GUZYhm'8UhU'G\YYh' ZZZ QRYXVELR FR = 89BH=: = 75H=CB · C: H<9 · GI 6GH5B79#A=LHIF9 · 5B8 · C: H<9 · 7CAD5BM#IB89FH5?=B; DfcXiWh'BUaY.'8C7?('FYWcaV]bUbh'DfchY]b'5bh][Yb' 7 U h U ` c [' B i a V Y f . ' B 6 D &!) +))) D 9 D ' %" & FY`YjUbh | XYbh | Z | YX i gYg c Z h \ Y gi Vgh Ub WY c f `a | l hi f Y Ub X i gYg UXj | gYX U [U | b gh Identified Uses: For research use only. $\label{eq:continuous} \mbox{\ensuremath{\$''}} \mbox{\ensuremath{$''$}} \mbox{\ensuremath{\''$}} \mbox{\ensuremath{$''$}} \mbox{\ensuremath{$''$}} \mbox{\ensuremath{\''$}} \mbox{\ensuremath{\''$}} \mbox{\ensuremath{\''$$ Novus Biologicals a Bio-Techne Brand Telephone: 1-888-506-Company: 10771 E Easter Ave 1-303-730-1966 Fax: Centennial, CO 80112 USA Internet: www.novusbio.com Email address: novus@novusbio.com Canada: 461 North Service Rd West 1-855-668-8722 Telephone: Fax: 902-827-6402 Oakville, ON L6M 2V5 Email address: Canada.inquiries@bio-techne.com 19 Barton Lane 44 (0)1235 529449 United Kingdom: Telephone: Abingdon Science Park 44 (0)1235 533420 Abingdon, OX14 3NB Email address: info.emea@bio-techne.com %" (' 9 a Y f [Y b Wm ' H Y ` Y d \ c b Y ' B i a V Y f ' US: 303-730-1950 or 888-506-6887 / Europe: +44(0)1235-529449 Emergency Tel: < 5 N 5 F 8 G = 8 9 B H = : = 7 5 H = C B&" . &"%: $7 ` Ugg] Z] WUh] cb ` cZ ` h \setminus Y ` gi VghUbWY ` cf ` a] lhifY `$ Classification according to the Regulation (EC) No 1272/2008 Not Classified &" &' @UVY` '9`YaYbhg Labelling according to Regulation (EC) No 1272/2008 Not Regulated &" ' Ch\Yf < UnUf Xg This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. 7 C A D C G = H = C B # = B : C F A 5 H = C B · C B · = B ; F 9 8 = 9 B H G · ' " % ' Gi V g h U b WY g Not applicable. " & A] l h i f Y g 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. (" : = F G H : 5 = 8 : A 9 5 G I F 9 G :(" % · 8 Y g W f] d h] c b · c Z · Z] f g h · U] X · a Y U g i f Y g ·

; YbYf U` 5 Xj | WY

Consult a doctor and show this safety data sheet.

 $= Z \cdot = b \setminus U \cdot YX$

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

= b \cdot 7 U g Y \cdot c Z \cdot G $_{-}$] b \cdot 7 c b h U Wh

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.

= b · 7 U g Y · c Z · 9 mY · 7 c b h U Wh

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

 $= Z \cdot G k U \cdot c k Y X \cdot$

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.

(" & ` Acgh `] adcf h U b h ` g mad h cag ` U b X ` Y Z Z Y Wh g ž ` V c h \ ` U Wi h Y ` U b X ` X Y ` U m Y X `

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

("' ' = b X] WUh] c b ' c Z '] a a Y X] Uh Y ' a Y X] WU` ' Uh h Y b h] c b ' Ub X ' g d Y W] U` ' h f Y Uh a Y b h ' b Y Y X Y X '

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

```
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
) " & ` GdYW] U` ` \ Un Uf Xg ` Uf ] g ] b [ ` Zf c a ` h \ Y ` g i Vg h Ub WY ` c f ` a ] l h i f Y `
         Carbon oxides, Nitrogen oxides (NOx)
          \, D\, f \, \, Y\, WU\, i \, \, h \, ] \, \, c \, b \, g \, \dot{} \, \, Z\, c \, f \, \dot{} \, \, Z \, ] \, \, f \, \, Y\, ! \, \, Z \, ] \, \, [ \, \, \backslash \, \, h \, Y\, f \, \, g \, \dot{} \, ] \, \\
         Wear self-contained breathing apparatus for firefighting if necessary
         577 = 89BH = 5@ F9@95G9 A95GIF9G
*"%` DYfgcbU` dfYWUih]cbgž dfchYWh]jY Yei]daYbh UbX YaYf[YbWm dfcWYXifYgʻ
         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
* " & ' 9 b j | f c b a Y b h U ` ' d f Y WU i h | c b g
         Do not let product enter drains.
* " ' ` AYh \ c Xg ` Ub X ` a Uh Yf ] U ` g ` Z c f ` Wc b h U] b a Y b h ` Ub X ` W` Y Ub ] b [ ` i d `
         Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.
* " ( ` FYZYfYbWY`hc`ch\Yf gYWh]cbg
         For required PPE see section 8. For disposal see section 13
         < 5 B 8 @ = B; 5 B 8 G H C F 5; 9
+ " % · Df YWUi h ] c b g · Z c f · g UZ Y · \ U b X ` ] b [ ·
         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 c b X ] h ] c b g ' Z c f ' g U Z Y ' g h c f U [ Y ž ' ] b W ' i X ] b [ ' U b m ' ] b Wc a d U h ] V ] ` ] h ] Y g '
         Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.
         GdYW]Z]W^{\cdot}YbX^{\cdot}igYg
         Not applicable.
         9 L D C G I F 9 · 7 C B H F C @ G # D 9 F G C B 5 @ · D F C H 9 7 H = C B ·
 "%' 7cbhfc' dUfUaYhYfg'
         7\,c\,a\,d\,c\,b\,Y\,b\,h\,g\,^\cdot\,k\,]\,\,h\,\backslash\,^\cdot\,k\,c\,f\,_-\,d\,^\cdot\,U\,WY\,^\cdot\,Wc\,b\,h\,f\,c\,^\cdot\,^\cdot\,^\cdot\,d\,U\,f\,\,U\,a\,Y\,h\,Y\,f\,g\,^\cdot
         Contains no substances with occupational exposure limit values.
, "&' 9ldcgifY' Wcbhfc`g
         5 d d f c d f ] U h Y · 9 b [ ] b Y Y f ] b [ · 7 c b h f c ` g ·
         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
         DYfgcbU` DfchYWh]jY 9ei]daYbh '
         9 mY · # · : U WY · Df c h Y Wh ] c b
         Use appropriate safety glasses.
         G_{-}] b · Df c h Y Wh ] c b
         Handle with gloves. Gloves must be inspected prior to use. 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. The selected protective gloves must satisfy the specifications of
         Regulation (EU) 2016/425 and the standard EN 374 derived from it. 6 c X m Df c h Y Wh ] c b
         Wear appropriate protective clothing.
         FYgd | f Uhcfm DfchYWh | cb
         For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government
         standards such as NIOSH (US) or CEN (EU).
         D < MG = 7.5 @ ... 5 B 8 ... 7 < 9 A = 7.5 @ ... D F C D 9 F H = 9 G ...
- " %' = b Z c f a U h ] c b ' c b ' V U g ] W' d \ mg ] WU ` ' U b X ' W\ Y a ] WU ` ' d f c d Y f h ] Y g '
          5 d d Y U f \dot{}
                                                                                               JUdcf Df
                                                     clear liquid
                                                                                                                                           No data available
                                                                                                J U d c f · 8 Y b g ] h m ·
         CXcf
                                                                                                                                           No data available.
         C \; X \; c \; f \; \cdot \; H \setminus f \; Y \; g \setminus c \; \cdot \; X \; \cdot
                                                    No data available.
                                                                                               FY`Uh]jY'8Ybg]hm'
                                                                                                                                           No data available
                                                    No data available.
                                                                                               Gc`iV]`]hmfl]YgŁ
                                                                                                                                           No data available
         AY `h]b[`#`: fYYn]b[`DcNp dbata available.
                                                                                               DUf h ] h ] c b · 7 c Y Z Z ] W] Y b hNo data available.
         6\,c ] ` ] b [ ` D c ] b h ` # ` F U b [ YNo data available.
                                                                                                5 i h c ] [ b ] h ] c b ' H Y a d Y f U h Niofd Afa available.
         8\ Y\ Wc\ a\ d\ c\ g\ ]\ h\ ]\ c\ b\ ^\ H\ Y\ a\ d\ Y\ f\ UNhoid aft a Ya vailable.
                                                    No data available.
         9j Udcf Uh]cb·FUhY·
                                                    No data available.
                                                                                                                                           No data available.
                                                                                                J]gWcg]hm
            `UaaUV]`]hm`flGc`]Xž `Npollabpa.Lavailable.
                                                                                                9 \ l \ d \ c \ g \ ] \ j \ Y \ D \ f \ c \ d \ Y \ f \ h \ ] \ Y \ g \ No \ data \ available.
```

 $I\ d\ d\ Yf\ '\ \#\ '\ @\ c\ k\ Yf\ '\ :\ '\ U\ a\ a\ U\ V\]\ \ h\ m\ '\ c\ f\ '\ 9\ l\ d\ '\ c\ g\]\ j\ Y\ '\ C\ l\]\ X\]\ n\]\ b\ [\ '\ D\ f\ c\ d\ Yf\ h\]\ Y\ g\ '\ No\ data\ available.$

) " % · 9 l h] b [i] g \] b [· A Y X] U ·

@] a] hg

- " & ` C h \ Y f ` g U Z Y h m `] b Z c f a U h] c b

Gi]hUV`Y'Ylh]b[i]g\]b['aYX]U'

```
% $ " · G H 5 6 = @ = H M · 5 B 8 · F 9 5 7 H = J = H M ·
% $ " % 'F Y U Wh ] j ] h m
         No data available.
%$"&'7\Ya]WU`'ghUV]`]hm'
         No data available.
% $ " ' 'Dcgg ] V ] ` ] h m ' c Z ' \ U n U f X c i g ' f Y U W h ] c b g '
         No data available.
% $ " ( '7 c b X] h ] c b g ' h c ' U j c ] X '
         No data available.
% $ " ) '= b Wc a d U h ] V ` Y ` a U h Y f ] U ` g `
         Strong oxidizing agents.
% $ " * ' < U n U f X c i g ' X Y W c a d c g ] h ] c b ' d f c X i Wh g '
         Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx). In the event of fire: see section 5
\%\,\% " · HCL = 7C@C; = 75@ · = B : CFA5H = CB ·
%%" % = b Z c f a U h ] c b ` c b ` h c l ] Wc ` c [ ] WU ` ` Y Z Z Y Wh g `
         5 Wi h Y ' H c l | W | h m'
         G_{-}] b · 7 c f f c g ] c b · # · = f f ] h U h ] c b ·
         Classified based on available data
         GYf] cig'9mY'8UaU[Y'#'=ff]hUh]cb'
         Classified based on available data
         F Y g d ] f U h c f m ' c f ' G _ ] b ' G Y b g ] h ] n U h ] c b '
         Classified based on available data
         ; Yfa '7Y' ` AihU[Yb]W]hm
         Classified based on available data
         7 Uf W] bc [Yb] W] hm
         Classified based on available data
         F\;Y\;d\;f\;c\;X\;i\;\;Wh\;]\;\;j\;\;Y\;\cdot\;\;H\;c\;l\;\;]\;\;W]\;\;h\;m\;\cdot
         Classified based on available data
         GdYW] Z] W HUf [Yh Cf [Ub Hcl] W hm ! G] b [ Y 9l dcgifY .
         Classified based on available data
          \texttt{GdYW} \texttt{ Z } \texttt{ J } \texttt{ W' } \texttt{ HUf } \texttt{ [ Yh ' Cf [ Ub ' Hcl ] W] } \texttt{ hm' ! ' FYdYUhYX' 91 } \texttt{ dcgifY' } 
         Classified based on available data
         5 g d | f U h | c b ' < U n U f X '
         Classified based on available data
         G\,ma\,d\,h\,c\,a\,g^{\,\cdot}\,\,\#^{\,\cdot}\,F\,c\,i\,\,h\,Y\,g^{\,\cdot}\,c\,Z^{\,\cdot}\,\,9\,l\,\,d\,c\,g\,i\,\,f\,\,Y^{\,\cdot}
                                    There may be irritation of the throat with a feeling of tightness in the chest.
          Inhalation:
          Ingestion:
                                    There may be irritation of the throat.
          Skin-
                                    There may be mild irritation at the site of contact.
                                    There may be irritation and redness.
          Eyes:
          Delayed / Immediate
                                    No known symptoms.
         5 X X ] h ] c b U ` · = b Z c f a U h ] c b
         Classified based on available data
```

% & " & 'D Y f g] g h Y b WY ' U b X ' X Y [f U X U V] `] h m '

No data available.

%&"' 6]cUWWiai`Uh]jY dchYbh]U`

No data available.

No data available.

```
\%\,\&\," ) 'F Y g i ` h g ' c Z ' D 6 H ' U b X ' j D j 6 ' U g g Y g g a Y b h '
```

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

```
\% & " * 'C h \ Y f ' U X j Y f g Y ' Y Z Z Y Wh g '
```

No data available Discharge into the environment must be avoided. Discharge into the environment must be avoided. No data available Discharge into the environment must be avoided. Depending on the concentration, phosphates may contribute to the eutrophication of water supplies. Discharge into the environment must be avoided.

```
\%' " \cdot 8 = G D C G 5 @ \cdot 7 C B G = 8 9 F 5 H = C B G \cdot
```

%' " % KUghY hf YUhaYbh a $Yh \setminus cXg$

DfcXi Wh

Offer surplus and non-recyclable solutions to a licensed disposal company.

7 c b h U a] b U h Y X · D U W_ U [] b [·

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

```
%( " · HF 5 B G D C F H · = B : C F A 5 H = C B ·
```

Not regulated for Land Transport (ADR/RID), for Sea Transport (IMDG) or for Air Transport (IATA).

```
%( " % \dot{} I B! Bi a VYf \dot{}
```

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

```
%( " & I B \cdot df c dY f \cdot g \setminus [dd] b [ b UaY \cdot g \setminus [dd] b
```

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

%("' 'Hf Ubgdcfh' \ UnUf X' W' UggflYgŁ'

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

%(" ('DUW_U[] b[' [fcid'

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

%(") '9 bj] f c b a Y b h U` \ U n U f X g

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

%(" * 'GdYW] U` 'dfYWUih]cbg'Zcf'igYfg'

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

5 X X] h] c b U ` · H f U b g d c f h · = b Z c f a U h] c b ·

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

%) " F 9 : I @ 5 H C F M = B : C F A 5 H = C B

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

HG75 flHcl] W GiVghUb NVoYapplic Abdebhfc` 5 WhŁ . .

G 5 F 5 ' ' Not applicable.

G5F5''%%N+otapplicable:

79F7@5 FYdcfhUVNoYappMiotablebh]hm. .

 $7~U~^\circ$] $Z~c~f~b~]~U~^\circ~D~f~\text{Ntotlappylic]ablie]}~c~b~^*~)~^\circ~.~^\circ$

%) " & $^{\cdot}$ 7 \ Y a] WU $^{\cdot}$ ' g U Z Y h m $^{\cdot}$ U g g Y g g a Y b h $^{\cdot}$

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

%* " C H < 9 F = B : C F A 5 H = C B .

: $i f h \setminus Y f = b Z c f a U h] c b$

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

End of safety data sheet