

1.	IDENTIFICATION OF TH	IE SUBSTANCE/MIXTURE AND OF THE COMPAN	Y/UNDERTAKING	
1.1	Product Identifiers	ers		
	Product Name:	Recombinant Human PDGF-AB (single chain) Protein	, CF	
	Catalog Number:	11471-AB		
	Components:	Acetonitrile TFA – Liquid		
		Acetonitrile TFA – Lyophilized		
1.2	Relevant identified uses	of the substance or mixture and uses advised agains	t	
	Identified Uses:			
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

See additional safety data sheets.

RDSYSTEMS a biotechne brand

1.	IDENTIFICATION O	F THE SUBSTANCE/MIXTURE AND OF THE CO	MPANY/UNDERTAKING				
1.1	Product Identifiers						
	Product Name:	Acetonitrile TFA – Liquid					
1.2	Relevant identified u	ses of the substance or mixture and uses advised	against				
	Identified Uses:	Identified Uses: For research use only.					
1.3	Details of the supplie	er 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

Classification of the substance or mixture 2.1

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

Flammable liquids - Category 2 Acute Toxicity, oral – Category 4 Acute Toxicity, dermal – Category 4 Eye Irritation – Category 2A Acute Toxicity, inhalation – Category 4

Label Elements 2.2

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



Harmful if swallowed.

Harmful in contact with skin.

Causes serious eve irritation. Harmful if inhaled.

Highly flammable liquid and vapor.

Hazard Statement(s):

H225 H302 H312 H319 H332

Signal Word:

Precautionary Statement(s):

Precautionary Statement(s):	
P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges
P261	Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only in well-ventilated areas.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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
P312	rinsing.
P321	Call poison center/doctor if you feel unwell.
P330	Specific treatment (see Section 4).
P337+P313	Rinse mouth.
P362+P364	If eye irritation persists: Get medical advice/attention.
P370+P378	Take off contaminated clothing and wash it before reuse.
	In Case of Fire: Use dry chemical. CO2, or alcohol resistant foam.

2.3 Other Hazards

This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII.

The substance/mixture does not contain substance(s) equal to or greater than 0.1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

С	Component	CAS No.	EC No.	Index No.	Classification	Concentration
A	cetonitrile Solution	75-05-8	200-835-2		H225, H302, H312, H319, H332	30 – 40 %
Т	rifluoroacetic Acid	76-05-1	200-929-3			= 0.1 %
V	Vater	7732-18-5	231-791-2			60 – 70 %

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

Consult a doctor and show this safety data sheet.

If Inhaled

Acetonitrile Solution - Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

Trifluoroacetic Acid - 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

Acetonitrile Solution - Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Trifluoroacetic Acid - 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

Acetonitrile Solution - Flush with copious amounts of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If eye irritation persists, consult a doctor.

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

If Swallowed

Acetonitrile Solution - Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Trifluoroacetic Acid - 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

Acetonitrile Solution – Dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Trifluoroacetic Acid – Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Acetonitrile Solution – Use water spray to cool unopened containers.

5.2 Special hazards arising from the substance or mixture

Acetonitrile Solution – Emits toxic fumes under fire conditions. Carbon dioxides. Trifluoroacetic Acid – In combustion, may emit toxic fumes.

5.3 Precautions for fire-fighters

Acetonitrile Solution – Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Trifluoroacetic Acid – 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

Acetonitrile Solution – Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate all personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Trifluoroacetic Acid – 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

Acetonitrile Solution – Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Trifluoroacetic Acid – Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Acetonitrile Solution - Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

Trifluoroacetic Acid - 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

Acetonitrile Solution – Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Trifluoroacetic Acid – 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

Acetonitrile Solution - Store in cool, well-ventilated area. Keep cool. Keep container tightly sealed until ready to use.

Trifluoroacetic Acid - 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.

8.1

9.2

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace and control parameters

Acetonitrile Solution – STEL: 102 mg/m³ 15 minutes. TWA: 68 mg/m³ 8 hours. Trifluoroacetic Acid – 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

No data available.

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

Liquid	Vapor Pressure	No data available.
Colorless liquid	Vapor Density	No data available.
Little to none	Relative Density	No data available.
No data available.	Solubility	Soluble
2.0 ± 0.3	Partition Coefficient	No data available.
No data available.	Auto ignition Temperature	No data available.
No data available.	Decomposition Temperature	No data available.
No data available.	Viscosity	No data available.
No data available.	Explosive Properties	No data available.
No data available.	Oxidizing Properties	No data available.
No data available.		
	Colorless liquid Little to none No data available. 2.0 ± 0.3 No data available. No data available. No data available. No data available. No data available. No data available.	Colorless liquidVapor DensityLittle to noneRelative DensityNo data available.Solubility2.0 ± 0.3Partition CoefficientNo data available.Auto ignition TemperatureNo data available.Decomposition TemperatureNo data available.ViscosityNo data available.Explosive PropertiesNo data available.Oxidizing Properties

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

Acetonitrile Solution - Avoid all sources of ignition (heat, spark, flame and direct sunlight).

Trifluoroacetic acid – Heat, moisture.

10.5 Incompatible materials

Acetonitrile Solution – Strong acids/alkalis, strong oxidizing/reducing agents. May attach plastic, rubbers and coatings. Trifluoroacetic Acid – Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Acetonitrile Solution – In combustion may emit toxic fumes such as hydrogen cyanide (hydrocyanide acid), carbon dioxide, carbon monoxide or oxides of nitrogen. Trifluoroacetic Acid – Strong acids/alkalis, strong oxidizing/reducing agents.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Skin Corrosion/Irritation

Acute Toxicity

Acetonitrile Solution – LD50 rat oral – Dose: 2460 mg/kg; Dermal LD50 rabbit – Dose: >2000 mg/kg, Inhalation: LD50 rat – Dose: 12.68 mg/L with 8 hours of exposure Trifluoroacetic Acid – Classified based on available data.

Acetonitrile Solution – Mild irritant rabbit. Trifluoroacetic Acid – Classified based on available data.

Serious Eye Damage / Irritation

Acetonitrile Solution – Moderate irritant rabbit Trifluoroacetic Acid – 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:	Acetonitrile Solution – Adverse symptoms may include the following: irritation, redness. Trifluoroacetic Acid – There may be mild irritation at the site of contact.
Eyes:	Acetonitrile Solution – Adverse symptoms may include the following: pain or irritation, watering, redness. Trifluoroacetic Acid – There may be irritation and redness.
Delayed/Immediate Effects:	No known symptoms.

Additional Information

Classified based on available data

11.2 Information On Other Hazards

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to humans as it does not meet the criteria set out in section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Acetonitrile Solution – Acute LC50 3600000 ug/L Fresh water Daphnia – Daphnia magna - <24 hours. Acute LC50 >1500 mg/L Fresh water Fish – Pimephales promelas – (Juvenile) – 0.2 to 0.5 g at 96 hours. Trifluoroacetic Acid – No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

Acetonitrile Solution - Potential low Trifluoroacetic Acid - No data available.

Mobility in soil 12.4

No data available.

Results of PBT and vPvB assessment 12.5

Does not contain any PBT/vPvB substances >= 0.1% assessed in accordance with REACH Annex XIII.

12.6 Endocrine disrupting properties

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

Other adverse effects 12.7

No data available

DISPOSAL CONSIDERATIONS 13.

13.1 Waste treatment methods

Product

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

Trifluoroacetic Acid - 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**

14.3

Acetonitrile Solution - UN1993

Trifluoroacetic Acid - Does not meet the criteria for classification as hazardous for transport.

14.2

Trifluoroacetic Acid - Does not meet the criteria for classification as hazardous for transport.

Transport hazard class(es)

Acetonitrile Solution - 3

Trifluoroacetic Acid - Does not meet the criteria for classification as hazardous for transport.

14.4 Packaging group

Acetonitrile Solution - II Trifluoroacetic Acid - Does not meet the criteria for classification as hazardous for transport.

Environmental hazards 14.5

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

Special precautions for users 14.6

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]

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

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.

UN proper shipping name Acetonitrile Solution - Flammable liquids, n.o.s

RD SYSTEMS a biotechne brand

1. 1.1

1.2

1.3

IDENTIFICATION OF TH Product Identifiers	HE SUBSTANCE/MIXTURE AND OF THE COMPA	ANY/UNDERTAKING	
Product Name:	Acetonitrile TFA – Lyophilized		
Relevant identified us	ses of the substance or mixture and uses advised	against	
Identified Uses:	For research use only.		
Details of the supplie	er 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

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

This substance does not meet the classification criteria according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].

2.2 Label Elements

This product does not need to be labeled in accordance with Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA].

2.3 Other Hazards

This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII.

Shanghai, China

The substance/mixture does not contain substance(s) equal to or greater than 0.1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Email address:

techsupport.cn@bio-techne.com

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

This product does not contain hazardous chemicals at concentrations of 1% or greater. This product is not known to contain carcinogens at concentrations of 0.1% or greater.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

Consult a doctor and show this safety data sheet.

If Inhaled

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

In Case of Skin Contact

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

In Case of Eye Contact

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

If Swallowed

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

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of immediate medical attention and special treatment needed

	Show this safety data sheet to the d	loctor in attendance. Immediate medical attention is re	quired.		
5.	FIRE-FIGHTING MEASURES				
5.1	Extinguishing Media				
	Suitable extinguishing media				
	Use water spray, alcohol-resistant f	foam, dry chemical or carbon dioxide.			
5.2	Special hazards arising from the	substance or mixture			
	In combustion, may emit toxic fume	PS.			
5.3	Precautions for fire-fighters				
	Wear suitable protective clothing to	prevent contact with skin and eyes and self-contained	I breathing apparatus.		
6.	ACCIDENTAL RELEASE MEAS	URES			
6.1	Personal precautions, protective	equipment and emergency procedures			
	Do not take action without suitable or gas.	protective clothing - see section 8 of SDS. Evacuate p	personnel to safe areas. Ensure ade	equate ventilation. Avoid breathing vapors, mist, dust	
6.2	Environmental precautions				
	Do not let product enter drains.				
6.3	Methods and materials for contain	inment and cleaning up			
	Cover spillage with suitable absorb	ent material. Hold all material for appropriate disposa	as described under section 13 of S	DS.	
6.4	Reference to other sections				
	For required PPE see section 8. Fo	r disposal see section 13.			
7.	HANDLING AND STORAGE				
7.1	Precautions for safe handling				
	Avoid inhalation, contact with eyes, or repeated exposure.	, skin and clothing. Avoid the formation of dust and ae	rosols. Use in a well-ventilated area	a. Keep away from sources of ignition. Avoid prolonged	
7.2	Conditions for safe storage, inclu	uding any incompatibilities			
	Store in cool, well-ventilated area.	Keep away from direct sunlight. Keep container tightly	sealed until ready for use.		
7.3	Specific end uses				
	Not applicable.				
8.	EXPOSURE CONTROLS/PERS	EXPOSURE CONTROLS/PERSONAL PROTECTION			
8.1	Control parameters				
	Components with workplace and	control parameters			
	Contains no substances with occup	pational exposure limit values.			
8.2	Exposure controls				
	Appropriate Engineering Control	S			
	Use in a fume hood where applicat eye wash station.	ble. Ensure all engineering measures described unde	r section 7 of SDS are in place. En	sure laboratory is equipped with a safety shower and	
8.3	Personal Protective Equipment				
	Eye / Face Protection				
	Use appropriate safety glasses.				
	Skin Protection				
	Use appropriate chemical resistant handling.	gloves (minimum requirement use standard BS EN S	374:2003). Gloves should be inspec	cted before use. Wash and dry hands thoroughly after	
	Body Protection				
	Wear appropriate protective clothing	g.			
	Respiratory Protection				
	If risk assessment indicates necess	ary, use a suitable respirator.			
9.	PHYSICAL AND CHEMICAL PR	OPERTIES			
9.1	Information on basic physical an	d chemical properties			
	Physical State	Solid or liquid	Vapor Pressure	No data available.	
	Appearance	Lyophilized white powder or clear liquid	Vapor Density	No data available.	
	Odor	Little to none.	Relative Density	No data available.	

	Odor Threshold	No data available.	Solubility	No data available.
	pH	No data available.	Partition Coefficient	No data available.
	Melting / Freezing Point	No data available.	Auto ignition Temperature	Product is not self-igniting.
	Boiling Point / Range	No data available.	Decomposition Temperature	No data available.
	Flash Point	No data available.	Viscosity	No data available.
	Evaporation Rate	No data available.	Explosive Properties	No data available.
	Flammability (Solid, Gas)	No data available.	Oxidizing Properties	No data available.
	Upper / Lower Flammability or Explosive Limits	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 of	conditions.		
10.3	Possibility of hazardous reactions			
	-	nder normal transport or storage conditions.	Decomposition may occur on exposure to conditior	s or materials listed below.
10.4	Conditions to avoid			
	Heat, moisture.			
10.5	Incompatible materials			
	Strong acids/alkalis, strong oxidizing/	reducing agents		
10.6				
10.0	Hazardous decomposition product			
	Strong acids/alkalis, strong oxidizing/	reducing agents.		
11.	TOXICOLOGICAL INFORMATION	N		
11.1	Information on toxicological effect	s		
	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 – Si	ngle Exposure		
	Classified based on available data.			
	Specific Target Organ Toxicity – Re	epeated Exposure		
	May cause eye burns.			
	Aspiration Hazard			
	•			
	Classified based on available data. Symptoms / Routes of Exposure			
	Symptoms / Routes of Exposure	The second state in the factor of the state	for the set of the base of the base of the set	
	Inhalation:	There may be irritation of the throat with a	feeling of tightness in the chest.	
	Ingestion:	There may be irritation of the throat.	entect	
	Skin:	There may be mild irritation at the site of c	ontact.	
	Eyes: Delayed/Immediate Effects:	May cause eye burns.		
	Delayed/Immediate Effects: Additional Information	No known symptoms.		
	Classified based on available data			
11.2	Information On Other Hazards			
				ties with respect to humans as it does not meet the
12	criteria set out in section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.			

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				
	Does not contain any PBT/vPvB substances >= 0.1% assessed in accordance with REACH Annex XIII.				
12.6	Endocrine disrupting properties				
	Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.				
12.7	Other adverse effects				
	No data available.				
13.	DISPOSAL CONSIDERATIONS				
13.1	Waste treatment methods				
	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.				
14.6	Additional Transport Information				
	Does not meet the criteria for classification as hazardous for transport.				
15.	REGULATORY INFORMATION				
10.	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				
10.					
	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.