address techsupport.cn@bio-techne.com 1.4 **Emergency Telephone Number** Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call Bio-Techne day or night: Bio-Techne Tel: US:612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 HAZARDS IDENTIFICATION 2. 2.1 Classification of the substance or mixture This substance does not meet the classification criteria of the EC Directives 67/548/EEC, 1999/45/EC, 1272/2008 [CLP], GHS or 29 CFR 1910.1200 [OSHA]. 2.2 Label Elements The product does not need to be labelled in accordance with EC directives or respective national laws. 2.3 Other Hazards - None 3. COMPOSITION/INFORMATION ON INGREDIENTS 3.1 Substances Not applicable. 3.2 Mixtures This product does not contain hazardous chemicals at concentrations of 1% or greater. This product is not known to contain carcinogens at concentrations of 0.1% or greater. 4. FIRST AID MEASURES Description of first aid measures 4.1 **General Advice** Consult a doctor and show this safety data sheet. If Inhaled Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor. In Case of Skin Contact Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor. In Case of Eve Contact Flush with copious amounts of water for at least 15 minutes. Consult a doctor. If Swallowed Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor. Most important symptoms and effects, both acute and delayed 4.2 To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. Indication of immediate medical attention and special treatment needed 4.3 Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

#### 5.1 Extinguishing Media

#### Suitable extinguishing media

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

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

In combustion, may emit toxic fumes.

#### 5.3 Precautions for fire-fighters

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

#### 6. ACCIDENTIAL RELEASE MEASURES

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

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

#### 6.2 Environmental precautions

Do not let product enter drains.

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

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

#### 6.4 Reference to other sections

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

#### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

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

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

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

#### 7.3 Specific end uses

Not applicable.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

#### Appropriate Engineering Controls

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

#### Personal Protective Equipment

Eye / Face Protection

Use appropriate safety glasses.

#### **Skin Protection**

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

#### **Body Protection**

Wear appropriate protective clothing.

#### **Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

Appearance	Lyophilized white powder or clear liquid.	Vapor Pressure	No data available.
Odor	Little to none.	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
рН	No data available.	Solubility	No data available.
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Autoignition Temperature	No data available.
Flash Point	No data available.	Decomposition Temperature	No data available.
Evaporation Rate	No data available.	Viscosity	No data available.
Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.

	Upper / Lower Flammabil Explosive Limits	No data available.	Oxidizing Properties	No data available.			
.2	Other safety information						
	No data available.						
0.	STABILITY AND REACT	IVITY					
0.1	Reactivity						
	Stable under recommende	d transport or storage conditions.					
0.2	Chemical stability						
	Stable under recommende	d storage conditions.					
0.3	Possibility of hazardous	reactions					
	Hazardous reactions will n	ot occur under normal transport or storage conditio	ns. Decomposition may occur on exposure to cond	itions or materials listed below.			
D.4	Conditions to avoid						
	Heat, moisture.						
0.5	Incompatible materials						
	Strong acids/alkalis, strong	oxidizing/reducing agents.					
0.6	Hazardous decompositio	n products					
	Strong acids/alkalis, strong	oxidizing/reducing agents.					
1.	TOXICOLOGICAL INFO						
1.1	Information on toxicolog	cal effects					
	Acute Toxicity						
	Classified based on available data.						
	Skin Corrosion / Irritation						
	Classified based on available data.						
	Serious Eye Damage / Irritation						
	Classified based on availal						
	Respiratory or Skin Sens						
	Classified based on availal	ole data.					
	Germ Cell Mutagenicity						
	Classified based on availa	ole data.					
	Carcinogenicity						
	Classified based on availal	ole data.					
	Reproductive Toxicity						
	Classified based on availa						
	Specific Target Organ To	xicity - Single Exposure					
	Classified based on availa						
		xicity - Repeated Exposure					
	Classified based on availa	ole data.					
	Aspiration Hazard Classified based on available data.						
	Symptoms / Routes of Ex						
	Inhalation:	There may be irritation of the throat with a feeling	g or tigntness 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 Effect	s: No known symptoms.					
	Additional Information						
	Classified based on availa	ole data.					
2.	ECOLOGICAL INFORM	ATION					

Toxicity

No data available.

12.2 Persistence and degradability

No data available. 12.3

Bio accumulative potential No data available.

#### 12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

#### 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

#### Product

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

#### Contaminated Packaging

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

#### 14. TRANSPORT INFORMATION

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

#### 14.1 UN-Number

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

#### 14.2 UN proper shipping name

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

#### 14.3 Transport hazard class(es)

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

#### 14.4 Packaging group

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

#### 14.5 Environmental hazards

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

#### 14.6 Special precautions for users

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

#### Additional Transport Information

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

#### 15. REGULATORY INFORMATION

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

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

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

SARA 311/312: Not applicable.

CERCLA Reportable Quantity: Not applicable.

California Proposition 65: Not applicable.

#### 15.2 Chemical safety assessment

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

#### 16. OTHER INFORMATION

Further Information

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

End of safety data sheet



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

#### 1.1 Product Identifiers

Product Name: Color Reagent B (contains N,N-Dimethylformamide and Tetramethylbenzidine)

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

Identified Uses: For Research Use Only

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

Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475
	614 McKinley Place NE	Fax:	1-612-656-4400
	Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com
		Email address:	info@bio-techne.com
Canada:	461 North Service Rd West	Telephone:	1-855-668-8722
	Unit B37	Fax:	902-827-6402
	Oakville, ON L6M 2V5	Email address:	Canada.inquiries@bio-techne.com
United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449
	Abingdon Science Park	Fax:	44 (0)1235 533420
	Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com

#### 1.4 Emergency Telephone Number

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

#### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

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

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

#### 2.2 Label Elements

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

Pictogram(s):



Signal Word	Danger
Hazard statement(s) H312 + H332 H319 H350 H350 H360	Harmful in contact with skin or if inhaled. Causes serious eye irritation. May cause cancer. May damage fertility or the unborn child.
Precautionary statement(s)	
P201 P202 P210	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P233	Keep container tightly closed.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing mist or vapors.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Other Hazards - None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances
  - Not applicable.

#### 3.2 Mixtures

4.1

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

#### 4. FIRST AID MEASURES

Description of first aid measures

#### General Advice

Consult a doctor and show this safety data sheet.

#### If Inhaled

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

#### In Case of Skin Contact

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

#### In Case of Eye Contact

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

#### If Swallowed

Rinse mouth with water. After swallowing: immediately make victim drink water (two glasses at most). 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. Development of hazardous combustion gases or vapours possible in the event of fire.

#### 5.3 Precautions for fire-fighters

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

#### 6. ACCIDENTIAL RELEASE MEASURES

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

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

#### 6.2 Environmental precautions

Do not let product enter drains.

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

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

#### 6.4 Reference to other sections

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

#### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

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

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

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

#### 7.3 Specific end uses

Not applicable.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

#### Components with workplace control parameters

#### Occupational exposure limit values (Workplace Exposure Limits

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

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

#### **Human Health Values**

Relevant DNELs and other thres	hold Levels (EU REACH)				
Component	Endpoint	Threshold Level	Protection goal / route of exposure	Use in	Exposure time
N, N – Dimethylformamide CAS No. 68-12-2	DNEL	6 mg/m3	Human, inhalation	Worker (industry)	Chronic – system effects
		1,1 mg/kg bw/day	Human, dermal	Worker (industry)	Chronic – systemic effects

#### **Environmental Values**

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

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

#### **Personal Protective Equipment**

#### Eye / Face Protection

Use safety goggles with side protection and face shield

#### Skin Protection

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

#### **Body Protection**

Wear appropriate protective clothing.

#### **Respiratory Protection**

Use appropriate respiratory protection if adequate exhaust ventilation is absent.

#### **Environmental exposure controls**

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

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

Appearance	Liquid	Vapor Pressure	No data available.
Odor	No data available.	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
рН	No data available.	Solubility(ies)	No data available.
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Autoignition Temperature	No data available.
Flash Point	No data available.	Decomposition Temperature	No data available.
Evaporation Rate	No data available.	Viscosity	No data available.
Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.
Upper / Lower Flammability or Explosive Limits	No data available.	Oxidizing Properties	No data available.
Other safety information			

9.2

#### 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

Stable under recommended transport or storage conditions.

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

#### 10.4 Conditions to avoid

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

#### 10.5 Incompatible materials

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

#### 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidising/reducing agents.

#### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

#### Acute Toxicity

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

#### Skin Corrosion / Irritation

N,N-Dimethylformamide - Classified based on available data Tetramethylbenzidine - No data available. Serious Eye Damage / Irritation

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

#### **Respiratory or Skin Sensitization**

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

#### Germ Cell Mutagenicity

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

#### Carcinogenicity

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

#### **Reproductive Toxicity**

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

#### Specific Target Organ Toxicity - Single Exposure

Classified based on available data

#### Specific Target Organ Toxicity - Repeated Exposure

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

#### Aspiration Hazard

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

#### Symptoms / Routes of Exposure

Symptoms / Routes of	Exposure
Inhalation:	N,N-Dimethylformamide - Toxic if inhaled. May cause respiratory tract irritation.
	Tetramethylbenzidine - There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	N,N-Dimethylformamide - May be harmful if swallowed.
	Tetramethylbenzidine - There may be irritation of the throat.
Skin:	N,N-Dimethylformamide - May be harmful if absorbed through the skin. May cause skin irritation.
	Tetramethylbenzidine - There may be mild irritation at the site of contact.
Eves:	N.N-Dimethylformamide - Causes serious eve irritation.
	Tetramethylbenzidine - There may be irritation and redness.
Delayed / Immediate	N,N-Dimethylformamide - No known symptoms.
Effects:	Tetramethylbenzidine - No data available.

#### Additional Information

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

#### 12. ECOLOGICAL INFORMATION

#### 12.1 Toxicity

No data available.

12.2 Persistence and degradability No data available.

#### 12.3 Bioaccumulative potential

No data available.

#### 12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment No data available.

## 12.6 Other adverse effects No data available.

No data available.

#### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

#### Product

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

#### Contaminated Packaging

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

#### 14. TRANSPORT INFORMATION

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

#### 14.1 UN-Number

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

#### 14.2 UN proper shipping name

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

#### 14.3 Transport hazard class(es)

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

#### 14.4 Packaging group

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

#### 14.5 Environmental hazards

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

#### 14.6 Special precautions for users

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

#### Additional Transport Information

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

#### 15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): N,N-Dimethylformamide – Is Listed. Tetramethylbenzidine - Is Listed. SARA 313: Not applicable. SARA 311/312: Not applicable. CERCLA Reportable Quantity: Not applicable California Proposition 65:

N,N-Dimethylformamide



WARNING: This product can expose you to chemicals including N,N-Dimethylformamide, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov. Tetramethylbenzidine Not applicable.

#### **Country Specific Chemical Inventory Status**

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

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

#### Authorisation / Restriction according to EU REACH

Component	A	EACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
N,N-Dimethylformamide			Use restricted under specified conditions. See link for additional details. EU REACH Restriction - N,N- Dimethylformamide	SVHC Candidate list - (Toxic to Reproduction, Article 57c)

#### National Regulations

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

#### 15.2 Chemical safety assessment

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

#### 16. OTHER INFORMATION

#### Further Information

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

End of safety data sheet



1.	IDENTIFICATION OI	THE SUBSTANCE/MIXTURE AND OF THE C	OMPANY/UNDERTAKIN	IG
1.1	Product Identifiers			
	Product Name:	Stop Solution 2N Sulfuric Acid (contains Su	Ifuric Acid)	
1.2	Relevant identified us	ses of the substance or mixture and uses advise	d against	
	Identified Uses:	For Research Use Only		
1.3	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
1.4	Emergency Telephon	e Number		
	For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887 (collect calls accepted).			

#### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

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

Skin Corrosion - Category 1A Serious eye damage/eye irritation - Category 1 Acute aquatic toxicity – Category 3

#### 2.2 Label Elements

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

Labeling according	Labeling according to Regulation (EC) No 12/2/2008 [GHS/CLP]				
Pictogram(s):					
Signal Word:	Danger				
Hazard Statement(s)					
H314	Causes severe skin burns and eye damage				
H318	Causes serious eye damage				
H402	Harmful to aquatic life				
Precautionary Stater	nent(s):				
P264	Wash hands thoroughly after handling.				
P280	Wear protective gloves/protective clothing/eye protection/face protection.				
P302+352	IF ON SKIN: Wash with plenty of soap and water.				
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.				
P321	Specific treatment (see Section 4).				
P332+313	If skin irritation occurs: Get medical advice/attention.				
P337+313	If eve irritation persists: Get medical advice/attention.				
P362+364	Take off contaminated clothing and wash it before reuse.				
Other Hererde Nor					

2.3 Other Hazards - None

3.

3.1	Substances					
	Not applicable.					
3.2	Mixtures					
	Component	CAS No.	EC No.	Index No.	Classification	Conc.
	Sulfuric Acid	7664-93-9	231-639-5	016-020-00-8	H314 , H318, H402	= 9.8 %
	Water	7732-18-5	231-791-2			= 90.2 %

#### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

General Advice

Consult a doctor and show this safety data sheet.

COMPOSITION/INFORMATION ON INGREDIENTS

#### If Inhaled

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

#### In Case of Skin Contact

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

	In Case of Eye Contact
	Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.
	If Swallowed
	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician. Show this MSDS.
4.2	Most important symptoms and effects, both acute and delayed
	See Section 11.
4.3	Indication of immediate medical attention and special treatment needed
	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
5.	FIRE-FIGHTING MEASURES
5.1	Extinguishing Media
	Suitable extinguishing media
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2	Special hazards arising from the substance or mixture
	In case of fire, toxic and corrosive gases may be formed.
5.3	Precautions for fire-fighters
	Self contained breathing apparatus and full protective clothing must be worn in case of fire.
6.	ACCIDENTIAL RELEASE MEASURES
6.1	Personal precautions, protective equipment and emergency procedures
	Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
6.2	Environmental precautions
	Keep away from drains.
6.3	Methods and materials for containment and cleaning up
	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
6.4	Reference to other sections
	For required PPE see section 8. For disposal see section 13.
7.	HANDLING AND STORAGE
7.1	Precautions for safe handling
	Avoid inhalation of vapour or mist. Use normal measures for preventive fire protection.
7.2	Conditions for safe storage, including any incompatibilities
	Store in a cool, dry place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3	Specific end uses
	Not applicable.
8.	EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1	Control parameters
	Components with workplace control parameters
	Contains no substances with occupational exposure limit values.
8.2	Exposure controls
	Appropriate Engineering Controls
	Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.
	Personal Protective Equipment
	Eye / Face Protection
	Wear approved safety goggles.
	Skin Protection
	Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
	Body Protection
	Body Protection Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved. Wear suitable protective clothing as protection against splashing or contamination.
	Respiratory Protection

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

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

Appearance	Colorless liquid	Vapor Pressure	No data available.
Odor	Pungent	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
рН	~1	Solubility(ies)	Soluble
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Autoignition Temperature	No data available.
Flash Point	No data available.	Decomposition Temperature	No data available.
Evaporation Rate	No data available.	Viscosity	No data available.
Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.
Upper / Lower Flammability or Exp	losive		
Limits	No data available.	Oxidizing Properties	No data available.
Other safety information			
No data available.			

#### 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

9.2

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

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

#### 10.4 Conditions to avoid

Bases, Halides, Metals, Alkalis, Acetonitrile.

#### 10.5 Incompatible materials

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

#### 10.6 Hazardous decomposition products

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

#### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

#### Acute Toxicity

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

#### Skin Corrosion / Irritation

Can cause severe burns

#### Serious Eye Damage / Irritation

Can cause severe burns

#### Respiratory or Skin Sensitization

Classified based on available data

#### Germ Cell Mutagenicity

Classified based on available data

#### Carcinogenicity

Classified based on available data

#### **Reproductive Toxicity**

Classified based on available data

#### Specific Target Organ Toxicity - Single Exposure

Classified based on available data

#### Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data

#### Aspiration Hazard

Can cause severe burns

#### Symptoms / Routes of Exposure

Inhalation:	Harmful if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion:	Harmful if swallowed. Irritating to mouth, throat and stomach. Causes burns.
Skin:	Causes skin irritation / causes burns.
Eyes:	Causes serious eye irritation / causes burns.
Delayed / Immediate Effects:	Repeated skin contact with this product may lead to dermatitis while repeated inhalation may cause bronchitis, conjunctivitis, respiratory infections, emphysema and digestive disturbances. May cause erosion and discoloration of the teeth.

Classified based on available data

12. ECOLOGICAL INF	ORMATION
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#### 12.1 Toxicity

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

#### 12.2 Persistence and degradability

No data available.

#### 12.3 Bioaccumulative potential

No data available.

#### 12.4 Mobility in soil

No data available.

#### 12.5 Results of PBT and vPvB assessment

No data available

#### 12.6 Other adverse effects

No data available.

#### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

#### Product

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

#### **Contaminated Packaging**

Dispose in the same manner as unused product.

#### 14. TRANSPORT INFORMATION

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

## 14.1 UN-Number

8

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#### 14.2 UN proper shipping name

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

#### 14.3 Transport hazard class(es)

#### 14.4 Packaging group

#### 14.5 Environmental hazards

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

# 14.6 Special precautions for users No data available. Additional Transport Information No data available. No data available. 15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): On TSCA Inventory SARA 313: Not applicable. SARA 311/312: Acute health hazard CERCLA Reportable Quantity: 1000 lbs. California Proposition 65: 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.