

1.	IDENTIFICATION OF TH	IE SUBSTANCE/MIXTURE AND OF THE COMPA	NY/UNDERTAKING			
1.1	Product Identifiers					
	Product Name:					
	Catalog Number:	DRT200				
	Components:	Human TNF RII Microplate				
		anti-human sTNF RII Conjugate				
		human TNF RII Standard				
		Assay Diluent RD1-6				
		Calibrator Diluent RD5-5				
		Calibrator Diluent RD60				
		Wash Buffer Concentrate, 25X				
		Color Reagent A				
		Color Reagent B				
		Stop Solution				
1.2	Relevant identified uses	of the substance or mixture and uses advised agai	nst			
	Identified Uses:	For research use only.				
1.3	Details of the supplier of	the safety data sheet				
1.3	Details of the supplier of Company:	the safety data sheet R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475		
1.3		-	Telephone: Fax:	1-800-343-7475 1-612-656-4400		
1.3		R&D Systems, Inc. a Bio-Techne Brand	·			
1.3		R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE	Fax:	1-612-656-4400		
1.3		R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE	Fax: Internet:	1-612-656-4400 www.rndsystems.com		
1.3	Company:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA	Fax: Internet: Email address:	1-612-656-4400 www.rndsystems.com info@bio-techne.com		
1.3	Company:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA 21 Canmotor Ave	Fax: Internet: Email address: Telephone:	1-612-656-4400 www.rndsystems.com info@bio-techne.com 1-855-668-8722		
1.3	Company:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA 21 Canmotor Ave	Fax: Internet: Email address: Telephone: Fax:	1-612-656-4400 www.rndsystems.com info@bio-techne.com 1-855-668-8722 902-827-6402		
1.3	Company: Canada:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA 21 Canmotor Ave Toronto, ON M8Z 4E6	Fax: Internet: Email address: Telephone: Fax: Email address:	1-612-656-4400 www.rndsystems.com info@bio-techne.com 1-855-668-8722 902-827-6402 Canada.inquiries@bio-techne.com		
1.3	Company: Canada:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA 21 Canmotor Ave Toronto, ON M8Z 4E6 19 Barton Lane	Fax: Internet: Email address: Telephone: Fax: Email address: Telephone:	1-612-656-4400 www.rndsystems.com info@bio-techne.com 1-855-668-8722 902-827-6402 Canada.inquiries@bio-techne.com 44 (0)1235 529449		
1.3	Company: Canada:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA 21 Canmotor Ave Toronto, ON M8Z 4E6 19 Barton Lane Abingdon Science Park	Fax: Internet: Email address: Telephone: Fax: Email address: Telephone: Fax:	1-612-656-4400 www.rndsystems.com info@bio-techne.com 1-855-668-8722 902-827-6402 Canada.inquiries@bio-techne.com 44 (0)1235 529449 44 (0)1235 533420		
1.3	Company: Canada: United Kingdom:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA 21 Canmotor Ave Toronto, ON M8Z 4E6 19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB	Fax: Internet: Email address: Telephone: Fax: Email address: Fax: Email address:	1-612-656-4400 www.rndsystems.com info@bio-techne.com 1-855-668-8722 902-827-6402 Canada.inquiries@bio-techne.com 44 (0)1235 529449 44 (0)1235 533420 info.emea@bio-techne.com		
1.3	Company: Canada: United Kingdom:	R&D Systems, Inc. a Bio-Techne Brand 614 McKinley Place NE Minneapolis, MN 55413, USA 21 Canmotor Ave Toronto, ON M8Z 4E6 19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB 1193 Changning Road	Fax: Internet: Email address: Telephone: Fax: Email address: Fax: Email address: Telephone: Telephone:	1-612-656-4400 www.rndsystems.com info@bio-techne.com 1-855-668-8722 902-827-6402 Canada.inquiries@bio-techne.com 44 (0)1235 529449 44 (0)1235 533420 info.emea@bio-techne.com 86-400-821-3475		

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

See additional safety data sheets.



1.	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE CO	MPANY/UNDERTAKING	
.1	Product Identifiers			
	Product Name:	Human TNF RII Microplate		
	Catalog Number:	890120		
.2	Relevant identified us	ses of the substance or mixture and uses advised	against	
	Identified Uses:	For research use only.		
.3	Details of the supplie	r of the safety data sheet		
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475
		614 McKinley Place NE	Fax:	1-612-656-4400
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com
			Email address:	info@bio-techne.com
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722
		Toronto, ON M8Z 4E6	Fax:	902-827-6402
			Email address:	Canada.inquiries@bio-techne.com
		10 Denter Lana		
	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
	Bio-Techne Tel: US: 61	cy, spill, leak, fire, exposure, or accident call CHEMTF 2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION		
<u>.</u>	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s	cy, spill, leak, fire, exposure, or accident call CHEMTF 2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture	29449 / China 86-400-821-347	5
2. 2.1	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n	cy, spill, leak, fire, exposure, or accident call CHEMTF 2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION	29449 / China 86-400-821-347	5
2. 2.1	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements	cy, spill, leak, fire, exposure, or accident call CHEMTF 2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regula	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2.1 2.2	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regulat need to be labeled in accordance with Regulation (EC	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2. 2.1 2.2	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regulat need to be labeled in accordance with Regulation (EC	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2. 2.1 2.2 2.3	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regulat need to be labeled in accordance with Regulation (EC	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2. 2.1 2.2 2.3 3.	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
1.4 2. 2.1 2.2 2.3 3. 3.1	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable.	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2. 2.1 2.2 2.3 3. 3.1	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2. 2.1 2.2 3. 3.1 3.2	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INF( Substances Not applicable. Mixtures Not applicable.	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regulat need to be labeled in accordance with Regulation (EC	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2.2 2.2 3. 3.1 3.2	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Not applicable. FIRST AID MEASUR	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC a) DRMATION ON INGREDIENTS	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2.2 2.2 3. 3.1 3.2	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INF( Substances Not applicable. Mixtures Not applicable.	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC a) DRMATION ON INGREDIENTS	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2.2 2.2 3. 3.1 3.2	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Not applicable. FIRST AID MEASUR Description of first ai	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC a) DRMATION ON INGREDIENTS	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2.2 2.3 3.1 3.2 4.	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Not applicable. FIRST AID MEASUR Description of first ai General Advice	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC a) DRMATION ON INGREDIENTS	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2. 2.1 2.2 2.3 3. 3.1	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Not applicable. FIRST AID MEASUR Description of first ai General Advice Not applicable.	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC a) DRMATION ON INGREDIENTS	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2.2 2.2 3. 3.1 3.2	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Not applicable. FIRST AID MEASUR Description of first ai General Advice Not applicable. If Inhaled	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC a) DRMATION ON INGREDIENTS	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2.2 2.2 3. 3.1 3.2	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Not applicable. FIRST AID MEASUR Description of first ai General Advice Not applicable. If Inhaled Not applicable. In Case of Skin Conta Not applicable.	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC a) DRMATION ON INGREDIENTS	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2.2 2.3 3.1 3.2 4.	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Not applicable. FIRST AID MEASUR Description of first ai General Advice Not applicable. If Inhaled Not applicable. In Case of Skin Conta Not applicable. In Case of Eye Conta	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC a) DRMATION ON INGREDIENTS	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].
2. 2.1 2.2 3. 3.1 3.2 4.	For chemical emergen Bio-Techne Tel: US: 61 HAZARDS IDENTIFI Classification of the s This substance does n Label Elements This product does not Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Not applicable. FIRST AID MEASUR Description of first ai General Advice Not applicable. If Inhaled Not applicable. In Case of Skin Conta Not applicable.	cy, spill, leak, fire, exposure, or accident call CHEMTF [2-379-2956 or 800-343-7475 / Europe: +44(0)1235-5 CATION substance or mixture ot meet the classification criteria according to Regular need to be labeled in accordance with Regulation (EC a) DRMATION ON INGREDIENTS	29449 / China 86-400-821-347	'5 CLP] or 29 CFR 1910.1200 [OSHA].

4.2	Most important symptoms a	and effects, both acute and delayed				
	Not applicable.					
4.3	Indication of immediate me	dical attention and special treatment needed				
	Not applicable.					
5. 5.1	FIRE-FIGHTING MEASUR Extinguishing Media	25				
0.1	Suitable extinguishing med	ia				
		stant foam, dry chemical or carbon dioxide.				
5.2		m the substance or mixture				
	None known.					
5.3	Precautions for fire-fighters	5				
	Wear suitable protective cloth	ning to prevent contact with skin and eyes and self-co	ontained breathing apparatus.			
6.	ACCIDENTAL RELEASE	<b>IEASURES</b>				
6.1	Personal precautions, prote	ective equipment and emergency procedures				
	Not applicable.					
6.2	Environmental precautions					
	Not applicable.					
6.3		containment and cleaning up				
	Not applicable.	0.1				
6.4	Reference to other sections					
0.4		8. For disposal see section 13.				
7.	HANDLING AND STORAG	E				
7.1	Precautions for safe handling	ng				
	Not applicable.					
7.2	Conditions for safe storage	, including any incompatibilities				
	Store in cool, dry place.					
7.3	Specific end uses					
	Not applicable.					
8.	EXPOSURE CONTROLS/F	PERSONAL PROTECTION				
8.1	Control parameters					
	Components with workplac	e and control parameters				
	Contains no substances with	occupational exposure limit values.				
8.2	Exposure controls					
	Appropriate Engineering Co	ontrols				
	Use in a fume hood where a	oplicable. Ensure all engineering measures describe	d under section 7 of SDS are in place.	Ensure laboratory is equipped with a safety shower and		
8.3	Personal Protective Equipm	ient				
	Eye / Face Protection					
	Not applicable.	Not applicable.				
	Skin Protection					
	Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.					
	Body Protection	Body Protection				
	Wear appropriate protective clothing.					
	<b>Respiratory Protection</b>	Respiratory Protection				
	If risk assessment indicates n	ecessary, use a suitable respirator.				
9.	PHYSICAL AND CHEMICA					
9.1	Information on basic physic	cal and chemical properties				
	Appearance	Microplate coated in antibodies	Vapor Pressure	No data available.		
	Odor	Little to none.	Vapor Density	No data available.		
	Odor Threshold	No data available.	Relative Density	No data available.		

Solubility

Partition Coefficient

No data available.

No data available.

рΗ

Melting / Freezing Point

No data available.

No data available.

	Boiling Point / Range Flash Point Evaporation Rate Flammability (Solid, Gas) Upper / Lower Flammability or Explosive Limits	No data available. No data available. No data available. No data available. No data available.	Auto ignition Temperature Decomposition Temperature Viscosity Explosive Properties Oxidizing Properties	No data available. No data available. No data available. No data available. No data available.
9.2	Other safety information No data available.			
10.	STABILITY AND REACTIVITY			
10.1	Reactivity			
	Stable under recommended transpor	t or storage conditions.		
10.2	Chemical stability			
	Stable under recommended storage	conditions.		
10.3	Possibility of hazardous reactions			
	Hazardous reactions will not occur u	nder normal transport or storage conditions.		
10.4	Conditions to avoid			
	None known.			
10.5	Incompatible materials			
	None known.			
10.6	Hazardous decomposition produc	ts		
	None known.			
11.	TOXICOLOGICAL INFORMATIO	Ν		
11.1	Information on toxicological effect	ts		
	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.			
	Gassined based on available data.			
	Classified based on available data.			
	Carcinogenicity			
	Classified based on available data.			
	Reproductive Toxicity			
	Classified based on available data.			
	Specific Target Organ Toxicity – S	ingle Exposure		
	Classified based on available data.			
	Specific Target Organ Toxicity – R	epeated Exposure		
	Classified based on available data.			
	Aspiration Hazard			
	Classified based on available data. Symptoms / Routes of Exposure			
	Inhalation:	Not a normal route of entry.		
	Ingestion: Skin:	Not a normal route of entry. Not a normal route of entry.		
	Eyes:	Not a normal route of entry.		
	Delayed/Immediate Effects:	No known symptoms.		
	Additional Information			
	Classified based on available data			
12.	ECOLOGICAL INFORMATION			
12.1	Toxicity			
	No data available.			
12.2	Persistence and degradability			
	No data available.			
12.3	Bio accumulative potential			
	No data available.			

12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.
	Contaminated Packaging
	Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.
14.	TRANSPORT INFORMATION
	Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.
14.1	UN-Number
	Does not meet the criteria for classification as hazardous for transport.
14.2	UN proper shipping name
	Does not meet the criteria for classification as hazardous for transport.
14.3	Transport hazard class(es)
	Does not meet the criteria for classification as hazardous for transport.
14.4	Packaging group
	Does not meet the criteria for classification as hazardous for transport.
14.5	Environmental hazards
	Does not meet the criteria for classification as hazardous for transport.
14.7	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.
	CERCLA Reportable Quantity: Not applicable.
	California Proposition 65: Not applicable.
15.2	Chemical safety assessment

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

#### 16. OTHER INFORMATION

# Further Information

Copyright © 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.



	IDENTIFICATION OF T	HE SUBSTANCE/MIXTURE AND OF THE COMPAN	IY/UNDERTAKING			
1.1	Product Identifiers					
	Product Name:	anti-human sTNF RII Conjugate				
	Catalog Number:	890121				
1.2	Relevant identified us	es of the substance or mixture and uses advised	against			
	Identified Uses:	For research use only.				
1.3	Details of the supplier	of the safety data sheet				
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475		
		614 McKinley Place NE	Fax:	1-612-656-4400		
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com		
			Email address:	info@bio-techne.com		
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722		
		Toronto, ON M8Z 4E6	Fax:	902-827-6402		
			Email address:	Canada.inquiries@bio-techne.com		
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449		
		Abingdon Science Park	Fax:	44 (0)1235 533420		
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com		
	China:	1193 Changning Road	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				
	For chemical emergend	xy, spill, leak, fire, exposure, or accident call CHEMTF	REC day or night: Within U.S. 1	-800-262-8200 Worldwide 1-703-741-5500		
	Bio-Techne Tel: US: 61	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.						
 2.1	HAZARDS IDENTIFICATION Classification of the substance or mixture					
	Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].					
	Sensitization, skin - Category 1					
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 read	tion.			
	Precautionary Statem	nent(s):				
	P261 P272 P280	Avoid breathing dust/fumes/gas Contaminated work clothing sh Wear protective gloves/protect	hould not be allowed out of the			

P302+P352 IF ON SKIN: Wash with plenty of soap and water. 14

2.3	Other Hazards - None	
	P501	Dispose of contents/container to an approved waste disposal plant.
	P362+P364	Take off contaminated clothing and wash it before reuse.
	P333+P317	If skin irritation or rash occurs: Get medical help.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS 3.1 Substances Not applicable. 3.2 Mixtures Component CAS No. EC No. Index No. Classification Concentration

	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2- 55965-84-9 9114-418-6 613-167-00-5 H317 <0.01% Methyl-2H-Isothiazolin-3-One (3:1)					
4.	FIRST AID MEASURES					
.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.					
.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.					
.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.					
.1	FIRE-FIGHTING MEASURES Extinguishing Media					
	Suitable extinguishing media					
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.					
.2	Special hazards arising from the substance or mixture					
	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.					
	ACCIDENTAL RELEASE MEASURES					
.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.					
.2	Environmental precautions					
	Do not let product enter drains.					
.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					
.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.					
.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.					
.3	Specific end uses					
	Not applicable.					
	EXPOSURE CONTROLS/PERSONAL PROTECTION					
1	Control parameters					
	Components with workplace and control parameters					
	Contains no substances with occupational exposure limit values.					
	Exposure controls					
.2	•					
.2	Appropriate Engineering Controls					
.2	-					
	- 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					
.2	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.					

### **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.	Auto ignition Temperature	No data available.
	Flash Point	No data available.	Decomposition Temperature	No data available.
	Evaporation Rate	No data available.	Viscosity	No data available.
	Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.
	Upper / Lower Flammability or Explosive Limits	No data available.	Oxidizing Properties	No data available.
9.2	Other safety information			

#### No data available.

#### 10. STABILITY AND REACTIVITY

## 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

### 10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

#### 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

# 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion/Irritation

#### Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

**Respiratory or Skin Sensitization** 

### Classified based on available data.

Germ Cell Mutagenicity

# Classified based on available data.

Carcinogenicity

## Classified based on available data.

Reproductive Toxicity

# Classified based on available data.

Specific Target Organ Toxicity – Single Exposure

# Classified based on available data.

Specific Target Organ Toxicity – Repeated Exposure

### Classified based on available data.

Aspiration Hazard

# Classified based on available data.

# Symptoms / Routes of Exposure

Inhalation:	There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	There may be irritation of the throat.
Skin:	There may be mild irritation at the site of contact.
Eyes:	There may be irritation and redness.
Delayed/Immediate Effects:	No known symptoms.

# Additional Information

Classified based on available data

12.	ECOLOGICAL INFORMATION
12.1	Toxicity
	No data available.
12.2	Persistence and degradability
	No data available.
12.3	Bio accumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.
	Contaminated Packaging
	Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.
14.	TRANSPORT INFORMATION
	Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.
14.1	UN-Number
	Does not meet the criteria for classification as hazardous for transport.
14.2	UN proper shipping name
	Does not meet the criteria for classification as hazardous for transport.
14.3	Transport hazard class(es)
	Does not meet the criteria for classification as hazardous for transport.
14.4	Packaging group
	Does not meet the criteria for classification as hazardous for transport.
14.5	Environmental hazards
	Does not meet the criteria for classification as hazardous for transport.
14.7	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.
	CERCLA Reportable Quantity: Not applicable.
	California Proposition 65: Not applicable.
15.2	Chemical safety assessment
	A Chemical Safety Assessment has not been made for this product.

#### 16. OTHER INFORMATION

# Further Information

Copyright © 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.



	IDENTIFICATION OF T	HE SUBSTANCE/MIXTURE AND OF THE COMPAN	IY/UNDERTAKING		
1.1	Product Identifiers				
	Product Name:	human TNF RII Standard			
	Catalog Number:	890122			
.2	Relevant identified us	es of the substance or mixture and uses advised	against		
	Identified Uses:	For research use only.			
.3	Details of the supplier	of the safety data sheet			
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475	
		614 McKinley Place NE	Fax:	1-612-656-4400	
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com	
			Email address:	info@bio-techne.com	
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722	
		Toronto, ON M8Z 4E6	Fax:	902-827-6402	
			Email address:	Canada.inquiries@bio-techne.com	
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449	
		Abingdon Science Park	Fax:	44 (0)1235 533420	
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com	
	China:	1193 Changning Road	Telephone:	86-400-821-3475	
		Unit 1901, Raffles Changning Office	Fax:	76 (021) 52371001	
		Shanghai, China	Email address:	techsupport.cn@bio-techne.com	
.4	Emergency Telephone	Number			
	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 IDENTIF	FICATION			
2.1	Classification of the substance or mixture				
	Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].				
	Sensitization, skin - C	Category 1			
2.2	Label Elements				
	Labeling according to	Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CF	R 1910.1200 [OSHA].		
	Pictogram(s):				
	Signal Word:	Warning			
	Hazard Statement(s):				

Hazaru Statement(s).		
H317	May cause an allergic skin reaction.	
Precautionary Statement(s):		
P261	Avoid breathing dust/fumes/gas/mist/vapors/spray.	
P272	Contaminated work clothing should not be allowed out of the workplace.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	
P302+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.	
Other Hazards - None		

EC No.

Index No.

Classification

CAS No.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS 3.1

# Substances

# Not applicable.

#### 3.2 Mixtures

2.3

Concentration

	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2- 55965-84-9 9114-418-6 613-167-00-5 H317 <0.1% Methyl-2H-Isothiazolin-3-One (3:1)
4.	FIRST AID MEASURES
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.
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.
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.
.1	FIRE-FIGHTING MEASURES Extinguishing Media
••	
	Suitable extinguishing media
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
2	Special hazards arising from the substance or mixture
	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.
	ACCIDENTAL RELEASE MEASURES
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.
.2	Environmental precautions
	Do not let product enter drains.
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.
.4	Reference to other sections
	For required PPE see section 8. For disposal see section 13.
	HANDLING AND STORAGE
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.
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.
3	Specific end uses
	Not applicable.
	EXPOSURE CONTROLS/PERSONAL PROTECTION
1	Control parameters
	Components with workplace and control parameters
	Contains no substances with occupational exposure limit values.
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.
3	
.3	eye wash station.

### **Skin Protection**

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

### **Body Protection**

Wear appropriate protective clothing.

# **Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

# 9.1 Information on basic physical and chemical properties

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

# No data available.

10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

## 10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

#### 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

# 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion/Irritation

#### Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

Respiratory or Skin Sensitization

Classified based on available data.

# Germ Cell Mutagenicity

Classified based on available data.

### Carcinogenicity

Classified based on available data.

**Reproductive Toxicity** 

### Classified based on available data.

Specific Target Organ Toxicity – Single Exposure

Classified based on available data.

### Specific Target Organ Toxicity – Repeated Exposure

Classified based on available data.

### Aspiration Hazard

Classified based on available data.

# Symptoms / Routes of Exposure

Inhalation:	There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	There may be irritation of the throat.
Skin:	There may be mild irritation at the site of contact.
Eyes:	There may be irritation and redness.
Delayed/Immediate Effects:	No known symptoms.

# Additional Information

Classified based on available data

12.	ECOLOGICAL INFORMATION
12.1	Toxicity
	No data available.
12.2	Persistence and degradability
	No data available.
12.3	Bio accumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.
	Contaminated Packaging
	Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.
14.	TRANSPORT INFORMATION
	Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.
14.1	UN-Number
	Does not meet the criteria for classification as hazardous for transport.
14.2	UN proper shipping name
	Does not meet the criteria for classification as hazardous for transport.
14.3	Transport hazard class(es)
	Does not meet the criteria for classification as hazardous for transport.
14.4	Packaging group
	Does not meet the criteria for classification as hazardous for transport.
14.5	Environmental hazards
	Does not meet the criteria for classification as hazardous for transport.
14.7	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.
	CERCLA Reportable Quantity: Not applicable.
	California Proposition 65: Not applicable.
15.2	Chemical safety assessment
	A Chemical Safety Assessment has not been made for this product.

#### 16. OTHER INFORMATION

# Further Information

Copyright © 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.



	IDENTIFICATION OF	THE SUBSTANCE/MIXTURE AND OF THE	E COMPANY/U	INDERTAKING			
.1	Product Identifiers						
	Product Name:	Assay Diluent RD1-6					
	Catalog Number:	895158					
2	Relevant identified us	es of the substance or mixture and uses ad	vised against				
	Identified Uses:	For research use only.					
.3	Details of the supplier	of the safety data sheet					
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Tele	ephone:	1-800-343-7475		
		614 McKinley Place NE	Fax	c	1-612-656-4400		
		Minneapolis, MN 55413, USA	Inte	ernet:	www.rndsystems.com		
			Em	ail address:	info@bio-techne.com		
	Canada:	21 Canmotor Ave	Tel	ephone:	1-855-668-8722		
	odridddi	Toronto, ON M8Z 4E6	Fax		902-827-6402		
				ail address:	Canada.inquiries@bio-techne.com		
	United Kingdom:	19 Barton Lane	Tel	ephone:	44 (0)1235 529449		
	5	Abingdon Science Park	Fax		44 (0)1235 533420		
		Abingdon, OX14 3NB		ail address:	info.emea@bio-techne.com		
	China:	•			-		
	Gnina.	1193 Changning Road		ephone:	86-400-821-3475		
		Unit 1901, Raffles Changning Office	Fax		76 (021) 52371001		
		Shanghai, China		ail address:	techsupport.cn@bio-techne.com		
	HAZARDS IDENTIFIC	2-379-2956 or 800-343-7475 / Europe: +44(0)1: 	235-529449 / Cł	nina 86-400-821-3475			
		CATION	235-529449 / Cr	nina 86-400-821-3475			
	HAZARDS IDENTIFIC Classification of the s	CATION			P] or 29 CFR 1910.1200 [OSHA].		
.1	HAZARDS IDENTIFIC Classification of the s	CATION ubstance or mixture			P] or 29 CFR 1910.1200 [OSHA].		
.1	HAZARDS IDENTIFIC Classification of the s This substance does no Label Elements	CATION ubstance or mixture of meet the classification criteria according to Re	egulation (EC) N	o 1272/2008 [GHS/CLI			
.1	HAZARDS IDENTIFIC Classification of the s This substance does no Label Elements	CATION ubstance or mixture	egulation (EC) N	o 1272/2008 [GHS/CLI			
.1 .2 .3	HAZARDS IDENTIFIC Classification of the s This substance does no Label Elements This product does not r Other Hazards - None	CATION ubstance or mixture of meet the classification criteria according to Re need to be labeled in accordance with Regulation	egulation (EC) N	o 1272/2008 [GHS/CLI			
.1 .2 .3	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None	CATION ubstance or mixture of meet the classification criteria according to Re	egulation (EC) N	o 1272/2008 [GHS/CLI			
.1 .2 .3	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances	CATION ubstance or mixture of meet the classification criteria according to Re need to be labeled in accordance with Regulation	egulation (EC) N	o 1272/2008 [GHS/CLI			
.1 .2 .3	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable.	CATION ubstance or mixture of meet the classification criteria according to Re need to be labeled in accordance with Regulation	egulation (EC) N	o 1272/2008 [GHS/CLI			
.1 .2 .3	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances	CATION ubstance or mixture of meet the classification criteria according to Re need to be labeled in accordance with Regulation	egulation (EC) N	o 1272/2008 [GHS/CLI		Conc.	
.1 .2 .3 .1	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures	CATION ubstance or mixture of meet the classification criteria according to Re need to be labeled in accordance with Regulation PRMATION ON INGREDIENTS	egulation (EC) N	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA].	<u>Conc.</u> < 0.1%	
.1 .2 .3 .1 .2	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide	CATION ubstance or mixture of meet the classification criteria according to Re need to be labeled in accordance with Regulation PRMATION ON INGREDIENTS Cas No. 26628-22-8	egulation (EC) N on (EC) No 1272 EC No.	o 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
.1 .2 .3 .1 .2	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide	CATION ubstance or mixture ot meet the classification criteria according to Re- need to be labeled in accordance with Regulation PRMATION ON INGREDIENTS Cas No. 26628-22-8 ES	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
.1 .2 .3 .1 .2	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide FIRST AID MEASURI Description of first aid	CATION ubstance or mixture ot meet the classification criteria according to Re- need to be labeled in accordance with Regulation PRMATION ON INGREDIENTS Cas No. 26628-22-8 ES	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
.1 .2 .3 .1 .2	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide FIRST AID MEASURE Description of first aid General Advice	CATION ubstance or mixture of meet the classification criteria according to Re- need to be labeled in accordance with Regulation PRMATION ON INGREDIENTS Cas No. 26628-22-8 ES I measures	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
.1 .2 	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide FIRST AID MEASURI Description of first aid General Advice Consult a doctor and sh	CATION ubstance or mixture ot meet the classification criteria according to Re- need to be labeled in accordance with Regulation PRMATION ON INGREDIENTS Cas No. 26628-22-8 ES	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
.1 .2 	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide FIRST AID MEASURI Description of first aid General Advice Consult a doctor and sh If Inhaled	CATION ubstance or mixture of meet the classification criteria according to Re- need to be labeled in accordance with Regulation RMATION ON INGREDIENTS Cas No. 26628-22-8 ES I measures now this safety data sheet.	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
.1 .2 .3 .1 .2	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide FIRST AID MEASURI Description of first aid General Advice Consult a doctor and sh	CATION ubstance or mixture ot meet the classification criteria according to Re need to be labeled in accordance with Regulation RMATION ON INGREDIENTS Cas No. 26628-22-8 ES I measures now this safety data sheet. d monitor breathing.	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
.1 .2 .3 .1 .2	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide FIRST AID MEASURI Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Conta	CATION ubstance or mixture ot meet the classification criteria according to Re need to be labeled in accordance with Regulation RMATION ON INGREDIENTS Cas No. 26628-22-8 ES I measures now this safety data sheet. d monitor breathing.	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
1 2 3	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide FIRST AID MEASURI Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Conta	CATION ubstance or mixture ot meet the classification criteria according to Re meed to be labeled in accordance with Regulation PRMATION ON INGREDIENTS Cas No. 26628-22-8 ES I measures now this safety data sheet. I monitor breathing. ct I di water. If irritation occurs, consult a doctor.	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
.1 .2 .3 .1 .2	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide FIRST AID MEASURI Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Conta Wash skin with soap an In Case of Eye Contac	CATION ubstance or mixture ot meet the classification criteria according to Re meed to be labeled in accordance with Regulation PRMATION ON INGREDIENTS Cas No. 26628-22-8 ES I measures now this safety data sheet. I monitor breathing. ct I di water. If irritation occurs, consult a doctor.	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		
2.2 2.3 3. 3.1 3.2 4.	HAZARDS IDENTIFIC Classification of the s This substance does not Label Elements This product does not r Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide FIRST AID MEASURI Description of first aid General Advice Consult a doctor and sh If Inhaled Remove to fresh air and In Case of Skin Conta Wash skin with soap an In Case of Eye Contac	CATION ubstance or mixture ot meet the classification criteria according to Re meed to be labeled in accordance with Regulation PRMATION ON INGREDIENTS Cas No. 26628-22-8 ES I measures now this safety data sheet. d monitor breathing. ct id water. If irritation occurs, consult a doctor. ct	egulation (EC) N on (EC) No 1272 EC No.	lo 1272/2008 [GHS/CLI /2008 [GHS/CLP] or 29	9 CFR 1910.1200 [OSHA]. Classification		

Rinse mouth with water. Consult a doctor if you feel unwell.

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

Odor Threshold

рH

No data available.

No data available.

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

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

### Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. 5. FIRE-FIGHTING MEASURES 5.1 **Extinguishing Media** Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. 5.2 Special hazards arising from the substance or mixture In combustion, may emit toxic fumes. 5.3 Precautions for fire-fighters Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus. 6. ACCIDENTAL 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. EXPOSURE CONTROLS/PERSONAL PROTECTION 8. 8.1 **Control parameters** Components with workplace and 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. 8.3 **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 Lyophilized white powder or liquid. Vapor Pressure No data available. Appearance Odor Little to none. Vapor Density No data available.

**Relative Density** 

Solubility

No data available.

No data available.

	Melting / Freezing Point	No data available.	Partition Coefficient	No data available.			
	Boiling Point / Range	No data available.	Auto ignition Temperature	No data available.			
	Flash Point	No data available.	Decomposition Temperature	No data available.			
	Evaporation Rate	No data available.	Viscosity	No data available.			
	Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.			
	Upper / Lower Flammability or Explosive Limits	No data available.	Oxidizing Properties	No data available.			
.2	Other safety information No data available.						
0.	STABILITY AND REACTIVITY						
0.1	Reactivity						
	Stable under recommended transpor	rt or storage conditions.					
0.2	Chemical stability						
	Stable under recommended storage	conditions.					
0.3	Possibility of hazardous reactions	\$					
		nder normal transport or storage conditior	ns. Decomposition may occur on exposure to condit	ions or materials listed below.			
10.4	Conditions to avoid						
10.5	Heat, moisture. Incompatible materials						
	Strong acids/alkalis, strong oxidizing	/reducing agents.					
10.6	Hazardous decomposition produc						
	Strong acids/alkalis, strong oxidizing	/reducing agents.					
11.	TOXICOLOGICAL INFORMATIO	N					
1.1	Information on toxicological effect	ts					
	Acute Toxicity						
	Classified based on available data.						
	Skin Corrosion/Irritation						
	Classified based on available data.						
	Serious Eye Damage / Irritation						
	Classified based on available data.						
	Respiratory or Skin Sensitization						
	Classified based on available data.						
	Germ Cell Mutagenicity						
	Classified based on available data.						
	Carcinogenicity						
	Classified based on available data.						
	Reproductive Toxicity						
	Classified based on available data.						
	Specific Target Organ Toxicity – Single Exposure						
	Classified based on available data.						
	Specific Target Organ Toxicity – Repeated Exposure						
	Classified based on available data.						
	Aspiration Hazard						
	Classified based on available data. Symptoms / Routes of Exposure						
	Inhalation:	There may be irritation of the throat with	h 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	of contact.				
	Eyes:	There may be irritation and redness.					
	Delayed/Immediate Effects:	No known symptoms.					
	Additional Information						
	Classified based on available data						

No data available.

#### 12.2 Persistence and degradability

No data available.

12.3	Bio accumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.
	Contaminated Packaging
	Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.
14.	TRANSPORT INFORMATION
14.1	Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA. UN-Number
	Does not meet the criteria for classification as hazardous for transport.
14.2	UN proper shipping name
	Does not meet the criteria for classification as hazardous for transport.
14.3	Transport hazard class(es)
	Does not meet the criteria for classification as hazardous for transport.
14.4	Packaging group
	Does not meet the criteria for classification as hazardous for transport.
14.5	Environmental hazards
	Does not meet the criteria for classification as hazardous for transport.
14.7	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.
	CERCLA Reportable Quantity: Not applicable.
	California Proposition 65: Not applicable.
15.2	Chemical safety assessment
	A Chemical Safety Assessment has not been made for this product.
16.	OTHER INFORMATION

# **Further Information**

Copyright © 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.



	IDENTIFICATION OF 1	HE SUBSTANCE/MIXTURE AND OF THE COMPAN	IY/UNDERTAKING				
.1	Product Identifiers						
	Product Name:	Calibrator Diluent RD5-5					
	Catalog Number:	895485					
1.2	Relevant identified us	es of the substance or mixture and uses advised	against				
	Identified Uses:	For research use only.					
1.3	Details of the supplier	of the safety data sheet					
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475			
		614 McKinley Place NE	Fax:	1-612-656-4400			
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com			
			Email address:	info@bio-techne.com			
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722			
		Toronto, ON M8Z 4E6	Fax:	902-827-6402			
			Email address:	Canada.inquiries@bio-techne.com			
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449			
		Abingdon Science Park	Fax:	44 (0)1235 533420			
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com			
	China:	1193 Changning Road	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					
	For chemical emergend	xy, spill, leak, fire, exposure, or accident call CHEMTF	REC day or night: Within U.S. 1	-800-262-8200 Worldwide 1-703-741-5500			
	Bio-Techne Tel: US: 61	2-379-2956 or 800-343-7475 / Europe: +44(0)1235-	529449 / China 86-400-821-34	75			
2.							
2. 2.1	HAZARDS IDENTIFICATION Classification of the substance or mixture						
	Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].						
	Sensitization, skin - Category 1						
2.2	Label Elements						
2.2							
	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 read	tion.				
	Precautionary Statem	nent(s):					
	P261	Avoid breathing dust/fumes/gas	s/mist/vapors/spray.				
	P272	Contaminated work clothing sh Wear protective gloups/protect					
	P280	Wear protective gloves/protect		protection.			

P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P317 If skin irritation or rash occurs: Get medical help

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.

2.3 Other Hazards - None

3. 3.1	COMPOSITION/INFORMATION ON INGREDIENTS Substances					
	Not applicable.					
3.2	Mixtures					
	Component	CAS No.	EC No.	Index No.	Classification	Concentration

	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2- 55965-84-9 9114-418-6 613-167-00-5 H317 <0.01% Methyl-2H-Isothiazolin-3-One (3:1)
4.	FIRST AID MEASURES
.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.
.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.
.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.
.1	FIRE-FIGHTING MEASURES Extinguishing Media
	Suitable extinguishing media
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
.2	Special hazards arising from the substance or mixture
	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.
	ACCIDENTAL RELEASE MEASURES
.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.
.2	Environmental precautions
	Do not let product enter drains.
.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
.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.
.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.
.3	Specific end uses
	Not applicable.
	EXPOSURE CONTROLS/PERSONAL PROTECTION
1	Control parameters
	Components with workplace and control parameters
	Contains no substances with occupational exposure limit values.
	Exposure controls
.2	•
.2	Appropriate Engineering Controls
.2	-
	- 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
.2	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.

### **Skin Protection**

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

### **Body Protection**

Wear appropriate protective clothing.

# Respiratory Protection

If risk assessment indicates necessary, use a suitable respirator.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

# 9.1 Information on basic physical and chemical properties

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

# 9.2 Other safety information

No data available.

#### 10. STABILITY AND REACTIVITY

## 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

## 10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

#### 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

# 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion/Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

**Respiratory or Skin Sensitization** 

Classified based on available data.

# Germ Cell Mutagenicity

Classified based on available data.

# Carcinogenicity

Classified based on available data.

Reproductive Toxicity

## Classified based on available data.

Specific Target Organ Toxicity – Single Exposure

### Classified based on available data.

Specific Target Organ Toxicity – Repeated Exposure

Classified based on available data.

### Aspiration Hazard

Classified based on available data.

# Symptoms / Routes of Exposure

Inhalation:	There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	There may be irritation of the throat.
Skin:	There may be mild irritation at the site of contact.
Eyes:	There may be irritation and redness.
Delayed/Immediate Effects:	No known symptoms.

# Additional Information

Classified based on available data

12.	ECOLOGICAL INFORMATION
12.1	Toxicity
	No data available.
12.2	Persistence and degradability
	No data available.
12.3	Bio accumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.
	Contaminated Packaging
	Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.
14.	TRANSPORT INFORMATION
	Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.
14.1	UN-Number
	Does not meet the criteria for classification as hazardous for transport.
14.2	UN proper shipping name
	Does not meet the criteria for classification as hazardous for transport.
14.3	Transport hazard class(es)
	Does not meet the criteria for classification as hazardous for transport.
14.4	Packaging group
	Does not meet the criteria for classification as hazardous for transport.
14.5	Environmental hazards
	Does not meet the criteria for classification as hazardous for transport.
14.7	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.
	CERCLA Reportable Quantity: Not applicable.
	California Proposition 65: Not applicable.
15.2	Chemical safety assessment
	A Chemical Safety Assessment has not been made for this product.

#### 16. OTHER INFORMATION

# Further Information

Copyright © 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.



	IDENTIFICATION OF T	HE SUBSTANCE/MIXTURE AND OF THE COMPAN	IY/UNDERTAKING				
.1	Product Identifiers						
	Product Name:	Calibrator Diluent RD60					
	Catalog Number:	895120					
.2	Relevant identified us	es of the substance or mixture and uses advised	against				
	Identified Uses:	For research use only.					
.3	Details of the supplier	of the safety data sheet					
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475			
		614 McKinley Place NE	Fax:	1-612-656-4400			
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com			
			Email address:	info@bio-techne.com			
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722			
		Toronto, ON M8Z 4E6	Fax:	902-827-6402			
			Email address:	Canada.inquiries@bio-techne.com			
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449			
		Abingdon Science Park	Fax:	44 (0)1235 533420			
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com			
	China:	1193 Changning Road	Telephone:	86-400-821-3475			
		Unit 1901, Raffles Changning Office	Fax:	76 (021) 52371001			
		Shanghai, China	Email address:	techsupport.cn@bio-techne.com			
.4	Emergency Telephone Number						
	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 IDENTIF	TCATION					
2.1	Classification of the substance or mixture						
	Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].						
	Sensitization, skin - Category 1						
2.2	Label Elements						
	Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].						
	Pictogram(s):	(!)					
		~					
	Signal Word:	Warning					

	H317	May cause an allergic skin reaction.
	Precautionary Statement(s):	
	P261 P272 P280 P302+P352 P333+P317 P362+P364 P501	Avoid breathing dust/fumes/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical help. Take off contaminated clothing and wash it before reuse. Dispose of contents/container to an approved waste disposal plant.
2.3	Other Hazards - None	
3. 3.1	COMPOSITION/INFORMATIO	N ON INGREDIENTS

EC No.

Index No.

Classification

CAS No.

# 3. 3.1

# Not applicable.

#### 3.2 Mixtures

# Component

Concentration

	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2- 55965-84-9 9114-418-6 613-167-00-5 H317 <0.01% Methyl-2H-Isothiazolin-3-One (3:1)
4.	FIRST AID MEASURES
.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.
.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.
.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.
.1	FIRE-FIGHTING MEASURES Extinguishing Media
	Suitable extinguishing media
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
.2	Special hazards arising from the substance or mixture
	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.
	ACCIDENTAL RELEASE MEASURES
.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.
.2	Environmental precautions
	Do not let product enter drains.
.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
.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.
.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.
.3	Specific end uses
	Not applicable.
	EXPOSURE CONTROLS/PERSONAL PROTECTION
1	Control parameters
	Components with workplace and control parameters
	Contains no substances with occupational exposure limit values.
	Exposure controls
.2	•
.2	Appropriate Engineering Controls
.2	-
	- 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
.2	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.

### **Skin Protection**

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

### **Body Protection**

Wear appropriate protective clothing.

# Respiratory Protection

If risk assessment indicates necessary, use a suitable respirator.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

# 9.1 Information on basic physical and chemical properties

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

# No data available.

#### 10. STABILITY AND REACTIVITY

# 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

### 10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

#### 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

# 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion/Irritation

Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

**Respiratory or Skin Sensitization** 

Classified based on available data.

# Germ Cell Mutagenicity

Classified based on available data.

# Carcinogenicity

Classified based on available data.

Reproductive Toxicity

## Classified based on available data.

Specific Target Organ Toxicity – Single Exposure

Classified based on available data.

### Specific Target Organ Toxicity – Repeated Exposure

Classified based on available data.

### Aspiration Hazard

Classified based on available data.

# Symptoms / Routes of Exposure

Inhalation:	There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	There may be irritation of the throat.
Skin:	There may be mild irritation at the site of contact.
Eyes:	There may be irritation and redness.
Delayed/Immediate Effects:	No known symptoms.

# Additional Information

Classified based on available data

12.	ECOLOGICAL INFORMATION
12.1	Toxicity
	No data available.
12.2	Persistence and degradability
	No data available.
12.3	Bio accumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.
	Contaminated Packaging
	Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.
14.	TRANSPORT INFORMATION
	Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.
14.1	UN-Number
	Does not meet the criteria for classification as hazardous for transport.
14.2	UN proper shipping name
	Does not meet the criteria for classification as hazardous for transport.
14.3	Transport hazard class(es)
	Does not meet the criteria for classification as hazardous for transport.
14.4	Packaging group
	Does not meet the criteria for classification as hazardous for transport.
14.5	Environmental hazards
	Does not meet the criteria for classification as hazardous for transport.
14.7	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.
	CERCLA Reportable Quantity: Not applicable.
	California Proposition 65: Not applicable.
15.2	Chemical safety assessment
	A Chemical Safety Assessment has not been made for this product.

#### 16. OTHER INFORMATION

# Further Information

Copyright © 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.



1.	IDENTIFICATION OF T	HE SUBSTANCE/MIXTURE AND OF THE COMPAN	IY/UNDERTAKING				
1.1	Product Identifiers						
	Product Name:	Wash Buffer 25X Concentrate					
	Catalog Number:	895003					
1.2	Relevant identified us	es of the substance or mixture and uses advised	against				
	Identified Uses:	For research use only.					
1.3	Details of the supplier	of the safety data sheet					
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475			
		614 McKinley Place NE	Fax:	1-612-656-4400			
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com			
			Email address:	info@bio-techne.com			
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722			
		Toronto, ON M8Z 4E6	Fax:	902-827-6402			
			Email address:	Canada.inquiries@bio-techne.com			
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449			
		Abingdon Science Park	Fax:	44 (0)1235 533420			
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com			
	China:	1193 Changning Road	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						
	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.		7647101					
2. 2.1	HAZARDS IDENTIFICATION Classification of the substance or mixture						
	Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].						
	Sensitization, skin - Category 1						
2.2							
2.2	Label Elements						
	Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]. Pictogram(s):						
	r loogram(s).						
	Signal Word:	Warning					
	Hazard Statement(s):						
	H317	May cause an allergic skin read	tion.				
	Precautionary Statem	nent(s):					
	P261 P272 P280 P302+P352 P333+P317		nould not be allowed out of the ive clothing/eye protection/face of soap and water.	•			

If skin irritation or rash occurs: Get medical help.

Take off contaminated clothing and wash it before reuse.

Dispose of contents/container to an approved waste disposal plant.

P362+P364 Other Hazards - None 2.3

P501

P333+P317

3. 3.1	COMPOSITION/INFORMATION ON INGREDIENTS Substances					
	Not applicable.					
3.2	Mixtures					
	Component	CAS No.	EC No.	Index No.	Classification	Concentration

	Mixture of 5-Chloro-2-Methyl-4- Isothiazolin-3-One and 2- 55965-84-9 9114-418-6 613-167-00-5 H317 <0.1% Methyl-2H-Isothiazolin-3-One (3:1)						
4.	FIRST AID MEASURES						
4.1	Description of first aid measures						
	General Advice						
	Consult a doctor and show this safety data sheet.						
	If Inhaled						
	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.						
	In Case of Skin Contact						
	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.						
	In Case of Eye Contact						
	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.						
	If Swallowed						
	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.						
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.						
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.						
.1	FIRE-FIGHTING MEASURES Extinguishing Media						
	Suitable extinguishing media						
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.						
2	Special hazards arising from the substance or mixture						
	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.						
	ACCIDENTAL RELEASE MEASURES						
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.						
.2	Environmental precautions						
	Do not let product enter drains.						
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.						
.4	Reference to other sections						
	For required PPE see section 8. For disposal see section 13.						
	HANDLING AND STORAGE						
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.						
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.						
3	Specific end uses						
	Not applicable.						
	EXPOSURE CONTROLS/PERSONAL PROTECTION						
1	Control parameters						
	Components with workplace and control parameters						
	Contains no substances with occupational exposure limit values.						
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.						
3							
.3	eye wash station.						

### **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	Clear liquid	Vapor Pressure	No data available.
Odor	Little to none	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
pH	No data available.	Solubility	No data available.
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Auto ignition Temperature	No data available.
Flash Point	No data available.	Decomposition Temperature	No data available.
Evaporation Rate	No data available.	Viscosity	No data available.
Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.
Upper / Lower Flammability or Explosive Limits	No data available.	Oxidizing Properties	No data available.

No data available.

#### 10. STABILITY AND REACTIVITY

Other safety information

## 10.1 Reactivity

9.2

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Heat, moisture.

# 10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

#### 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

# 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion/Irritation

### Classified based on available data.

Serious Eye Damage / Irritation

Classified based on available data.

**Respiratory or Skin Sensitization** 

Classified based on available data.

### Germ Cell Mutagenicity

Classified based on available data.

# Carcinogenicity

Classified based on available data.

**Reproductive Toxicity** 

### Classified based on available data.

Specific Target Organ Toxicity – Single Exposure

### Classified based on available data.

Specific Target Organ Toxicity – Repeated Exposure

### Classified based on available data.

# Aspiration Hazard

Classified based on available data.

# Symptoms / Routes of Exposure

Inhalation:	There may be irritation of the throat with a feeling of tightness in the chest.
Ingestion:	There may be irritation of the throat.
Skin:	There may be mild irritation at the site of contact.
Eyes:	There may be irritation and redness.
Delayed/Immediate Effects:	No known symptoms.

# Additional Information

Classified based on available data

12.	ECOLOGICAL INFORMATION
12.1	Toxicity
	No data available.
12.2	Persistence and degradability
	No data available.
12.3	Bio accumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.
	Contaminated Packaging
	Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.
14.	TRANSPORT INFORMATION
	Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.
14.1	UN-Number
	Does not meet the criteria for classification as hazardous for transport.
14.2	UN proper shipping name
	Does not meet the criteria for classification as hazardous for transport.
14.3	Transport hazard class(es)
	Does not meet the criteria for classification as hazardous for transport.
14.4	Packaging group
	Does not meet the criteria for classification as hazardous for transport.
14.5	Environmental hazards
	Does not meet the criteria for classification as hazardous for transport.
14.7	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.
	CERCLA Reportable Quantity: Not applicable.
	California Proposition 65: Not applicable.
15.2	Chemical safety assessment
	A Chemical Safety Assessment has not been made for this product.

#### 16. OTHER INFORMATION

# Further Information

Copyright © 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.



	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING							
.1	Product Identifiers							
	Product Name: Color Reagent A							
	Catalog Number:	895000						
1.2	Relevant identified uses of the substance or mixture and uses advised against							
	Identified Uses:	For research use only.						
.3	Details of the supplier of the safety data sheet							
	Company: R&D Systems, Inc. a Bio-Techne Brand		d Tel	ephone:	1-800-343-7475	5		
		614 McKinley Place NE		Fax	c	1-612-656-4400	0	
		Minneapolis, MN 55413	3, USA	Inte	ernet:	www.rndsystem	ns.com	
				Em	ail address:	info@bio-techne	e.com	
	Canada:	21 Canmotor Ave		Tel	ephone:	1-855-668-8722	2	
		Toronto, ON M8Z 4E6		Fax	<:	902-827-6402		
				Em	ail address:	Canada.inquirie	es@bio-techne.com	
	United Kingdom:	19 Barton Lane		Tel	ephone:	44 (0)1235 529	449	
		Abingdon Science Park	¢	Fax	¢:	44 (0)1235 533	420	
		Abingdon, OX14 3NB		Em	ail address:	info.emea@bio	-techne.com	
	China:	1193 Changning Road		Tel	ephone:	86-400-821-347	75	
		Unit 1901, Raffles Cha	ngning Office	Fax	c	76 (021) 52371	001	
4	-	Shanghai, China <b>9 Number</b> 19, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475		CHEMTREC day or	-	-800-262-8200 Worldwid	@bio-techne.com de 1-703-741-5500	
<u>.</u>	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC	<b>9 Number</b> xy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION		CHEMTREC day or	r night: Within U.S. 1	-800-262-8200 Worldwid	-	
<u>.</u>	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su	<b>9 Number</b> xy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION	/ Europe: +44(0	CHEMTREC day oi 1)1235-529449 / Cł	r night: Within U.S. 1 nina 86-400-821-347	-800-262-8200 Worldwid 5	de 1-703-741-5500	
2. 2.1	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su	Aumber sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture	/ Europe: +44(0	CHEMTREC day oi 1)1235-529449 / Cł	r night: Within U.S. 1 nina 86-400-821-347	-800-262-8200 Worldwid 5	de 1-703-741-5500	
2. 2.1	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements	Aumber sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture	/ Europe: +44(0	CHEMTREC day or 1)1235-529449 / Cł Norgulation (EC) No	r night: Within U.S. 1 nina 86-400-821-347 o 1272/2008 [GHS/C	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120	de 1-703-741-5500 00 [OSHA].	
2. 2.1 2.2	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements	Aumber sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture a meet the classification criteri	/ Europe: +44(0	CHEMTREC day or 1)1235-529449 / Cł Norgulation (EC) No	r night: Within U.S. 1 nina 86-400-821-347 o 1272/2008 [GHS/C	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120	de 1-703-741-5500 00 [OSHA].	
2. 2.1 2.2	For chemical emergence Bio-Techne Tel: US: 61: HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne	Aumber sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture a meet the classification criteri	/ Europe: +44(0	CHEMTREC day or 1)1235-529449 / Cł Norgulation (EC) No	r night: Within U.S. 1 nina 86-400-821-347 o 1272/2008 [GHS/C	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120	de 1-703-741-5500 00 [OSHA].	
2. 2.1 2.2	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not net Other Hazards	Aumber sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture a meet the classification criteri	/ Europe: +44(0	CHEMTREC day or 1)1235-529449 / Cł Norgulation (EC) No	r night: Within U.S. 1 nina 86-400-821-347 o 1272/2008 [GHS/C	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120	de 1-703-741-5500 00 [OSHA].	
2. 2.1 2.2 2.3 3.	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOR	Aumber sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture a meet the classification criteri	/ Europe: +44(0	CHEMTREC day or 1)1235-529449 / Cł Norgulation (EC) No	r night: Within U.S. 1 nina 86-400-821-347 o 1272/2008 [GHS/C	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120	de 1-703-741-5500 00 [OSHA].	
2. 2.1 2.2 2.3 3.	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOR Substances	e Number sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture a meet the classification criteri red to be labelled in accordan	/ Europe: +44(0	CHEMTREC day or 1)1235-529449 / Cł Norgulation (EC) No	r night: Within U.S. 1 nina 86-400-821-347 o 1272/2008 [GHS/C	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120	de 1-703-741-5500 00 [OSHA].	
2. 2.1 2.2 2.3 3. 3.1	For chemical emergence Bio-Techne Tel: US: 613 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOR Substances Not applicable.	e Number sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture a meet the classification criteri red to be labelled in accordan	/ Europe: +44(0	CHEMTREC day or 1)1235-529449 / Cł Norgulation (EC) No	r night: Within U.S. 1 nina 86-400-821-347 o 1272/2008 [GHS/C	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120	de 1-703-741-5500 00 [OSHA].	
2. 2.1 2.2 2.3 3. 3.1	For chemical emergence Bio-Techne Tel: US: 613 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOR Substances Not applicable. Mixtures	A Number sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture at meet the classification criterion ared to be labelled in accordan ared to be labelled in accordan	/ Europe: +44(0 ia according to F ice with Regulati	CHEMTREC day or 1)1235-529449 / Cł Regulation (EC) No ion (EC) No 1272/2	r night: Within U.S. 1 nina 86-400-821-347 o 1272/2008 [GHS/C 2008 [GHS/CLP] or 2	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120 29 CFR 1910.1200 [OSH	de 1-703-741-5500	
2. 2.1 2.2 2.3 3.	For chemical emergence Bio-Techne Tel: US: 613 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOR Substances Not applicable.	e Number sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture a meet the classification criteri red to be labelled in accordan	/ Europe: +44(0	CHEMTREC day or 1)1235-529449 / Cł Norgulation (EC) No	r night: Within U.S. 1 hina 86-400-821-347 o 1272/2008 [GHS/C 2008 [GHS/CLP] or 2	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120	de 1-703-741-5500 00 [OSHA].	
2. 2.1 2.2 2.3	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOF Substances Not applicable. Mixtures Component	e Number sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture at meet the classification criterion ared to be labelled in accordan RMATION ON INGREDIEN CAS No.	/ Europe: +44(0 ia according to F ice with Regulati TS EC No.	CHEMTREC day or 1)1235-529449 / Cł Regulation (EC) No ion (EC) No 1272/2	r night: Within U.S. 1 hina 86-400-821-347 b 1272/2008 [GHS/C 2008 [GHS/CLP] or 2 2008 [GHS/CLP] or 2 Classi H312, H315, H	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120 29 CFR 1910.1200 [OSH	de 1-703-741-5500 00 [OSHA]. HA].	
2. 2.1 2.2 3. 3.1 3.2	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOF Substances Not applicable. Mixtures Component N,N-Dimethylformamide	A Number by spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture at meet the classification criteri at the classificat	/ Europe: +44(0 ia according to F ice with Regulati TS EC No. 200-679-5	CHEMTREC day or ()1235-529449 / Ch Regulation (EC) No ion (EC) No 1272/2	r night: Within U.S. 1 hina 86-400-821-347 b 1272/2008 [GHS/C 2008 [GHS/CLP] or 2 2008 [GHS/CLP] or 2 Classi H312, H315, H	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120 29 CFR 1910.1200 [OSH fication 319, H332, H360	de 1-703-741-5500 00 [OSHA]. HA]. Concentration < 25%	
2. 2.1 2.2 2.3 3. 3.1 3.2 4.	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOR Substances Not applicable. Mixtures Component N,N-Dimethylformamide Tetramethylbenzidine	A Number sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION ATION abstance or mixture at meet the classification criteri at the cla	/ Europe: +44(0 ia according to F ice with Regulati TS EC No. 200-679-5	CHEMTREC day or (1)1235-529449 / Ch Regulation (EC) No ion (EC) No 1272/2	r night: Within U.S. 1 hina 86-400-821-347 b 1272/2008 [GHS/C 2008 [GHS/CLP] or 2 2008 [GHS/CLP] or 2 Classi H312, H315, H	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120 29 CFR 1910.1200 [OSH fication 319, H332, H360	de 1-703-741-5500 00 [OSHA]. HA]. Concentration < 25%	
2. 2.1 2.2 2.3 3. 3.1 3.2 4.	For chemical emergence Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOR Substances Not applicable. Mixtures Component N,N-Dimethylformamide Tetramethylbenzidine	A Number sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION ATION abstance or mixture at meet the classification criteri at the cla	/ Europe: +44(0 ia according to F ice with Regulati TS EC No. 200-679-5	CHEMTREC day or (1)1235-529449 / Ch Regulation (EC) No ion (EC) No 1272/2	r night: Within U.S. 1 hina 86-400-821-347 b 1272/2008 [GHS/C 2008 [GHS/CLP] or 2 2008 [GHS/CLP] or 2 Classi H312, H315, H	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120 29 CFR 1910.1200 [OSH fication 319, H332, H360	de 1-703-741-5500 00 [OSHA]. HA]. Concentration < 25%	
1.4 2. 2.1 2.2 2.3 3. 3.1 3.2 4. 4.1	For chemical emergend Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOF Substances Not applicable. Mixtures Component N,N-Dimethylformamide Tetramethylbenzidine FIRST AID MEASURE Description of first aid General Advice	A Number sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION ATION abstance or mixture at meet the classification criteri at the cla	/ Europe: +44(0 ia according to F ice with Regulati TS EC No. 200-679-5	CHEMTREC day or (1)1235-529449 / Ch Regulation (EC) No ion (EC) No 1272/2	r night: Within U.S. 1 hina 86-400-821-347 b 1272/2008 [GHS/C 2008 [GHS/CLP] or 2 2008 [GHS/CLP] or 2 Classi H312, H315, H	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120 29 CFR 1910.1200 [OSH fication 319, H332, H360	de 1-703-741-5500 00 [OSHA]. HA]. Concentration < 25%	
2. 2.1 2.2 2.3 3. 3.1 3.2 4.	For chemical emergend Bio-Techne Tel: US: 612 HAZARDS IDENTIFIC Classification of the su This substance does not Label Elements The product does not ne Other Hazards None. COMPOSITION/INFOF Substances Not applicable. Mixtures Component N,N-Dimethylformamide Tetramethylbenzidine FIRST AID MEASURE Description of first aid General Advice	A Number sy, spill, leak, fire, exposure, c 2-379-2956 or 800-343-7475 ATION abstance or mixture at meet the classification criterion ared to be labelled in accordan RMATION ON INGREDIEN CAS No. 68-12-2 54827-17-7 S measures	/ Europe: +44(0 ia according to F ice with Regulati TS EC No. 200-679-5	CHEMTREC day or (1)1235-529449 / Ch Regulation (EC) No ion (EC) No 1272/2	r night: Within U.S. 1 hina 86-400-821-347 b 1272/2008 [GHS/C 2008 [GHS/CLP] or 2 2008 [GHS/CLP] or 2 Classi H312, H315, H	-800-262-8200 Worldwid 5 LP] or 29 CFR 1910.120 29 CFR 1910.1200 [OSH fication 319, H332, H360	de 1-703-741-5500 00 [OSHA]. HA]. Concentration < 25%	

### In Case of Skin Contact

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

### In Case of Eye Contact

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

#### If Swallowed

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

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

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

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

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

#### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing Media

### Suitable extinguishing media

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

## 5.2 Special hazards arising from the substance or mixture

In combustion, may emit toxic fumes.

### 5.3 Precautions for fire-fighters

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

### 6. ACCIDENTAL RELEASE MEASURES

# 6.1 Personal precautions, protective equipment and emergency procedures

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

# vapors, mist, dust or gas

6.2 Environmental precautions

Do not let product enter drains.

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

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

#### 6.4 Reference to other sections

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

#### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

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

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

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

## 7.3 Specific end uses

Not applicable.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

### Components with workplace and 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/m <sup>3</sup>	20 ppm 61 mg/m <sup>3</sup>
		European Union (IOELV)	5 ppm 15 mg/m <sup>3</sup>	10 ppm 30 mg/m <sup>3</sup>
		United Kingdom (UK)	5 ppm 15 mg/m³	10 ppm 30 mg/m <sup>3</sup>
		Ireland	5 ppm 15 mg/m³	10 ppm 30 mg/m <sup>3</sup>

# Human Health Values

Relevant DNELs and other threshold Levels					
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 – systemic effects
		1,1 mg/kg bw/day	Human, dermal	Worker (industry	Chronic – systemic effects
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

54827-17-7

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

#### **Personal Protective Equipment** 8.3

## 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**

If risk assessment indicates necessary, use a suitable respirator.

### Environmental exposure controls

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

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

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

#### 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

 ${\sf N}, {\sf N}\text{-}{\sf Dimethylformamide}$  – 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 – No 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 – No known symptoms. Tetramethylbenzidine – No data available.

## Additional Information

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

12.	ECOLOGICAL INFORMATION
12.1	Toxicity
	No data available.
12.2	Persistence and degradability
	No data available.
12.3	Bio accumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

## Product

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.

#### 14.7 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): 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	X	Х	X	X	х	X	х	x

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 (1907/2006) – Annex XVII – Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 – Candidate List of Substances of Very High Concern (SVHC)
N,N-Dimethylformamide		Use 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	

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

# 16. OTHER INFORMATION

# Further Information

# Copyright © 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.



1.	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING						
1.1	Product Identifiers						
	Product Name:	Color Reagent B					
	Catalog Number:	895001					
1.2	Relevant identified uses	of the substance or mixture and uses advised again	nst				
	Identified Uses:	For research use only.					
1.3	Details of the supplier of	the safety data sheet					
	Company:	R&D Systems, Inc. a Bio-Techne Brand	Telephone:	1-800-343-7475			
		614 McKinley Place NE	Fax:	1-612-656-4400			
		Minneapolis, MN 55413, USA	Internet:	www.rndsystems.com			
			Email address:	info@bio-techne.com			
	Canada:	21 Canmotor Ave	Telephone:	1-855-668-8722			
		Toronto, ON M8Z 4E6	Fax:	902-827-6402			
			Email address:	Canada.inquiries@bio-techne.com			
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449			
		Abingdon Science Park	Fax:	44 (0)1235 533420			
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com			
	China:	1193 Changning Road	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

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].

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

Pictogram(s):

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



Signal Word:	Danger
Hazard Statement(s):	
H312 H315 H319 H332 H360	Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May damage fertility or the unborn child.

Precautionary Statement(s):

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fumes/gas/mist/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 so. 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.

### 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	Concentration
N,N-Dimethylformamide	68-12-2	200-679-5		H312, H315, H319, H332, H360	< 25%
Tetramethylbenzidine	54827-17-7	259-364-6	616-001-00-x	Not hazardous at this concentration.	< 0.05%

# 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

#### General Advice

Consult a doctor and show this safety data sheet.

#### If Inhaled

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

#### In Case of Skin Contact

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

#### In Case of Eye Contact

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

#### If Swallowed

a doctor

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

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

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

# 4.3 Indication of immediate medical attention and special treatment needed

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

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing Media

#### Suitable extinguishing media

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

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

In combustion, may emit toxic fumes.

# 5.3 Precautions for fire-fighters

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

## 6. ACCIDENTAL RELEASE MEASURES

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

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

# 6.2 Environmental precautions

Do not let product enter drains.

# 6.3 Methods and materials for containment and cleaning up

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

# 6.4 Reference to other sections

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

# 7. HANDLING AND STORAGE

# 7.1 Precautions for safe handling

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

# 7.2 Conditions for safe storage, including any incompatibilities

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

#### 7.3 Specific end uses

Not applicable.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 **Control parameters**

## Components with workplace and 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/m <sup>3</sup>	20 ppm 61 mg/m <sup>3</sup>
		European Union (IOELV)	5 ppm 15 mg/m³	10 ppm 30 mg/m <sup>3</sup>
		United Kingdom (UK)	5 ppm 15 mg/m³	10 ppm 30 mg/m <sup>3</sup>
		Ireland	5 ppm 15 mg/m³	10 ppm 30 mg/m <sup>3</sup>

### Human Health Values

Relevant DNELs and other threshold Levels					
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 – systemic 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)

54827-17-7 Tetramethylbenzidine

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

8.3

# 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**

If risk assessment indicates necessary, use a suitable respirator.

#### Environmental exposure controls

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

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Liquid	Vapor Pressure	No data available.
Odor	No data available.	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
рН	No data available.	Solubility	No data available.
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Auto ignition Temperature	No data available.

No data available. No data available.

#### 9.2 Other safety information

No data available.

# 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

Stable under recommended transport or storage conditions.

#### 10.2 Chemical stability

Stable under recommended storage conditions.

## 10.3 Possibility of hazardous reactions

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

# 10.4 Conditions to avoid

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 – No 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.

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	Bio accumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	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.
14.7	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): 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

	Australia (AIIC)	China (IECSC)	EU (ESCI)	EU REACH	Japan (CSCL- ENCS)	Korea (KECI)	New Zealand (NXIoC)	Philippines (PICCS)
N,N- Dimethylformamide	X	х	х	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 (1907/2006) – Annex XVII – Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 – Candidate List of Substances of Very High Concern (SVHC)
N,N-Dimethylformamide		Use 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

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.



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

# 1.1 Product Identifiers

Product Name: Stop Solution 2N Sulfuric Acid Catalog Number: 895032 Relevant identified uses of the substance or mixture and uses

# 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 Ave	Telephone:	1-855-668-8722
	Toronto, ON M8Z 4E6	Fax:	902-827-6402
		Email address:	Canada.inquiries@bio-techne.com
United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449
	Abingdon Science Park	Fax:	44 (0)1235 533420
	Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com
China:	1193 Changning Road	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

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

Pictogram(s):

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

Causes severe skin burns and eye damage irritation.

Causes serious eye damage.



Danger

Signal Word:
Hazard Statement(s):
H314 H318
Precautionary Statement(s):

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 ON 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

4.1

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

#### 4. FIRST AID MEASURES

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

#### 5.1 Extinguishing Media

#### Suitable extinguishing media

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

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

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

#### 5.3 Precautions for fire-fighters

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

## 6. ACCIDENTAL RELEASE MEASURES

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

Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

# 6.2 Environmental precautions

Keep away from drains.

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

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

# 6.4 Reference to other sections

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

#### 7. HANDLING AND STORAGE

## 7.1 Precautions for safe handling

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

# 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

# 7.3 Specific end uses

Not applicable.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# 8.1 Control parameters

# Components with workplace and control parameters

Contains no substances with occupational exposure limit values.

# 8.2 Exposure controls

#### **Appropriate Engineering Controls**

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

#### Personal Protective Equipment

#### Eye / Face Protection

Wear approved safety goggles.

#### **Skin Protection**

8.3

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).

#### **Environmental exposure controls**

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

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

Appearance	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	Soluble
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Auto ignition Temperature	No data available.
Flash Point	No data available.	Decomposition Temperature	No data available.
Evaporation Rate	No data available.	Viscosity	No data available.
Flammability (Solid, Gas)	No data available.	Explosive Properties	No data available.
Upper / Lower Flammability or Explosive Limits	No data available.	Oxidizing Properties	No data available.

#### 9.2 Other safety information

No data available

# 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

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

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

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

## 10.4 Conditions to avoid

Bases, Halides, Metals, Alkalis, Acetonitrile.

# 10.5 Incompatible materials

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

#### 10.6 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 case 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	Bio accumulative potential
	No data available.
12.4	Mobility in soil
	No data available.
12.5	Results of PBT and vPvB assessment
	No data available.
12.6	Other adverse effects
	No data available.
13.	DISPOSAL CONSIDERATIONS
13.1	Waste treatment methods
	Product
	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
14.1	Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA. 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

# 14.5 Environmental hazards

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

# 14.6 Special precautions for users

No data available.

# 14.7 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): On TSCA Inventory

SARA 313: Not applicable.

SARA 311/312: Acute health hazard

CERCLA Reportable Quantity: 1000 lbs.

California Proposition 65: Not applicable.

## 15.2 Chemical safety assessment

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

#### 16. OTHER INFORMATION

# Further Information

Copyright © 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.