

Safety Data Sheet

1.	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING		
1.1	Product Identifiers		
	Product Name:	Human PDGF-BB Quantikine ELISA Kit	
	Catalog Number:	DBB00	
	Components:	Assay Diluent (contains Proclin 300 Mixture = .005%)	
		Calibrator Diluent (contains Proclin 300 Mixture = .005%)	
		Color Reagent A	
		Color Reagent B	
		Conjugate (contains Proclin 300 Mixture = .005%)	

Stop Solution (contains Sulfuric Acid <10%) Wash Buffer Concentrate (contains Proclin 300 Mixture = .025%)

Standard (contains Proclin 300 Mixture = .005%)

1.2 Relevant identified uses of the substance or mixture and uses advised 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:	461 North Service Rd West	Telephone:	1-855-668-8722				
		Unit B37	Fax:	902-827-6402				
		Oakville, ON L6M 2V5	Email address:	Canada.inquiries@bio-techne.com				
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449				
		Abingdon Science Park	Fax:	44 (0)1235 533420				
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com				
	China:	1193 Changning Road	Telephone:	86-400-821-3475				
		Unit 1901, Raffles Changning Office	Fax:	76 (021)52371001				
		Shanghai, China	Email address:	techsupport.cn@bio-techne.com				

1.4 Emergency Telephone Number

Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: 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.	IDENTIFICATION OF THE	SUBSTANCE/MIXTURE AND OF THE COM	PANY/UNDERTAKING	
1.1	Product Identifiers			
	Product Name:	Assay Diluent (contains Proclin 300 Mixture =	0.005%)	
1.2	Relevant identified uses of	of the substance or mixture and uses advised	against	
	Identified Uses:	For Research Use Only		
1.3	Details of the supplier of the	ne 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.mdsystems.com
			Email address:	info@bio-techne.com
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722
		Toronto, ON	Fax:	902-827-6402
		M8Z 4E6 Canada	Email address:	Canada.inquiries@bio-techne.com
	United Kingdom:	19 Barton Lane Abingdon	Telephone:	44 (0)1235 529449
		Science Park Abingdon,	Fax:	44 (0)1235 533420
		OX14 3NB	Email address:	info.emea@bio-techne.com
	China:	1193 Changning Road	Telephone:	86-400-821-3475
		Unit 1901, Raffles Changning Office Shanghai , China	Fax: Email address:	76 (021)52371001 techsupport.cn@bio-techne.com

1.4 Emergency Telephone Number

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

HAZARDS IDENTIFICATION 2. Classification of the substance or mixture 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] Pictogram(s): Signal Word: Warning Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dust/fume/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+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P317 If skin irritation or rash occurs: Get medical help. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/container to an approved waste disposal plant. 23 Other Hazards - None

		ON INGREDIENTS							
.1	Substances								
2	Not applicable. Mixtures								
2	Component	CAS No.	ECNo.	Index No.	Classification	Conc.			
		CASINO.	LONO.	INGER NO.	Classification	conc.			
	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2-Methyl- 2H-Isothiazolin-3-one(3:1)	5965-84-9	9114-418-6	613-167-00-5	H317	=0.005%			
	FIRST AID MEASURES								
1	Description of first aid measures								
	General Advice Consult a doctor and show this safe	ety data sheet.							
	If Inhaled Remove to fresh air and monitor bre	athing. If breathing be	comes difficult, give oxyger	n. If breathing stops, give artifi	cial respiration. Consult a doctor.				
	In Case of Skin Contact Immediately wash skin with copious	s amounts of soap and	d water for at least 15 minu	tes. Remove contaminated c	lothing and shoes and wash before re	euse. Consult a doctor.			
	In Case of Eye Contact Flush with copious amounts of water for at least 15 minutes. Consult a doctor.								
_		Ū.	-	personnel. Never give anythir	ng by mouth to an unconscious person	. Consult a doctor.			
2	Most important symptoms and eff		-	not been the second by the second	unter d				
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								
3	Show this safety data sheet to the d	-		is required					
	FIRE-FIGHTING MEASURES								
1	Extinguishing Media								
	Suitable extinguishing media								
	Use water spray, alcohol-resistant for	-	arbon dioxide.						
2	Special hazards arising from the s								
	In combustion, may emit toxic fumes.								
3	Precautions for fire-fighters								
	Wear suitable protective clothing to	prevent contact with sl	kin and eyes and self-conta	ined breathing apparatus.					
	ACCIDENTIAL RELEASE MEASU	JRES							
.1	Personal precautions, protective e	quipment and emerge	ency procedures						
	Do not take action without suitable or gas.	protective clothing - s	see section 8 of SDS. Eva	cuate personnel to safe area	s. Ensure adequate ventilation. Avoid	d breathing vapors, mist, dust			
2	Environmental precautions								
	Do not let product enter drains.								
3	Methods and materials for contain	ment and cleaning up)						
	Cover spillage with suitable absorb	ent material. Hold all n	naterial for appropriate dis	posal as described under sec	tion 13 of SDS.				
4	Reference to other sections								
	For required PPE see section 8. Fo	r disposal see section	13.						
	HANDLING AND STORAGE								
1	Precautions for safe handling	alda and district to the				and a final firm that and the state			
_	or repeated exposure.			and aerosols. Use in a well-v	/entilated area. Keep away from sour	ces of ignition. Avoid prolonge			
2	Conditions for safe storage, includ								
	Store in cool, well-ventilated area. K	eep away from direct	sunlight. Neep container tig	nuy sealed until ready for use	l.				
3	Specific end uses Not applicable.								
	EXPOSURE CONTROLS/PERSO								
1	Control parameters								
	Components with workplace cont	rol parameters				3 of 41			
	Contains no substances with occur								

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(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.
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

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	UNNumber
	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 and 29 CFR 1910.1200 [OSHA]
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. 5 of 41

California Proposition 65 : Proclin 300 Mixture

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

End of safety data sheet

RD SYSTEMS a biotechne brand

1.	IDENTIFICATION OF THE	SUBSTANCE/MIXTURE AND OF THE COM	PANY/UNDERTAKING	
1.1	Product Identifiers			
	Product Name:	Calibrator Diluent (contains Proclin 300 Mixtur	e = .005%)	
1.2	Relevant identified uses of	f the substance or mixture and uses advised	against	
	Identified Uses:	For Research Use Only		
1.3	Details of the supplier of the	ne 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.mdsystems.com
			Email address:	info@bio-techne.com
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722
		Toronto, ON	Fax:	902-827-6402
		M8Z 4E6 Canada	Email address:	Canada.inquiries@bio-techne.com
	United Kingdom:	19 Barton Lane Abingdon	Telephone:	44 (0)1235 529449
		Science Park Abingdon,	Fax:	44 (0)1235 533420
		OX14 3NB	Email address:	info.emea@bio-techne.com
			Talashara	00,400,004,0475
	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 Number

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

HAZARDS IDENTIFICATION 2. Classification of the substance or mixture 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] Pictogram(s): Signal Word: Warning Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dust/fume/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+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P317 If skin irritation or rash occurs: Get medical help. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/container to an approved waste disposal plant. 23 Other Hazards - None

3.	COMPOSITION/INFORMATION	ON INGREDIENTS							
1	Substances								
	Not applicable.								
.2	Mixtures								
	Component	CAS No.	EC No.	Index No.	Classification	Conc.			
	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2-Methyl- 2H-Isothiazolin-3-one(3:1)	5965-84-9	9114-418-6	613-167-00-5	H317	=.005%			
	FIRST AID MEASURES								
1	Description of first aid measures								
	General Advice Consult a doctor and show this safe	etv data sheet							
	If Inhaled								
	Remove to fresh air and monitor bre	eathing. If breathing bec	comes difficult, give oxygen	. If breathing stops, give artifi	icial respiration. Consult a doctor.				
	In Case of Skin Contact Immediately wash skin with copiou	is amounts of soap and	water for at least 15 minut	es. Remove contaminated c	clothing and shoes and wash before reu	se. Consult a doctor.			
	In Case of Eye Contact	·			5				
	Flush with copious amounts of wate	er for at least 15 minute	s. Consult a doctor.						
	If Swallowed		and an also so that the first	and the second second					
•		-		ersonnel. Never give anythir	ng by mouth to an unconscious person.	Consult a doctor.			
2	Most important symptoms and eff		-	not been there will be a star	rotod				
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								
3	Show this safety data sheet to the	-		is required					
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	FIRE-FIGHTING MEASURES								
1	Extinguishing Media								
	Suitable extinguishing media								
	Use water spray, alcohol-resistant f	-	arbon dioxide.						
2	Special hazards arising from the s								
	In combustion, may emit toxic fumes.								
.3	Precautions for fire-fighters								
	Wear suitable protective clothing to	prevent contact with sk	in and eyes and self-contain	ned breathing apparatus.					
	ACCIDENTIAL RELEASE MEAS	URES							
.1	Personal precautions, protective e	equipment and emerge	ency procedures						
		e protective clothing - se	ee section 8 of SDS. Evac	uate personnel to safe area	as. Ensure adequate ventilation. Avoid	breathing vapors, mist, dust			
2	or gas. Environmental precautions								
-	Do not let product enter drains.								
3	Methods and materials for contain	ment and cleaning up							
	Cover spillage with suitable absorb			osal as described under sec	ction 13 of SDS.				
4	Reference to other sections								
	For required PPE see section 8. For	or disposal see section 1	13.						
	HANDLING AND STORAGE								
.1	Precautions for safe handling								
	Avoid inhalation, contact with eyes or repeated exposure.	s, skin and clothing. Av	roid the formation of dust a	and aerosols. Use in a well-w	ventilated area. Keep away from sourc	es of ignition. Avoid prolonge			
2	Conditions for safe storage, includ	ding any incompatibilitie	es						
	Store in cool, well-ventilated area.	Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.							
	Specific end uses								
.3	Specific end uses								
.3	Specific end uses Not applicable.								
		DNAL PROTECTION							
.1	Not applicable.	DNAL PROTECTION							

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(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.
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

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	UNNumber
	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 and 29 CFR 1910.1200 [OSHA]
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. 10 of 41

California Proposition 65 : Proclin 300 Mixture

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

End of safety data sheet



IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING 1. 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. 1.3 Details of the supplier of the safety data sheet Company: R&D Systems, Inc. a Bio-Techne Brand Telephone: 1-800-343-7475 614 McKinley Place NE Fax. 1-612-656-4400 Minneapolis, MN 55413, USA Internet: www.rndsystems.com Email address: info@bio-techne.com Canada: 21 Canmotor Avenue 1-855-668-8722 Telephone: Toronto, Ontario M8Z4E6 902-827-6402 Fax: Canada 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 86-400-821-3475 Telephone: Unit 1901, Raffles City Changning Office Fax: 76 (021) 52371001 techsupport.cn@bio-techne.com Shanghai Email address 1.4 **Emergency Telephone Number** 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 HAZARDS IDENTIFICATION 2 Classification of the substance or mixture 2.1 This substance does not meet the classification criteria according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]. 2.2 Label Elements The product does not need to be labelled in accordance with Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]. 2.3 Other Hazards - None 3. COMPOSITION/INFORMATION ON INGREDIENTS Substances 3.1 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. FIRST AID MEASURES 4. 4.1 Description of first aid measures **General Advice** Consult a doctor and show this safety data sheet. If Inhaled Remove to fresh air and monitor breathing. In Case of Skin Contact Wash skin with soap and water. If irritation occurs, consult a doctor. In Case of Eye Contact Flush with water for at least 15 minutes. If irritation occurs, consult a doctor. If Swallowed Rinse mouth with water. Consult a doctor if you feel unwell. 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. 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.

5.1 Extinguishing Media

5.2

Suitable extinguishing media

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

Special hazards arising from the substance or mixture

In combustion, may emit toxic fumes.

5.3 Precautions for fire-fighters

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

6. ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

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

6.4 Reference to other sections

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

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

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

7.2 Conditions for safe storage, including any incompatibilities

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 Flammability (Solid, Gas)	No data available. No data available.	Viscosity Explosive Properties	No data available. No data available.

Other safety information 9.2

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.

No data available.

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.

TOXICOLOGICAL INFORMATION 11.

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:	No known symptoms.
Ingestion:	No known symptoms.
Skin:	No known symptoms.
Eyes:	No known symptoms.

Delayed/Immediate Effects: No known symptoms.

Additional Information

Classified based on available data.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

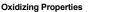
No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.



No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available

Other adverse effects 12.6

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 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 and 29 CFR 1910.1200 [OSHA]

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.

15.1 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

Copyright © 2024 R&D Systems, Inc. a Bio-Techne Brand

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

End of safety data sheet

RD SYSTEMS a biotechne brand

Version 3.0 SDS Revision Date 2/9/2024 www.rndsystems.com

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:

1.3 Details of the supplier of the safety data sheet

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

2.3

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

Pictogram(s):



Danger

Signal Word:	
Hazard Statement(s):	

H312 H315	Harmful in contact with skin. Causes skin irritation.
H319 H332	Causes serious eye irritation. Harmful if inhaled.
H360	May damage fertility or the unborn child
Precautionary Statement(s):	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only in well-ventilated areas.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P312	Call poison center/doctor if you feel unwell.
P321	Specific treatment (see Section 4).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
Other Hazards - None	

COMPOSITION/INFORMATION ON INGREDIENTS 3.

3.1 Substances

Not applicable.

3.2 Mixtures

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 %

FIRST AID MEASURES 4.

4.1 Description of first aid measures

General Advice

Consult a doctor and show this safety data sheet.

If Inhaled

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

In Case of Skin Contact

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

In Case of Eye Contact

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

If Swallowed

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

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of immediate medical attention and special treatment needed

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

FIRE-FIGHTING MEASURES 5.

5.1 Extinguishing Media

5.2

Suitable extinguishing media

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

Special hazards arising from the substance or mixture

In combustion, may emit toxic fumes.

5.3 Precautions for fire-fighters

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

ACCIDENTIAL RELEASE MEASURES 6.

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 das.

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.

HANDLING AND STORAGE 7

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	20 ppm 61 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

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)

Tetramethylbenzidine

8.2

9

54827-17-7

Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate Engineering Controls

Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure the facility is equipped with a safety shower and eye wash stations near point of use.

Personal Protective Equipment

Eye / Face Protection

Use safety goggles with side protection and face shield

Skin Protection

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

Body Protection

Wear appropriate protective clothing.

Respiratory Protection

Use appropriate respiratory protection if adequate exhaust ventilation is absent.

Environmental exposure controls

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

PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid	Vapor Pressure	No data available.
Odor	No data available.	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
рН	No data available.	Solubility(ies)	No data available.
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Autoignition Temperature	No data available.

No data available. No data available. No data available. Decomposition Temperature Viscosity Explosive Properties

Oxidizing Properties

No data available. No data available. No data available.

No data available.

Upper / Lower Flammability or Explosive No data available.

9.2 Other safety information

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

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

10.5 Incompatible materials

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

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

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

Skin Corrosion / Irritation

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

Serious Eye Damage / Irritation

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

Respiratory or Skin Sensitization

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

Germ Cell Mutagenicity

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

Carcinogenicity

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

Reproductive Toxicity

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

Specific Target Organ Toxicity - Single Exposure

Classified based on available data

Specific Target Organ Toxicity - Repeated Exposure

N,N-Dimethylformamide - Classified based on available data

Tetramethylbenzidine - No data available.

Aspiration Hazard

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

Symptoms / Routes of Exposure

Inhalation:	N,N-Dimethylformamide - Toxic if inhaled. May cause respiratory tract irritation.
	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.

Eyes:

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

	,	,
Delayed / Immediate Effects:	N,N-Dimethylformamide Tetramethylbenzidine - I	

Additional Information

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

12.	ECOLOGICAL INFORMATION
12.1	Toxicity
	No data available.
12.2	Persistence and degradability
	No data available.
12.3	Bioaccumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	Dispose of contents/container in accordance with local/regional/national/international regulations.
	Contaminated Packaging
	Dispose of contents/container in accordance with local/regional/national/international regulations.
14.	TRANSPORT INFORMATION
	Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.
14.1	UN-Number
	Does not meet the criteria for classification as hazardous for transport.
14.2	UN proper shipping name
	Does not meet the criteria for classification as hazardous for transport.
14.3	Transport hazard class(es)
	Does not meet the criteria for classification as hazardous for transport.
14.4	Packaging group
	Does not meet the criteria for classification as hazardous for transport.
14.5	Environmental hazards
	Does not meet the criteria for classification as hazardous for transport.
14.6	Special precautions for users
	Does not meet the criteria for classification as hazardous for transport

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.

National Inventories

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	x	Х	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

Authorization / Restriction according to EU REACH

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

National Regulations

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

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

End of safety data sheet

RD SYSTEMS a biotechne brand

1.	IDENTIFICATION OF THE	E SUBSTANCE/MIXTURE AND OF THE COM	PANY/UNDERTAKING	
1.1	Product Identifiers			
	Product Name:	Conjugate (contains Proclin 300 Mixture = 0.00	5%)	
1.2	Relevant identified uses of	of the substance or mixture and uses advised	against	
	Identified Uses:	For Research Use Only		
1.3	Details of the supplier of the	he 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.mdsystems.com
			Email address:	info@bio-techne.com
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722
		Toronto, ON	Fax:	902-827-6402
		M8Z 4E6 Canada	Email address:	Canada.inquiries@bio-techne.com
	United Kingdom:	19 Barton Lane Abingdon	Telephone:	44 (0)1235 529449
		Science Park Abingdon,	Fax:	44 (0)1235 533420
		OX14 3NB	Email address:	info.emea@bio-techne.com
	China:	1193 Changning Road	Telephone:	86-400-821-3475
		Unit 1901, Raffles Changning Office Shanghai , China	Fax: Email address:	76 (021)52371001 techsupport.cn@bio-techne.com

1.4 Emergency Telephone Number

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

HAZARDS IDENTIFICATION 2. Classification of the substance or mixture 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] Pictogram(s): Signal Word: Warning Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dust/fume/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+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P317 If skin irritation or rash occurs: Get medical help. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/container to an approved waste disposal plant. 23 Other Hazards - None

		ON INGREDIENTS							
.1	Substances								
2	Not applicable.								
2	Mixtures	CAS No.	ECNo.	Index No.	Classification	Conc.			
	Component	CAS NO.	EC NO.	index no.	Classification	Conc.			
	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2-Methyl- 2H-Isothiazolin-3-one(3:1)	5965-84-9	9114-418-6	613-167-00-5	H317	=0.005%			
	FIRST AID MEASURES								
1	Description of first aid measures								
	General Advice Consult a doctor and show this safe	ety data sheet.							
	If Inhaled Remove to fresh air and monitor bre	athing. If breathing be	comes difficult, give oxyger	n. If breathing stops, give artifi	cial respiration. Consult a doctor.				
	In Case of Skin Contact Immediately wash skin with copious	s amounts of soap and	d water for at least 15 minu	tes. Remove contaminated c	lothing and shoes and wash before re	euse. Consult a doctor.			
		In Case of Eye Contact Flush with copious amounts of water for at least 15 minutes. Consult a doctor.							
_		Ū.		personnel. Never give anythir	ng by mouth to an unconscious persor	. Consult a doctor.			
2	Most important symptoms and eff		-	not been the second by the second	unter d				
2	To the best of our knowledge, the ch			e not been inoroughly investig	aleu.				
3	Indication of immediate medical at Show this safety data sheet to the d	-		is required					
	FIRE-FIGHTING MEASURES								
1	Extinguishing Media								
	Suitable extinguishing media								
	Use water spray, alcohol-resistant for	-	arbon dioxide.						
2	Special hazards arising from the s								
	In combustion, may emit toxic fume	S.							
3	Precautions for fire-fighters								
	Wear suitable protective clothing to	prevent contact with sl	kin and eyes and self-conta	ined breathing apparatus.					
	ACCIDENTIAL RELEASE MEASU	JRES							
1	Personal precautions, protective e	quipment and emerge	ency procedures						
	Do not take action without suitable or gas.	protective clothing - s	see section 8 of SDS. Eva	cuate personnel to safe area	s. Ensure adequate ventilation. Avoid	d breathing vapors, mist, dust			
2	Environmental precautions								
	Do not let product enter drains.								
3	Methods and materials for contain	ment and cleaning up)						
	Cover spillage with suitable absorb	ent material. Hold all n	naterial for appropriate disp	posal as described under sec	tion 13 of SDS.				
4	Reference to other sections								
	For required PPE see section 8. Fo	r disposal see section	13.						
	HANDLING AND STORAGE								
1	Precautions for safe handling					.			
•	or repeated exposure.			and aerosols. Use in a well-v	ventilated area. Keep away from sour	ces of ignition. Avoid prolonge			
2	Conditions for safe storage, includ			htly sealed until roady for					
2	Store in cool, well-ventilated area. K	eep away nom direct s	sunnynt. Neep container tig	nay sealed until ready for USE	i.				
3	Specific end uses Not applicable.								
	EXPOSURE CONTROLS/PERSO								
1	Control parameters	THE TROTECTION							
	Components with workplace cont	rol parameters				23 of 41			
	Contains no substances with occur					20 0. 11			

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(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.
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

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	UNNumber
	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 and 29 CFR 1910.1200 [OSHA]
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. 25 of 41

California Proposition 65 : Proclin 300 Mixture

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

End of safety data sheet

RD SYSTEMS a biotechne brand

1.	IDENTIFICATION OF THE	E SUBSTANCE/MIXTURE AND OF THE COM	PANY/UNDERTAKING	
1.1	Product Identifiers			
	Product Name:	Standard (contains Proclin 300 Mixture = 0.005	5%)	
1.2	Relevant identified uses of	of the substance or mixture and uses advised	against	
	Identified Uses:	For Research Use Only		
1.3	Details of the supplier of the	he 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.mdsystems.com
			Email address:	info@bio-techne.com
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722
		Toronto, ON	Fax:	902-827-6402
		M8Z 4E6 Canada	Email address:	Canada.inquiries@bio-techne.com
	United Kingdom:	19 Barton Lane Abingdon	Telephone:	44 (0)1235 529449
		Science Park Abingdon,	Fax:	44 (0)1235 533420
		OX14 3NB	Email address:	info.emea@bio-techne.com
	China:	1193 Changning Road	Telephone:	86-400-821-3475
		Unit 1901, Raffles Changning Office Shanghai , China	Fax: Email address:	76 (021)52371001 techsupport.cn@bio-techne.com
		Shanghai , Ghina	Email address.	

1.4 Emergency Telephone Number

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

HAZARDS IDENTIFICATION 2. Classification of the substance or mixture 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] Pictogram(s): Signal Word: Warning Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dust/fume/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+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P317 If skin irritation or rash occurs: Get medical help. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/container to an approved waste disposal plant. 23 Other Hazards - None

.1	COMPOSITION/INFORMATION	ON INGREDIENTS					
	Not applicable.						
2	Mixtures						
_	Component	CAS No.	EC No.	Index No.	Classification	Conc.	
	· · ·						
	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2-Methyl- 2H-Isothiazolin-3-one(3:1)	5965-84-9	9114-418-6	613-167-00-5	H317	=0.005%	
	FIRST AID MEASURES						
1	Description of first aid measures						
	General Advice Consult a doctor and show this safe	ety data sheet.					
	If Inhaled Remove to fresh air and monitor bre	athing. If breathing be	comes difficult, give oxyger	. If breathing stops, give artifi	cial respiration. Consult a doctor.		
	In Case of Skin Contact Immediately wash skin with copious	s amounts of soap and	l water for at least 15 minu	tes. Remove contaminated c	lothing and shoes and wash before re	euse. Consult a doctor.	
	In Case of Eye Contact Flush with copious amounts of wate	r for at least 15 minute	es. Consult a doctor.				
	If Swallowed			personnel. Never give anythin	ng by mouth to an unconscious persor	n. Consult a doctor.	
2	Most important symptoms and eff	ects, both acute and	delayed				
	To the best of our knowledge, the ch	nemical, physical and to	oxicological properties have	e not been thoroughly investig	ated.		
3	Indication of immediate medical at	tention and special tr	eatment needed				
	Show this safety data sheet to the d	loctor in attendance. In	nmediate medical attention	is required.			
	FIRE-FIGHTING MEASURES						
1	Extinguishing Media						
	Suitable extinguishing media						
	Use water spray, alcohol-resistant fo	oam, dry chemical or c	arbon dioxide.				
2	Special hazards arising from the s	ubstance or mixture					
	In combustion, may emit toxic fume	s.					
3	Precautions for fire-fighters						
	Wear suitable protective clothing to	prevent contact with sl	kin and eyes and self-conta	ined breathing apparatus.			
	ACCIDENTIAL RELEASE MEASU	JRES					
.1	Personal precautions, protective e	quipment and emerge	ency procedures				
	Do not take action without suitable or gas.	protective clothing - s	ee section 8 of SDS. Eva	cuate personnel to safe area	s. Ensure adequate ventilation. Avoi	d breathing vapors, mist, dust	
2	Environmental precautions						
	Do not let product enter drains.						
3	Methods and materials for contain	ment and cleaning up	•				
	Cover spillage with suitable absorb	ent material. Hold all n	naterial for appropriate disp	oosal as described under sec	tion 13 of SDS.		
4	Reference to other sections						
	For required PPE see section 8. For	r disposal see section	13.				
	HANDLING AND STORAGE						
1	Precautions for safe handling						
	or repeated exposure.			and aerosols. Use in a well-v	rentilated area. Keep away from sour	rces of ignition. Avoid prolonge	
2	Conditions for safe storage, includ						
	Store in cool, well-ventilated area. K	eep away from direct s	sunlight. Keep container tig	nuy sealed until ready for use			
3	Specific end uses Not applicable.						
_	EXPOSURE CONTROLS/PERSO	NAL PROTECTION					
	Control parameters					<u> </u>	
	Components with workplace control	rol parameters				28 of 41	

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(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.
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

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	UNNumber
	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 and 29 CFR 1910.1200 [OSHA]
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. 30 of 41

California Proposition 65 : Proclin 300 Mixture

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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

End of safety data sheet

RD SYSTEMS a biotechne brand

Version 4.0 SDS Revision Date 4/9/2024 www.rndsystems.com

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

1.1 Product Identifiers

```
Product Name: Stop Solution
```

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 Abingdon	Telephone:	44 (0)1235 529449				
	Science Park Abingdon,	Fax:	44 (0)1235 533420				
	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 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]

Skin Corrosion/Irritation - Category 1A Serious eye damage/eye irritation - Category 1

2.2 Label Elements

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



Pictogram(s): GHS05

Statement(s):	
0.0.0	
H314 H318	Causes severe skin burns and eye damage irritation. Causes serious eye damage.
Precautionary Statement(s):	
P260 P272 P264+P265 P280 P302+P352 P305+P354+P338 P317 P321 P362+P364	Do not breathe dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wash skin thoroughly after handling. Do not touch eyes. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get emergency medical help. Specific treatment (see on this label). Take off contaminated clothing. And wash it before reuse.

2.3 Other Hazards - None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

Component	CAS No.	EC No.	Index No.	Classification	Conc.
Sulfuric Acid	7664-93-9	231-639-5	016-020-00-8	H314, H318	= 9.8 %
Water	7732-18-5	231-791-2			32 of 4 † 90.2 %

4 FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

Consult a doctor and show this safety data sheet.

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

5.2 Extinguishing Media

Suitable extinguishing media

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

5.3 Special hazards arising from the substance or mixture

In case of fire, toxic and corrosive gases may be formed.

5.4 Precautions for fire-fighters

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

6 ACCIDENTIAL RELEASE MEASURES

6.2 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.

6.3 Environmental precautions

Keep away from drains.

6.4 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.

6.5 Reference to other sections

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

HANDLING AND STORAGE

7.2 Precautions for safe handling

Avoid inhalation of vapors or mist. Use normal measures for preventive fire protection.

7.3 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.

7.4 Specific end uses

Not applicable.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.2 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.3 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

9.2 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 Explosive Limits	No data available.	Oxidizing Properties	No data available.

9.3 Other safety information

No data available.

10 STABILITY AND REACTIVITY

10.2 Reactivity

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

10.3 Chemical stability

Stable under recommended storage conditions.

10.4 Possibility of hazardous reactions

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

10.5 Conditions to avoid

Bases, Halides, Metals, Alkalis, Acetonitrile.

10.6 Incompatible materials

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

10.7 Hazardous decomposition products

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

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Can cause severe burns upon contact while the vapors or mist are corrosive and can cause severe irritation or damage to the nose, throat and lungs. Ingestion of this product causes 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.

Additional Information

Classified based on available data

12 ECOLOGICAL INFORMATION

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

UN2796

14.2 UN proper shipping name

Sulfuric acid with not more than 51 percent acid

14.3 Transport hazard class(es)

8

14.4 Packaging group

Ш

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.

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 and 29 CFR 1910.1200 [OSHA]

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

16 OTHER INFORMATION

Further Information

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

End of safety data sheet

RD SYSTEMS a biotechne brand

1.	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING					
1.1	Product Identifiers					
	Product Name:	Wash Buffer Concentrate (contains Proclin 300) Mixture = 0.025%)			
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 t	he 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.mdsystems.com		
			Email address:	info@bio-techne.com		
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722		
		Toronto, ON	Fax:	902-827-6402		
		M8Z 4E6 Canada	Email address:	Canada.inquiries@bio-techne.com		
	United Kingdom:	19 Barton Lane Abingdon	Telephone:	44 (0)1235 529449		
		Science Park Abingdon,	Fax:	44 (0)1235 533420		
		OX14 3NB	Email address:	info.emea@bio-techne.com		
	China:	1193 Changning Road	Telephone:	86-400-821-3475		
		Unit 1901, Raffles Changning Office Shanghai , China	Fax: Email address:	76 (021)52371001 techsupport.cn@bio-techne.com		

1.4 Emergency Telephone Number

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

HAZARDS IDENTIFICATION 2. Classification of the substance or mixture 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] Pictogram(s): Signal Word: Warning Hazard Statement(s): H317 May cause an allergic skin reaction. Precautionary Statement(s): P261 Avoid breathing dust/fume/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+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P317 If skin irritation or rash occurs: Get medical help. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/container to an approved waste disposal plant. 23 Other Hazards - None

3. 3.1	COMPOSITION/INFORMATION	ON INGREDIENTS					
. 1	Substances Not applicable.						
.2	Mixtures						
_	Component	CAS No.	EC No.	Index No.	Classification	Conc.	
	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2-Methyl- 2H-Isothiazolin-3-one(3:1)	5965-84-9	9114-418-6	613-167-00-5	H317	=0.025%	
	FIRST AID MEASURES						
4.1	Description of first aid measures						
	General Advice Consult a doctor and show this safe	ety data sheet.					
	If Inhaled Remove to fresh air and monitor bre	athing. If breathing be	comes difficult, give oxyger	n. If breathing stops, give artifi	cial respiration. Consult a doctor.		
	In Case of Skin Contact Immediately wash skin with copious	s amounts of soap and	d water for at least 15 minu	tes. Remove contaminated c	lothing and shoes and wash before re	use. Consult a doctor.	
	In Case of Eye Contact Flush with copious amounts of water for at least 15 minutes. Consult a doctor.						
_		Ū.	-	personnel. Never give anythir	ng by mouth to an unconscious person	. Consult a doctor.	
.2	Most important symptoms and eff		-				
•	To the best of our knowledge, the ch			e not been thoroughly investig	jated.		
3	Indication of immediate medical at Show this safety data sheet to the d	-		is required			
	Show this safety data sheet to the d	octor in attendance. I		is required.			
	FIRE-FIGHTING MEASURES						
.1	Extinguishing Media						
	Suitable extinguishing media						
	Use water spray, alcohol-resistant fo	-	arbon dioxide.				
2							
	In combustion, may emit toxic fumes.						
3	Precautions for fire-fighters Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.						
	wear suitable protective clothing to	prevent contact with si	kin and eyes and sell-conta	ined breathing apparatus.			
	ACCIDENTIAL RELEASE MEASU	JRES					
.1	Personal precautions, protective e	quipment and emerge	ency procedures				
	Do not take action without suitable or gas.	protective clothing - s	see section 8 of SDS. Eva	cuate personnel to safe area	s. Ensure adequate ventilation. Avoid	d breathing vapors, mist, dust	
2	Environmental precautions						
	Do not let product enter drains.						
.3	Methods and materials for contain	ment and cleaning up)				
	Cover spillage with suitable absorb	ent material. Hold all n	naterial for appropriate dis	posal as described under sec	ction 13 of SDS.		
.4	Reference to other sections						
	For required PPE see section 8. Fo	r disposal see section	13.				
	HANDLING AND STORAGE						
1	Precautions for safe handling						
	or repeated exposure.			and aerosols. Use in a well-v	ventilated area. Keep away from sour	ces of ignition. Avoid prolonge	
2	Conditions for safe storage, includ						
•	Store in cool, well-ventilated area. K	eep away from direct :	sunlight. Keep container tig	ntly sealed until ready for use			
3	Specific end uses Not applicable.						
	EXPOSURE CONTROLS/PERSO						
1	Control parameters	THE TROTECTION					
•	Components with workplace cont	rol parameters				38 of 41	
	Contains no substances with occur						

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(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.
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

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 12.2	Toxicity
	No data available.
	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 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 and 29 CFR 1910.1200 [OSHA]
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. 40 of 41

California Proposition 65 : Proclin 300 Mixture

15.2 Chemical safety assessment

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

16. OTHER INFORMATION

Further Information

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End of safety data sheet