

1.1			E COMPANY/UNDERTAKIN	•						
	Product Identifiers									
	Product Name: Catalog Number:	T-bet/TBX21 Antibody (39D) NBP1-43299								
1.2	-	es of the substance or mixture and uses ad	viced against							
			viseu against							
	Identified Uses: For Research Use Only									
1.3		of the safety data sheet								
	Company:	Novus Biologicals a Bio-Techne Brand	Telephone:	1-888-506-6887						
		10730 E. Briarwood Avenue, Building IV Centennial, CO 80112, USA		1-303-730-1966						
			Internet: Email address:	www.novusbio.com novus@novusbio.com						
			Email addroso.	novacientovacelo.com						
	Canada:	461 North Service Rd West	Telephone:	1-855-668-8722						
		Unit B37	Fax:	902-827-6402						
		Oakville, ON L6M 2V5	Email address:	Canada.inquiries@bio-techne.com						
	United Kingdom:	19 Barton Lane	Telephone:	44 (0)1235 529449						
		Abingdon Science Park	Fax:	44 (0)1235 533420						
		Abingdon, OX14 3NB	Email address:	info.emea@bio-techne.com						
	China:	1193 Changning Road	Telephone:	86-400-821-3475						
		Unit 1901, Raffles Changning Office	Fax:	76 (021)52371001						
		Shanghai , China	Email address:	techsupport.cn@bio-techne.com						
1.4	Emergency Telephone	Number								
	Emergency Tel:	US: 303-730-1950 or 888-506-6887 / E	 US: 303-730-1950 or 888-506-6887 / Europe: +44(0)1235-529449 / China 86-400-821-3475							
2.	HAZARDS IDENTIFICATION									
2.1	Classification of the s									
2.1		ubstance or mixture	ectives 67/548/EEC, 1999/45/	EC, 1272/2008 [CLP], GHS or 29 CFR 1910.1200 [OSHA	].					
		ubstance or mixture	ectives 67/548/EEC, 1999/45/	EC, 1272/2008 [CLP], GHS or 29 CFR 1910.1200 [OSHA	].					
	This substance does no Label Elements	ubstance or mixture			].					
2.2	This substance does no Label Elements	ubstance or mixture ot meet the classification criteria of the EC Di			].					
2.2 2.3	This substance does no Label Elements The product does not n Other Hazards - None	ubstance or mixture ot meet the classification criteria of the EC Di			].					
2.2 2.3 3.	This substance does no Label Elements The product does not n Other Hazards - None COMPOSITION/INFO	ubstance or mixture ot meet the classification criteria of the EC Di need to be labelled in accordance with EC dir			].					
2.2 2.3 3.	This substance does not Label Elements The product does not n Other Hazards - None COMPOSITION/INFO Substances	ubstance or mixture ot meet the classification criteria of the EC Di need to be labelled in accordance with EC dir			].					
2.2 2.3 3. 3.1	This substance does not Label Elements The product does not no Other Hazards - None COMPOSITION/INFO Substances Not applicable.	ubstance or mixture ot meet the classification criteria of the EC Di need to be labelled in accordance with EC dir			].					
2.2 2.3 3. 3.1	This substance does not Label Elements The product does not no Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures	ubstance or mixture ot meet the classification criteria of the EC Di need to be labelled in accordance with EC dir RMATION ON INGREDIENTS	ectives or respective national I	aws.	_					
2.1 2.2 2.3 3. 3.1 3.2	This substance does not Label Elements The product does not no Other Hazards - None COMPOSITION/INFO Substances Not applicable.	ubstance or mixture ot meet the classification criteria of the EC Di need to be labelled in accordance with EC dir	ectives or respective national I	aws. Classification	]. 					
2.2 2.3 3. 3.1 3.2	This substance does not Label Elements The product does not no Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide < 0.1%	ubstance or mixture         ot meet the classification criteria of the EC Di         ueed to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85	ectives or respective national I	aws. Classification	Conc.					
2.2 2.3 3. 3.1	This substance does no Label Elements The product does not in Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component	ubstance or mixture         ot meet the classification criteria of the EC Di         ueed to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85	ectives or respective national I	aws. Classification	Conc.					
<ul> <li>2.2</li> <li>2.3</li> <li>3.</li> <li>3.1</li> <li>3.2</li> <li>4.</li> </ul>	This substance does not Label Elements The product does not no Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide < 0.1%	ubstance or mixture         ot meet the classification criteria of the EC Di         need to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85         ES	ectives or respective national I	aws. Classification	Conc.					
2.2 2.3 3. 3.1 3.2	This substance does not Label Elements The product does not in Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide < 0.1%	ubstance or mixture         ot meet the classification criteria of the EC Di         need to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85         ES	ectives or respective national I	aws. Classification	Conc.					
2.2 2.3 3. 3.1 3.2	This substance does not Label Elements The product does not in Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURI Description of first aid General Advice	ubstance or mixture         ot meet the classification criteria of the EC Di         need to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85         ES	ectives or respective national I	aws. Classification	Conc.					
2.2 2.3 3. 3.1 3.2 4.	This substance does not Label Elements The product does not in Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURI Description of first aid General Advice	ubstance or mixture         ot meet the classification criteria of the EC Di         need to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85         ES         I measures	ectives or respective national I	aws. Classification	Conc.					
<ul> <li>2.2</li> <li>2.3</li> <li>3.</li> <li>3.1</li> <li>3.2</li> <li>4.</li> </ul>	This substance does not Label Elements The product does not in Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURI Description of first aid General Advice Consult a doctor and si If Inhaled	ubstance or mixture         ot meet the classification criteria of the EC Di         ueed to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85         ES         I measures         how this safety data sheet.	Index No. 2-1 011-004-0	aws. Classification	Conc.					
2.2 2.3 3. 3.1 3.2 4.	This substance does not Label Elements The product does not in Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURI Description of first aid General Advice Consult a doctor and st If Inhaled Remove to fresh air and In Case of Skin Contact	ubstance or mixture         ot meet the classification criteria of the EC Di         need to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85         ES       Imeasures         how this safety data sheet.       d         d monitor breathing. If breathing becomes difet	Index No. 2-1 011-004-0	aws. Classification 0-7 Not hazardous at this concentration. stops, give artificial respiration. Consult a doctor.	<b>Conc.</b> < 0.1 %					
2.2 2.3 3. 3.1 3.2	This substance does not Label Elements The product does not in Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURI Description of first aid General Advice Consult a doctor and sl If Inhaled Remove to fresh air and In Case of Skin Contace Immediately wash skin	ubstance or mixture         ot meet the classification criteria of the EC Di         ieed to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85         ES       Imeasures         how this safety data sheet.       Imeasures dif         tt       with copious amounts of soap and water for	Index No. 2-1 011-004-0	aws. Classification 0-7 Not hazardous at this concentration.	<b>Conc.</b> < 0.1 %					
2.2 2.3 3. 3.1 3.2	This substance does not Label Elements The product does not in Other Hazards - None COMPOSITION/INFO Substances Not applicable. Mixtures Component Sodium Azide < 0.1% FIRST AID MEASURI Description of first aid General Advice Consult a doctor and si If Inhaled Remove to fresh air and In Case of Skin Contact	ubstance or mixture         ot meet the classification criteria of the EC Di         ieed to be labelled in accordance with EC dir         RMATION ON INGREDIENTS         CAS No.       EC No.         26628-22-8       247-85         ES       Imeasures         how this safety data sheet.       Imeasures dif         tt       with copious amounts of soap and water for	Index No. 2-1 011-004-0 icult, give oxygen. If breathing at least 15 minutes. Remove	aws. Classification 0-7 Not hazardous at this concentration. stops, give artificial respiration. Consult a doctor.	<b>Conc.</b>					

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

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

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

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

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

# 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing Media

Suitable extinguishing media

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

# 5.2 Special hazards arising from the substance or mixture

In combustion, may emit toxic fumes.

### 5.3 Precautions for fire-fighters

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

### 6. ACCIDENTIAL RELEASE MEASURES

# 6.1 Personal precautions, protective equipment and emergency procedures

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

### 6.2 Environmental precautions

Do not let product enter drains.

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

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

### 6.4 Reference to other sections

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

### 7. HANDLING AND STORAGE

## 7.1 Precautions for safe handling

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

# 7.2 Conditions for safe storage, including any incompatibilities

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

### 7.3 Specific end uses

Not applicable.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

# Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

Appropriate Engineering Controls

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

### Personal Protective Equipment

### Eye / Face Protection

Use appropriate safety glasses.

# **Skin Protection**

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

# **Body Protection**

Wear appropriate protective clothing.

### **Respiratory Protection**

If risk assessment indicates necessary, use a suitable respirator.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

# 9.1 Information on basic physical and chemical properties

Appearance	Lyophilized white powder or clear liquid	Vapor Pressure	No data available.
Odor	Little to none	Vapor Density	No data available.
Odor Threshold	No data available.	Relative Density	No data available.
pH	No data available.	Solubility(ies)	No data available.
Melting / Freezing Point	No data available.	Partition Coefficient	No data available.
Boiling Point / Range	No data available.	Autoignition Temperature	No data available.

	Flash Point Evaporation Rate		No data available. No data available.	Decomposition Temperature Viscosity	No data available. No data available.				
	Flammability (Solid, Gas)		No data available.	Explosive Properties	No data available.				
	Upper / Lower Flammabilit Limits	y or Explosive	No data available.	Oxidizing Properties	No data available.				
9.2	Other safety information								
	No data available.								
10.	STABILITY AND REACTI	VITY							
10.1	Reactivity								
	Stable under recommended transport or storage conditions.								
10.2	Chemical stability								
	Stable under recommended storage conditions. Possibility of hazardous reactions								
10.3									
	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	oxidising/reduc	ng agents.						
10.6	Hazardous decomposition	products							
	Strong acids/alkalis, strong	oxidising/reduc	ng agents.						
11.	TOXICOLOGICAL INFOR	MATION							
11.1	Information on toxicologic	al effects							
	Acute Toxicity								
	Classified based on availab	ole data							
	Skin Corrosion / Irritation								
	Classified based on availab	ole data							
	Serious Eye Damage / Irrita	ation							
	Classified based on availab	ole data							
	Respiratory or Skin Sensit	ization							
	Classified based on availab	ole 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								
			itation of the throat with a feelin	ng of tightness in the chest.					
	Ingestion:	There may be in	itation of the throat.						
	Skin:	There may be m	ild irritation at the site of contac	t.					
	Eyes:	There may be ir	itation and redness.						
	Delayed / Immediate Effects:	No known symp	toms.						
	Additional Information								
	Classified based on available data								

# 12. ECOLOGICAL INFORMATION

# 12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

# 12.3 Bioaccumulative potential

No data available.

# 12.4 Mobility in soil

No data available.

# 12.5 Results of PBT and vPvB assessment

No data available

### 12.6 Other adverse effects

No data available

# 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

### Product

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

### **Contaminated Packaging**

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

# 14. TRANSPORT INFORMATION

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

# 14.1 UN-Number

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

# 14.2 UN proper shipping name

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

### 14.3 Transport hazard class(es)

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

# 14.4 Packaging group

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

### 14.5 Environmental hazards

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

### 14.6 Special precautions for users

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

# Additional Transport Information

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

### 15. REGULATORY INFORMATION

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

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

TSCA (Toxic Substances Control Act): Listed SARA 313: Listed SARA 311/312: Listed 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 © 2019 Novus Biologicals 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