

Safety Data Sheet

Version 3.0 SDS Revision Date 11/28//2023 www.rndsystems.com

1.	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE CO	MPANY/UNDERTAKING	3
1.1	Product Identifiers			
	Product Name:	Human Granzyme B Quantikine ELISA Kit		
	Catalog Number:	DGZB00		
	Components:	Human Granzyme B Microplate		
		Human Granzyme B Conjugate		
		Human Granzyme B Standard		
		Assay Diluent RD1W		
		Calibrator Diluent RD5P		
		Wash Buffer Concentrate		
		Color Reagent A		
		Color Reagent B		
		Stop Solution		
1.2	Relevant identified us	es of the substance or mixture and uses advise	dagainst	
	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:	21 Canmotor Ave	Telephone:	1-855-668-8722
		Toronto, ON M8Z 4E6 Canada	Fax:	902-827-6402
			Email address:	Canada.inquiries@bio-techne.com
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449
		Abingdon Science Park	Fax:	44 (0)1235 533420
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com
	China:	1193 Changning Road	Telephone:	86-400-821-3475
		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: 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.

RD SYSTEMS a biotechne brand

1. 1.1 1.2 1.3	IDENTIFICATION OF Product Identifiers Product Name:	THE SUBSTANCE/MIXTURE AND OF THE C	OMPANY/UNDERTAKING	
1.2				-
	Product Name:			
		Human Granzyme B Microplate		
1.3	Relevant identified use	es of the substance or mixture and uses advise	d against	
1.3	Identified Uses:	For Research Use Only		
	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	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 Unit 1901, Raffles Changning Office	Telephone: Fax:	86-400-821-3475 76 (021)52371001
		Shanghai , China	Email address:	techsupport.cn@bio-techne.com
1.4	Emergency Telephone	-		
	Emergency Tel:	US: 612-379-2956 or 800-343-7475 / Euro	pe: +44(0)1235-529449 / C	hina 86-400-821-3475
2.2 2.3	Label Elements The product does not no Other Hazards - None	eed to be labelled in accordance with EC directiv	es or respective national lav	ws.
3.	COMPOSITION/INFO	RMATION ON INGREDIENTS		
3.1	Substances			
	Not applicable.			
	Mixtures			
3.2	This product does not c	ontain hazardous chemicals at concentrations of	1% or greater. This produc	t is not known to contain carcinogens at concentrations of 0.1% or greater.
3.2				
3.2 4.	FIRST AID MEASURE	S		
4.	FIRST AID MEASURE			
4.	Description of first aid General Advice			
4.	Description of first aid General Advice	measures		
4.	Description of first aid General Advice Consult a doctor and sh If Inhaled	measures	, give oxygen. If breathing s	tops, give artificial respiration. Consult a doctor.
4.	Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Contac	measures now this safety data sheet. I monitor breathing. If breathing becomes difficult t		tops, give artificial respiration. Consult a doctor. ontaminated clothing and shoes and wash before reuse. Consult a doctor.
4.	Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Contac Immediately wash skin In Case of Eye Contact	measures now this safety data sheet. I monitor breathing. If breathing becomes difficult t with copious amounts of soap and water for at l	east 15 minutes. Remove c	
	Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Contac Immediately wash skin In Case of Eye Contact	measures now this safety data sheet. I monitor breathing. If breathing becomes difficult t with copious amounts of soap and water for at I	east 15 minutes. Remove c	
	Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Contact Immediately wash skin In Case of Eye Contact Flush with copious amo If Swallowed	measures now this safety data sheet. I monitor breathing. If breathing becomes difficult t with copious amounts of soap and water for at l unts of water for at least 15 minutes. Consult a c	east 15 minutes. Remove c	
I . 4.1	Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Contac Immediately wash skin In Case of Eye Contact Flush with copious amo If Swallowed Rinse mouth with water	measures now this safety data sheet. I monitor breathing. If breathing becomes difficult t with copious amounts of soap and water for at l unts of water for at least 15 minutes. Consult a c	east 15 minutes. Remove c	ontaminated clothing and shoes and wash before reuse. Consult a doctor.
4.	Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Contac Immediately wash skin In Case of Eye Contact Flush with copious amo If Swallowed Rinse mouth with water Most important symptom	measures now this safety data sheet. I monitor breathing. If breathing becomes difficult t with copious amounts of soap and water for at l unts of water for at least 15 minutes. Consult a c . Do not induce vomiting unless directed to do so	east 15 minutes. Remove c loctor.	ontaminated clothing and shoes and wash before reuse. Consult a doctor. ver give anything by mouth to an unconscious person. Consult a doctor.

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 (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.						
	Body Protection						
	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	Mar data and Balls			

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

Copyright © 2023 R&D Systems, Inc. a Bio-Techne Brand

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

End of safety data sheet

RD SYSTEMS a biotechne brand

Safety Data Sheet

	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING								
.1	Product Identifiers								
	Product Name:	Human Granzyme B Conjugate (contains P	roclin 300 Mixture)						
.2	Relevant identified us	ses of the substance or mixture and uses advise	ed against						
	Identified Uses:	For research use only.							
.3	Details of the supplie	r of the safety data sheet							
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475					
		614 McKinley Place NE	Fax:	1-612-656-4400					
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com					
			Email address:	info@bio-techne.com					
	Canada:	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:	11 (0)1235 520110					
	United Kingdom.	Abingdon Science Park	Fax:	44 (0)1235 529449 44 (0)1235 533420					
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com					
	China:	1193 Changning Road	Telephone:	86-400-821-3475					
		Unit 1901, Raffles Changning Office	Fax:	76 (021)52371001					
		Shanghai, China	Email address:	techsupport.cn@bio-techne.com					
.4	Emergency Telephon	e Number							
	Emergency Tel: For ch	emical emergency, spill, leak, fire, exposure, or ac	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								
	Bio-Techne Tel: US: 67	12-379-2956 or 800-343-7475 / Europe: +44(0)123	35-529449 / China 86-400-8	321-3475					
2.	Bio-Techne Tel: US: 6		35-529449 / China 86-400-8	321-3475					
		CATION	85-529449 / China 86-400-8	321-3475					
	HAZARDS IDENTIFIC Classification of the s	CATION							
	HAZARDS IDENTIFIC Classification of the s	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP]							
2.1	HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP]							
2. 2.1 2.2	HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] itegory 1							
2.1	HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP]							
2.1	HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] itegory 1							
2.1	HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] itegory 1							
2.1	HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word:	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 o Regulation (EC) No 1272/2008 [GHS/CLP]							
2.1	HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s):	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 o Regulation (EC) No 1272/2008 [GHS/CLP] Warning							
2.1	HAZARDS IDENTIFIC Classification of the s Classification accord Sensitization, skin - Ca Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 o Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction.							
2.1	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	CATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 D Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. unt(s):	or 29 CFR 1910.1200 [OS						
2.1	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	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 b Regulation (EC) No 1272/2008 [GHS/CLP] Warning Warning May cause an allergic skin reaction. ent(s): Avoid breathing dust/fumes/gas/mist Contaminated work clothing should	or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the	SHA] workplace.					
2.1	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	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 D Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. ent(s): Avoid breathing dust/fumes/gas/mist Contaminated work clothing should Wear protective gloves/protective clot	or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the othing/eye protection/face p	SHA] workplace.					
2.1	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	CATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 b Regulation (EC) No 1272/2008 [GHS/CLP] Warning Warning May cause an allergic skin reaction. ent(s): Avoid breathing dust/fumes/gas/mist Contaminated work clothing should	/vapors/spray. not be allowed out of the sthing/eye protection/face p ap and water.	SHA] workplace.					
2.1	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	CATION 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. May cause an allergic skin reaction.	l or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the othing/eye protection/face p ap and water. redical advice/attention.	SHA] workplace.					
2.1	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 P303+313	CATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 D Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. May cause an allergic skin reaction.	l or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the othing/eye protection/face p ap and water. redical advice/attention.	SHA] workplace.					
.1	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	CATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 D Regulation (EC) No 1272/2008 [GHS/CLP] Warning May cause an allergic skin reaction. May cause an allergic skin reaction.	l or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the othing/eye protection/face p ap and water. redical advice/attention.	SHA] workplace.					

Not applicable.

3.2

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

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.

RD SYSTEMS a biotechne brand

Safety Data Sheet

 Product Name Manufacture Manu	1.	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING						
1.2 Relevant identified uses of the substance or mixture and uses advised against 1.3 Deall of the supplier of the safety data able 2.3 Deall of the supplier of the safety data able 3.4 Deall of the supplier of the safety data able 3.5 Deall of the supplier of the safety data able 4.6 Able Systems, Inc. a Bio-Techne Brand 614 MoGiney Place NE Fac: 1-602-668-7175 5.6 Ganda: 461 North Service Rd West Telephone: 1-602-668-668-8722 6 Mill S7 Deall dates: 0.452-668-668-8722 6 Deall date Telephone: 0.452-668-668-8722 6 Mill S7 Deall dates: 0.452-668-8722 6 Deall date Telephone: 0.410735 55340 6 Abingdon, OX14 3NB Email address: info.emea 8E-00-421-3475 1 Benegrency Telephone Number Email address: telephone.com 1 Benegrency Telephone Number Email address: telephone.com 1 Benegrency Telephone Number Email address: telephone.com 2 Margada, Chrun Email address: telephone.com 2	1.1	Product Identifiers						
 Identified Use: Por research use only. Details of the supplies of the safety data sheet Congeny: ReS System, Inc. as Bio-chrine Brand 614 McKindop Pines NE Minrespoils, NN 55113, USA Canada: 451 North Senice Rd West Unit B37 Canada: 451 North Senice Rd West Unit B37 Canada: 199 Batton Lane United Kingdom: 19 Batton Lane Telephone: 100(125 520449) Abington, Steme Park Parc Biologina, VI SS13420 Changdom, OXI ANS Email address: 100(0)126 520449 Abington, Steme Park Parc Biologina, VI SS1340 Abington, Steme Park Parc Biologina, VI ANS Email address: 100(0)126 520449 Abington, Steme Park Parc Biologina, VI ANS Email address: 100(0)125 520449 Abington, Steme Park Parc Biologina, VI ANS Email address: 100(0)125 520449 Abington, Steme Park Parc Telephone: 100(0)125 520449 Bior Teleno Park Bior Tel		Product Name:	Human Granzyme B Standard (contains Pro	oclin 300 Mixture)				
 1.3 Details of the supplier of the subplier of the subplice of the su	1.2	Relevant identified us	es of the substance or mixture and uses advise	ed against				
Company: R8D Systems, Inc. a Bio-Techne Brand B1 Michinger Place NE B1 Michinger Place		Identified Uses:	For research use only.					
 	1.3	Details of the supplier	r of the safety data sheet					
Minecapolis, MN 55413, USA Internet: www.mdxystems.com Email address: indelbio-techne.com Canada: Ga Nuchi Service Rd West Telephone: 92627-462 Unit B37 Oak-lile, ON L6M 2V5 Email address: Canada. Inquiries Bibio-techne.com United Kingdom: 19 Baron Lane Telephone: 44 (01235 552449 Abingdon OX14 3NB Email address: 41 (01235 532400 China: 1133 Changning Road Telephone: 46 6400-821-3475 Unit B01, Rafties Changning Ottice Fac: 76 (021)35231001 Shanghai, China Telephone: 86-400-821-3475 Emeigency Telephone Nutter Email address: techne.com 11 Statigenci (China) Broot china) Broot china) Bio-Techne Tel: US 1012-377-3286 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 Email address: Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1918.1200 (DSHA) Jaming Sensitization, sin - Category 1 Email address: Sensitization, sin - Category 1 Sensitization, sin - Category 1 Warning Sensitization, sin - Category 1 Libeling according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1918.1200 (DSHA) Sensitization, sin - Category 1 Sensitization, sin - Category 1 Warning Sensitizat		Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475			
Canada: 461 North Service Rd West Telephone: 1.955-668-8722 Unit B37 Daville, ON L6M 2V5 Email address: Canada: 0.928-9724.402 United Kingdom: 1.9 Baron Lane Fac: 0.928-9724.402 Abingdon Science Park Fac: 0.928-9724.402 Abingdon O, X14 3NB Fac: 0.4010/1235 5294.49 Abingdon, OX14 3NB Fac: 4.4 (0)1235 5294.49 China: 1.93 Changning Road Fac: 4.4 (0)1235 5334.20 China: 1.93 Angning Road Fac: 86-00-921-475 Unit 1907, Rdiffe Changning Office Fac: 7.6 (021)52271001 Stanghal, China Fac: 7.6 (021)52271001 Bio-Techne Tot: US 102-379-2895 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 Emergency Telephone Number Email address: techsupport.on@bio-techne.com Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 23 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 Email advines size Sensitization Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Fac: Fac: Pictogram(s): Warning Warning Hazard Satement(s): Contrainated work choing should not be allowed of of the workplace. Pictog			•	Fax:	1-612-656-4400			
Canada: Als North Service Rd West Telephone: 1-955-6698-9722 Unit B37 Casc 902-827-4402 Dakollis, ON LGM 2V5 Email address: Canada: Inquiries@bio-techne.com United Kingdom: 19 Baron Lane Telephone: 44 (0)1235 52444 Abingdom Science Park Fac: 44 (0)1235 52444 Abingdom Science Park Fac: 44 (0)1235 53402 Abingdom Science Park Fac: 76 (021)95271001 Shanghai, China Telephone: 86-400-821-3475 Unit 1901, Raffes Changning Office Fac: 76 (021)95271001 Shanghai, China Email address: telephone: Bio-Techne Tot: US: 612-379-2695 or 800-343-7475 / Europe: r44(0)123-524469 / China 86-400-821-3475 - Sensitization, according to Regulation (EC) No 12722008 [GHS/CLP] or 20 CFR 1910.1200 [OSHA] - Sensitization according to Regulation (EC) No 12722008 [GHS/CLP] - - Signal Wort: Warning - Hazar Statement(s): - - - Yint 197 May cause an allergic skin reaction. - Pactogram(s): Wardia dortesting dus/fumes/gs/minit/spore/spray. - Yint 197 May cause an allergic skin reaction. - Pactogram(s): Wardia gdus/fumes/gs/minit/spore/spray. <t< th=""><th></th><th></th><th>Minneapolis, MN 55413, USA</th><th></th><th>-</th></t<>			Minneapolis, MN 55413, USA		-			
 Unit B37 Griffield CNL GM 2015 Fax Griffield CNL GM 2015 Griffield CNL GM 2015 Fax Griffield GM 2015 Fax Griffield CNL GM 2015 Fax Griffield GM 2015 Fax Gr				Email address:	info@bio-techne.com			
Odiville, ON L6M 2V5 Email address; Canada.inquiries@bio-techne.com United Kingdom: 19 Barton Lane Abingdon, OX14 3NB Telephone: 44 (0)1235 529449 Fac: 44 (0)1235 533420 Kingdom, OX14 3NB China: 1193 Changning Road Unit 1901, Rathenging Office Bio-Techne Tel: US: 012-379-2956 or 800-343-7475 / Europe: Telephone: 86-400-621-3475 Bio-Techne Tel: US: 012-379-2956 or 800-343-7475 / Europe: 1.4 Emergency Telephone Number Emergency Tele For chemical emergeners, 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: 012-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 2.4 HAZARDS IDENTFICATION Bio-Techne Tel: US: 012-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-875 2.4 HAZARDS IDENTFICATION Bio-Techne Tel: US: 012-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-875 2.4 Label IDENTFICATION Bio-Techne Tel: US: 012-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-875 2.4 Label IDENTFICATION Bio-Techne Tel: US: 012-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-875 2.4 Label IDENTFICATION Bio-Techne Tel: US: 012-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-875 2.5 Label IDENTFICATION Warning +45(0)1237-2008 (GHS/CLP) or 27 CFR 1910-1200 (OSHA) 3.6 Pictorgam(5): Ka		Canada:	461 North Service Rd West	Telephone:	1-855-668-8722			
United Kingdom: 19 Barton Lane Telephone: 41 (0)1235 529449 Abingdon, OX14 3NB Erail address: info.ennee@bio-techne.com Chine: 1193 Changning Road Fac: 41 (0)1235 529449 Unit 1901, Raffles Changning Office Fac: 41 (0)1235 529449 Stangle, China Bio-Techne Route Bio-Route Bio-Route 100 Telephone: 86-400-821-3475 Erail address: Bio-Route 110 Energency Telephone Number Energency Telephone Number Energency Telephone Number Bio-Techne Tele US: B12-379-2986 or 800-343-775 / Europe: +44(0)1235-529449 / China 86-400-821-3475 110 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 1 111 Classification of the substance or mixture Elabeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pice 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 Vacing Saming Name Pice 20 CFR 1910.1200 [OSHA] Signal Word: Warning Pice 20 Contaminated work cloning should not be allowed out of the workplace. Hazard Statement(s): Pice 20 Contaminated work cloning should not be allowed out of the workplace. Picogami(s): </th <th></th> <th></th> <th>Unit B37</th> <th>Fax:</th> <th>902-827-6402</th>			Unit B37	Fax:	902-827-6402			
Abingdon Science Park Abingdon, OX14 3NB Fac: 44 (0)1235 533420 Info.emea@bio-techne.com China: 1193 Changning Road Unit 1901, Raftes Changning Office Fac: 84-00-921-3475 Telephone: Shanghai, China Telephone: 84-00-921-3475 Telephone: Bio-techne.com 1.4 Emergency Telephone Number Email address: techsupport.cn@bio-techne.com 1.4 Emergency Telephone Number Email address: techsupport.cn@bio-techne.com 2. HAZARDS IDENTIFICATION Emergency Telephone Number Emergency Telephone Number 2. HAZARDS IDENTIFICATION Email address: Email address: 2. HAZARDS IDENTIFICATION Email address: Email address: 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 2.2 Label Elements Email address Email address Label Igenents Warning Email address Email address H317 Mar cause an allergic skin reaction. Email address proves Precautionary Statement(s): Avoid breathing dust/fumes/gas/misi/vapors/spray. P272 Contaminade dust avoid and the allergic advice/approx/spray. P273 P274 Avoid breathing dust/fumes/gas/misi/vapors/spray. P302-833 Fo NSIN: Wash with pleny of scap and wasn. P302-833 <th></th> <th></th> <th>Oakville, ON L6M 2V5</th> <th>Email address:</th> <th>Canada.inquiries@bio-techne.com</th>			Oakville, ON L6M 2V5	Email address:	Canada.inquiries@bio-techne.com			
Abingdon Science Park Abingdon, OX14 3NB Fac: 44 (0)1235 533420 Info.emea@bio-techne.com China: 1193 Changing Road Unit 1901, Raftles Changing Office Fac: 86-00-921-3475 Unit 2015 2371001 Shanghai, China Telephone: 86-00-921-3475 Unit 1901, Raftles Changing Office Fac: 76 (021)52371001 Image and the sergency Tele 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 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 Label Elements Label Ing according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s): Varing H3270 Mary cause an allergic skin reaction. Precoutionary Statement(s): P220 P221 Avoid breathing dust/Imes/gas/mist/vapors/spray. P222 P233 Yender Wind Korthing and wash it before reuse. P332+8734 Wash yender Wind Wind Yords with pleny of scoap and water. P332+8734 H317 Avoid breathing dust/Imes/gas/mist/vapors/spray. P222 Contaminated work clothing an		United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449			
China: 1133 Changning Road Unit 1901, Raffles Changning Office Shanghal, China Telephone: Fax: Email address: 76 (021)52371001 Shanghal, China Emergency Telephone Number Email address: 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 Tei: 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 of the substance or mixture Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s): Varming Hazard Statement(s): Precautionary Statement(s): P201 Avoid breathing dust/fumes/gas/mist/vapors/spray. P272 P21 Avoid breathing dust/fumes/gas/mist/vapors/spray. P272 Contaminated work dothing should not be allwed out of the workplace. P204 P204 Avoid breathing dust/fumes/gas/mist/vapors/spray. P273 Contaminated dothing and wash it before reuse. P334-3313 If Son Sitter Contaminated dothing and wash it before reuse. P332+P364 3.3 Other Hazards - None Take of contaminated dothing and wash it before reuse.		3.1		·				
Unit 1901, Raffies Changning Office Fax: 76 (021)52371001 Shanghai, China Email address: techsupport.or@bio-techne.com 1.4 Emergency Telephone Number techsupport.or@bio-techne.com Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 2. HAZARDS IDENTIFICATION 2. HAZARDS IDENTIFICATION 2.1 Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s): Warning H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dus/fumes/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P284 P302-432 IF ON SNIK! Wash with plenty of soap and wash. Ediowed function. P324-3313 If skin infinition or neacloonting ore protection. P382+47864			Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com			
Shanghai, China Email address: techsupport.on@bio-lechne.com 1.4 Emergency Telephone Number Emergency Telephone Number Emergency Telephone Number Emergency Telephone Number Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 2. HAZARDS IDENTIFICATION 2. HAZARDS IDENTIFICATION 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s): Emergency Sitement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): May cause an allergic skin reaction. P261 Avoid breathing dust/fumes/gas/mist/vapors/pray. P263 Wear protective glowseprotective clothing/eye protection. P333-313 If skin irritation or rash occurs. Get medical advice/atention. P333-413 Mergen Take of contaminated wash is before reuse. 2.3 Other Hazards - None 3. CoMPOSITION/INFORMATION IN INGREDIENTS		China:	1193 Changning Road	Telephone:	86-400-821-3475			
1.4 Emergency Telephone Number Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-5500 Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 2. HAZARDS IDENTIFICATION 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s):			Unit 1901, Raffles Changning Office	Fax:	76 (021)52371001			
Emergency Tel: For chemical emergency. spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-5500 Bio-Techna Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 HAZARDS IDENTIFICATION Classification of the substance or mixture Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s): Warning Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dust/fumes/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/sportsepray. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P3622+P364 Take off contaminated clothing and wash it before reuse. 2.3 Other Hazards - None 3. COMPOSITION/INFORMATION ON INGREDIENTS			Shanghai, China	Email address:	techsupport.cn@bio-techne.com			
Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475 AZARDS IDENTIFICATION 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 Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s): Signal Word: Warning Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Contaminated work clothing should not be allowed out of the workplace. P280 War protective gloves/protective clothing/eye protection. P302+352 H of None COMPOSITIONINFORMATION INGREDIENTS COMPOSITIONINFORMATION INGREDIENTS	1.4	Emergency Telephone	e Number					
 AZARDS IDENTIFICATION 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 Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s): Signal Word: Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dust/turnes/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P302+352 I F ON SKIN: Wash with plenty of soap and water. P302+352 P333+313 If skin irritation or rash occurs: Get medical advice/attention. P302+954 T Akone COMPOSITION/INFORMATION INGREDIENTS 		Emergency Tel: For che	emical emergency, spill, leak, fire, exposure, or ac	cident call CHEMTREC day	or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-5500			
2.1 Classification of the substance v mixture Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s):		Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475						
Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s):		Bio-Techne Tel: US: 61	2-379-2956 or 800-343-7475 / Europe: +44(0)123	85-529449 / China 86-400-8	321-3475			
Sensitization, skin - Category 1 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s): Quantity of the sense of the sens	2.			35-529449 / China 86-400-8	321-3475			
 2.2 Label Elements Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s): Signal Word: Warning Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dust/fumes/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of scap and water. P333+313 If skin irritation or rash occurs: Gott medical advice/altention. P362+P364 Take off contaminated clothing and wash it before reuse. COMPOSITION/INFORMATION INGREDIENTS 		HAZARDS IDENTIFIC	ATION	85-529449 / China 86-400-8	321-3475			
Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s):		HAZARDS IDENTIFIC Classification of the s	CATION substance or mixture					
Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] Pictogram(s):		HAZARDS IDENTIFIC Classification of the s Classification accordi	ATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP]					
Pictogram(s):	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Ca	ATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP]					
Signal Word: Warning Hazard Statement(s): Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): Precautionary Statement(s): P261 Avoid breathing dust/fumes/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. 2.3 COMPOSITION/INFORMATION INGREDIENTS	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Car Label Elements	EATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1					
Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dust/fumes/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. 2.3 Other Hazards - None	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Cat Label Elements Labeling according to	EATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1					
H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 P261 Avoid breathing dust/fumes/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. 2.3 Other Hazards - None	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Cat Label Elements Labeling according to	EATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1					
Precautionary Statement(s): P261 Avoid breathing dust/fumes/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. 2.3 Other Hazards - None 3. COMPOSITION/INFORMATION ON INGREDIENTS	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Car Label Elements Labeling according to Pictogram(s):	EATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 o Regulation (EC) No 1272/2008 [GHS/CLP]					
P261 Avoid breathing dust/fumes/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. 2.3 Other Hazards - None COMPOSITION/INFORMATION ON INGREDIENTS	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Car Label Elements Labeling according to Pictogram(s): Signal Word:	EATION Substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 o Regulation (EC) No 1272/2008 [GHS/CLP]					
P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. 2.3 Other Hazards - None 3. COMPOSITION/INFORMATION ON INGREDIENTS	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Cat Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s):	EATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 P Regulation (EC) No 1272/2008 [GHS/CLP] Warning					
P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. 2.3 Other Hazards - None SCOMPOSITION/INFORMATION ON INGREDIENTS	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Car Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317	ATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 • Regulation (EC) No 1272/2008 [GHS/CLP] • Warning May cause an allergic skin reaction.					
P302+352 IF ON SKIN: Wash with plenty of soap and water. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. 2.3 Other Hazards - None 3. COMPOSITION/INFORMATION ON INGREDIENTS	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Car Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Statement P261	ATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1 • Regulation (EC) No 1272/2008 [GHS/CLP] • Warning May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/mist	or 29 CFR 1910.1200 [OS	SHA]			
P362+P364 Take off contaminated clothing and wash it before reuse. 2.3 Other Hazards - None 3. COMPOSITION/INFORMATION ON INGREDIENTS	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Car Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Statement P261 P272	ATION 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	or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the v	SHA] workplace.			
2.3 Other Hazards - None	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Car Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Statement P261 P272 P280	ATION 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	or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the v	SHA] workplace.			
	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Cat Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Statement P261 P272 P280 P302+352 P303+313	ATION substance or mixture ing to Regulation (EC) No 1272/2008 [GHS/CLP] tegory 1	l or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the v othing/eye protection/face p ap and water. redical advice/attention.	SHA] workplace.			
	2.1	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Car Label Elements Labeling according to Pictogram(s): Signal Word: Hazard Statement(s): H317 Precautionary Statement P261 P272 P280 P302+352 P333+313 P362+P364	ATION 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. 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	l or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the v othing/eye protection/face p ap and water. redical advice/attention.	SHA] workplace.			
	2.1 2.2 2.3	HAZARDS IDENTIFIC Classification of the s Classification accordi Sensitization, skin - Car 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	ATION 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. May cause an allergic skin reaction. nt(s): Avoid breathing dust/fumes/gas/misis 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	l or 29 CFR 1910.1200 [OS //vapors/spray. not be allowed out of the v othing/eye protection/face p ap and water. redical advice/attention.	SHA] workplace.			

Not applicable.

3.2

Mixtures					
Component	CAS No.	EC No.	Index No.	Classification	Conc.
Proclin 300 Mixture <0.1	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	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.

RD SYSTEMS a biotechne brand

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 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	362+P364 Take off contaminated clothing and wash it before reuse. 321 Specific treatment (see section 4 on this SDS).						
	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.
	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.

RD SYSTEMS a biotechne brand

Safety Data Sheet

Version 1.0 SDS Revision Date 11/14/2023 www.rndsystems.com

1.	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE C	OMPANY/UNDERTAKIN	IG		
.1	Product Identifiers					
	Product Name:	Calibrator Diluent RD5P (contains Proclin	300 Mixture)			
.2	Relevant identified us	es of the substance or mixture and uses advi	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	e Number				
	Emergency Tel: For che	emical emergency, spill, leak, fire, exposure, or a	ccident call CHEMTREC da	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)12	235-529449 / China 86-400-	821-3475		
.1	HAZARDS IDENTIFIC					
	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		P] of 29 CFR 1910.1200 [O	SRAJ		
2.2	Label Elements					
	Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]					
	Pictogram(s):	\wedge				
	0 ()					
	Signal Word:	Warning				
	Hazard Statement(s):					
	H317	May cause an allergic skin reaction	1.			
	Precautionary Statement(s):					
	P261	Avoid breathing dust/fumes/gas/mi				
	P272 P280	Contaminated work clothing should Wear protective gloves/protective of				
	P302+352	IF ON SKIN: Wash with plenty of so				
	P333+313	If skin irritation or rash occurs: Get				
	P362+P364 Other Hazards - None	Take off contaminated clothing and	i wash it before reuse.			
.3						
•	COMPOSITION/INFO	RMATION ON INGREDIENTS				
•	COMPOSITION/INFO Substances	RMATION ON INGREDIENTS				
2.3 5. 3.1 3.2	COMPOSITION/INFO	RMATION ON INGREDIENTS				

3.2 Mixtures

	mixta 60					
	Component	CAS No.	EC No.	Index No.	Classification	Conc.
	Proclin 300 Mixture <0.1% (active	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.

RD SYSTEMS a biotechne brand

Safety Data Sheet

1.	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE CO	MPANY/UNDERTAKIN	G		
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		
		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 Teleph	none Number				
	Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night:					
	US: 612-379-2956 or 8	300-343-7475 / Europe: +44(0)1235-529449 / Chin	a 86-400-821-3475			
2.	HAZARDS IDENTIFIC	CATION				
2.4	Classification of the	whotenes as mixture				
2.1	Classification of the s	substance of mixture				

Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1

2.2 Label Elements

Labeling according to	o Regulation (EC) No 1272/2008 [GHS/CLP]	
Pictogram(s):	(1)	

Signal Word:	Warning
Hazard Statement(s):	
H317	May cause an allergic skin reaction.
Precautionary Statement	i(s):
P261	Avoid breathing dust/fumes/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

2.3 Other Hazards - None

COMPOSITION/INFORMATION ON INGREDIENTS 3.

3.1

Substances Not applicable.

Mixtures 3.2

Component	CAS No.	EC No.	Index No.	Classification	Conc.
Proclin 300 Mixture <0	1% (active 96118-96-6				

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

H317

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
	Annuanista Engineering Controlo
	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

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

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

End of safety data sheet



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

1.1 Product Identifiers Product Name: Color Reagent A 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified Uses: For research use only. Details of the supplier of the safety data sheet 1.3 1-800-343-7475 Company: R&D Systems, Inc. a Bio-Techne Brand Telephone: 614 McKinley Place NE 1-612-656-4400 Fax: Minneapolis, MN 55413, USA Internet: www.rndsvstems.com Email address: info@bio-techne.com 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 availa					
	Skin Corrosion / Irritation					
	Classified based on availa					
	Serious Eye Damage / Irr					
	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 available data.					
	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 availa					
	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

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

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

End of safety data sheet



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

1.1 Product Identifiers

Product Name: Color Reagent 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 threshold 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	REACH (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

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

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

End of safety data sheet



1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING Product Identifiers 1.1 Product Name: Stop Solution 2N Sulfuric Acid (contains Sulfuric Acid) Relevant identified uses of the substance or mixture and uses advised against 1.2 Identified Uses: For Research Use Only 1.3 Details of the supplier of the safety data sheet R&D Systems, Inc. a Bio-Techne Brand 1-800-343-7475 Company: Telephone: 614 McKinley Place NE 1-612-656-4400 Fax: Minneapolis, MN 55413, USA Internet: www.rndsystems.com Email address: info@bio-techne.com 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]

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]

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

2.3 Other Hazards - None

3.

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				
	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
--------------------	----------

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

Ш

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

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.