

 $G U Z Y h m^{\cdot} 8 U h U^{\cdot} G \setminus Y Y h^{\cdot}$ 

Version 3.0 SDS Revisio www.novusbio.com

%" · = 89BH=: = 75H=CB<sup>··</sup>C: H<9<sup>··</sup>GI 6GH5B79#A=LHIF9<sup>··</sup>5B8<sup>··</sup>C: H<9<sup>··</sup>7CAD5BM#IB89FH5?=B; %" % · Df c Xi Wh · = XYbh ] Z ] Yf g · Product Name: Protamine 1 Overexpression Lysate Catalog Number: NBL1-14791 Components: Overexpression Lysate Empty Vector Negative Control 2x SDS Sample Buffer (contains SDS) %" & `FY`YjUbh`]XYbh]Z]YX`igYg`cZ`h\Y`giVghUbWY`cf`a]lhifY`UbX`igYg`UXj]gYX`U[U]bgh` Identified Uses: For research use only. %"'` 8YhU]`g`cZ`h\Y`gidd`]Yf`cZ`h\Y`gUZYhm`XUhU`g\YYh` Company: Novus Biologicals a Bio-Techne Brand Telephone: 1 - 8 8 8 - 5 0 6 10771 E Easter Ave Fax: 1 - 303 - 730 - 1966Centennial, CO 80112 USA Internet: www.novusbio.com Email address: novus @novusbio.com Canada: 461 North Service Rd West Telephone: 1 - 8 5 5 - 6 6 8 - 8 7 2 2 Unit B37 Fax: 902-827-6402 Oakville, ON L6M 2V5 Email address: Canada.inquiries@bic United Kinadom: 19 Barton Lane Tel ephone: 44 (0) 1235 52944 Abingdon Science Park Fax: (0) 1 2 3 5 5 3 3 4 2 0 44 Abingdon, OX14 3NB Email address: info.emea@bio-techne. China: 1193 Changning Road Unit 1901, Raffles Changning Office Shanghai, China %" ( ' 9 a Y f [ Y b Wm' H Y ` Y d \ c b Y ' B i a V Y f ' Emergency Tel: For chemical emergency, spill, leaWvjtfnineU.6sxpols8:000-2662-882600d&WootldawibleC Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 8 &" ' < 5 N 5 F 8 G = 8 9 B H = : = 7 5 H = C B&" % <sup>·</sup> 7 <sup>·</sup> Ugg]Z]WUh]cb<sup>·</sup>cZ<sup>·</sup>h\Y<sup>·</sup>giVghUbWY<sup>·</sup>cf<sup>·</sup>a]lhifY<sup>·</sup> 7`Ugg]Z]WUh]cb`UWWcfX]b[`hc`FY[i`Uh]cb`fl97Ł`Bc`%&+&#&\$\$,`O;<G#7@DQ`cf`&-`7:F`%-%\$"%&\$\$ Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Eye Irritation - Category 2 &" & ' @UVY` ' 9`YaYbhg'  $@\,U\,V\,Y^{\,\,}\,]\,\,b\,[\,\,^{\,\,}\,U\,WWc\,f\,\,X\,]\,\,b\,[\,\,^{\,\,}\,h\,c\,^{\,\,}\,F\,\,Y\,[\,\,i\,^{\,\,}\,U\,h\,]\,\,c\,\,b\,^{\,\,}\,f\,l\,9\,7\,\,k^{\,\,}\,B\,c^{\,\,\,}\,\,\%\,\&\,+\,\&\,\#\,\&\,S\,\,S\,\,,\,^{\,\,}\,O\,;\,\,<\,G\,\,\#\,\,7\,\,@\,D\,\,Q^{\,\,}$ Pictogram(s): Signal Word: Warning Hazard Statement(s): H315 Causes skin irritation. Causes serious eye irritation. H319 Precautionary Statement(s): P264 Wash hands thoroughly after handling Wear protective gloves, protective clothing/eye protection/face pro IF ON SKIN: Wash with plenty of soap and water. P280 P302+P352 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Re 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. & " ' '  $C h \setminus Y f$  ' < U n U f X g '

	GiVghUbWYg <sup>·</sup> Sodium Dodecyl Sulfate A]lhifYg <sup>·</sup>									
						7 c a d c b Y b h '	75G'Bc"	97 Bc "	= b X Y l · B c " ·	7`Ugg]Z]WUh]cb'
							Sodium Dodecyl Sulfate		151-2	21-3
	(" .	: = F G H · 5 = 8 · A 9 5 G I F	9 G ·							
( " % <sup>.</sup>	8 Y g Wf ] d h ] c b <sup>·</sup> c Z <sup>·</sup> Z ]	fgh'U]X'aYUgifY	íg '							
	; Y b Y f U`` 5 X j ] WY <sup>.</sup>									
	Consult a doctor and show this safety data sheet.									
	$= Z^{\circ} = b \setminus U^{\circ} YX^{\circ}$ Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen									
	Remove to fresh air and monitor breathing. It breathing becomes difficult, give oxygen = b 7 UgY cZ G_ b 7 cbhUWh									
	= b / 0 g r c 2 G_j b / c b n 0 wn Immediately wash skin with copious amounts of soap and water for at least 15 minutes.									
	$= b^{7} Ug Y^{7} c Z^{7} 9 m Y^{7} 7 c b h U Wh^{7}$									
	Flush with copious amounts of water for at least 15 minutes. Remove contact lenses if									
	$= Z \cdot G k U \cdot \cdot c k Y X \cdot$									
	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical per									
("&`	Acgh`]adcfhUbh`gmadhcag`UbX`YZZYWhgž`Vch\`UWihY`UbX`XY`UmYX`									
	$= b \setminus U \cap Uh ] c b$									
	Material may be irritating to the mucous membranes and upper respiratory tract.									
	Causes skin irritation.									
	9 mYg	tion								
	Causes eye irritation. = b[Ygh]cb'									
	May be harmful if ingested.									
("''		-	UhhYbhlcb'UbX's	gdYW]U``hfYUhaYbh`b	YYXYX <sup>*</sup>					
(					e medical attention i					
	•									
	) " : = F 9 ! : = ; < H = B ; A 9 5 G I F 9 G .									
	91 h] b [ i ] g \ ] b [ ' A Y X									
	Gi]hUV`Y'Ylh]b[i]g\]b[`aYX]U'									
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.									
	GdYW]U``\UnUfXg`Uf]g]b[`Zfca`h\Y`giVghUbWY`cf`a]lhifY` Combustible. In case of fire, irritating or toxic fumes or gases may be formed.									
) " ' ·	DfYWUih]cbg'Zcf'Z		filating of to	kic iumes of gases	may be formed.					
	- 0		nato prevent co	ontact with skin an	nd eves and self-conta					
	Wear suitable protective clothing to prevent contact with skin and eyes and self-conta									
* " `	5 7 7 = 8 9 B H = 5 @ · F 9 @ 9	5 G 9 · A 9 5 G I F 9 G ·								
* " % ·	DYfgcbU` 'dfYWUih]	c b g ž ˈ d f c h Y Wh ] j Y	Y · Yei]daYbh · UbX	YaYf [YbWm'dfcWYXif	Yg					
	Do not take action without suitable protective clothing - see section 8 of SDS. Evacua									
* " 0 .	or gas.	Will: bloba:								
	9bj]fcbaYbhU`'dfY	-								
	Do not let product enter drains. AYh\cXg`UbX`aUhYf]U`g`Zcf`WcbhU]baYbh`UbX`W`YUb]b[`id`									
	Cover spillage with suitable absorbent material. Hold all material for appropriate dis									
*"(`	FYZYfYbWY hc ch\Y									
	For required PPE see section 8. For disposal see section 13.									
+ " ·	< 5 B 8 @ = B; 5 B 8 G H C	F 5 : 9 <sup>·</sup>								
+ " % ` Df Y WUi h] c b g ` Z c f ` g UZ Y ` \ Ub X ` ] b [ `										
+ 70	о о		aves skin and a	clothing llee in a	well-ventilated area.					
+ " &, ·	7cbX]h]cbg <sup>·</sup> Zcf <sup>·</sup> gU		-	-	worn-vontriated afed.					
		8								

Store in cool, well-ventilated area. Keep container tightly closed in a dry and well-v leakage. Do not store in incompatible containers.

```
+ " ' ' G d Y W] Z ] W' Y b X ' i g Y g '
```

```
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 k h \land k c f d \land U W Y W c b h f c \land d U f U a Y h Y f g
      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 s
      eye wash station. Avoid contact with skin, eyes, and clothing. Wash hands before break
      DYfgcbU``DfchYWh]jY'9ei]daYbh'
      9 mY ' # ' : UWY ' Df c h YWh ] c b '
      Use appropriate safety glasses.
      G_ | b <sup>·</sup> Df c h Y Wh | c b <sup>·</sup>
      Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:
      handling.
      6 c X m' Df c
      Wear appropriate protective clothing.
      FYgd]fUhcfm<sup>·</sup>DfchYWh]cb
      If risk assessment indicates necessary, use a suitable respirator.
. .
         D < MG = \ 7 \ 5 \ @ \ \cdot \ 5 \ B \ 8 \ \cdot \ 7 < \ 9 \ A = \ 7 \ 5 \ @ \ \cdot \ D \ F \ C \ D \ 9 \ F \ H = \ 9 \ G \ \cdot \ 
- " % ·
         = 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 U b WY '
                                                                JUdcf DfYggifY
                                   Liauid
                                                                                            No data available.
                                                                JUdcf<sup>·</sup>8Ybg]hm<sup>·</sup>
      CXcf<sup>·</sup>
                                   Little to none
                                                                                            No data available.
                                                                FY`Uh]jY'8Ybg]hm'
      C X c f \cdot H \setminus f Y g \setminus c \cdot X
                                   No data available.
                                                                                            No data available.
                                   No data available.
                                                                Gc`iV]`]hm<sup>·</sup>
                                                                                            Soluble
      d < '
      AY`h]b['#':fYYn]b['DcN]obhdata available.
                                                                DUfh]h]cb<sup>·</sup>7cYZZ]W]YbhNo data available.
      6c]`]b['Dc]bh'#'FUb[YNo data available.
                                                                5 i h c ] [ b ] h ] c b ' H Y a d Y f U h Niof Y d'ata avail able.
      : `Ug\ 'Dc]bh '
                                   No data available.
                                                                8 Y Wcadcg]h]cb<sup>·</sup> H Yad Y f UNhoi f dYa<sup>·</sup>ta available.
      9j Udcf Uh]cb'FUhY'
                                   No data available.
                                                                J]gWcg]hm<sup>·</sup>
                                                                                            No data available
      :`UaaUV]`]hmˈflGc`]XžʻŅoUgoLata available.
                                                                91 d` c Df c d Y '
                                                                                            No data available.
      IddYf ' # ' @ckYf ': ` UaaUV] ` ] hm' cf '
      91 d`cg]jY`@]a]hg````No data available. Cl]X]n]b[`DfcdYfh]Yg No data available.
· _ " & ·
         ···· Ch\Yf gUZYhm ] bZcfaUh] cb
      No data available.
% $ " · 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'
```

Stable under recommended storage conditions.

% \$ " ' ' D c g g ] V ] ` ] h m' c Z ' \ U n U f X c i g ' f Y U Wh ] c b g '

Hazardous reactions will not occur under normal transport or storage conditions. Decom %S" (`7cbX] h] cbg`hc`Ujc] X`

No data available.

% \$ ") '= b Wc a d U h ] V `Y ` a U h Y f ] U `g `

Oxidizing agents.

% S " \* '< Un Uf Xc i g ' XY Wc a d c g ] h ] c b ' d f c Xi Wh g '

Carbon dioxide, Carbon monoxide, Sodium oxides, Sulfur oxides.

%%" HCL = 7 C @C; = 7 5 @ = B : C F A 5 H = C B

```
%%" % = bZcfaUh]cb`cb`hcl]Wc`c[]WU`YZZYWhg
5WihY`Hcl]W]hm`
LD50 Oral - rat - 1,288 mg/kg.
G_]b`7cffcg]cb`#`=ff]hUh]cb`
Causes redness.
```

```
GYf ] cig \cdot 9mY \cdot 8UaU[Y \cdot # \cdot = ff ] hUh ] cb
```

```
Redness and pain.
     FYgd]fUhcfm'cf'G_]b'GYbg]h]nUh]cb'
     Sore throat and cough.
     ; Yfa'7Y``AihU[Yb]W]hm'
     Classified based on available data.
     7 Uf W] b c [ Y b ] W] h m<sup>·</sup>
     Classified based on available data.
     FYdfcXiWh]jY'Hcl]W]hm'
     Classified based on available data.
     GdYW] Z] W<sup>·</sup> HUf [Yh<sup>·</sup> Cf [Ub<sup>·</sup> Hcl] W] hm<sup>·</sup>!<sup>·</sup>G] b [`Y<sup>·</sup>91 dcgifY<sup>·</sup>
     Classified based on available data.
     GdYW] Z] W<sup>·</sup> HUf [Yh<sup>·</sup> Cf [Ub<sup>·</sup> Hcl] W] hm<sup>·</sup>! <sup>·</sup> FYdYUhYX<sup>·</sup> 9l dcgifY<sup>·</sup>
     Classified based on available data.
     5 g d ] f U h ] c b ' < U n U f X '
     Classified based on available data.
     Gmadhcagʻ#ʻFcihYgʻcZʻ9ldcgifYʻ
     Inhalation: Causes cough and sore throat.
                     Causes abdominal pain, diarrhea, nausea, and vomiting.
     Ingestion:
                     Causes redness and irritation.
      Skin:
      Eves:
                     Causes redness and pain.
      Delayed / Immediate Effects:
     5 X X ] h ] c b U ` ` = b Z c f a U h ] c b `
······C·l`a`s`s`i`f`i`e`d` `based on available data.
\% \&" : 97 C @C; = 75 @: = B: CFA5H = CB
%&" % 'Hcl | W| hm'
     No data available.
%&" & DYfg]ghYbWY UbX XY[fUXUV] `]hm
     No data available.
%&"''6]c'UWWiai`Uh]jY'dchYbh]U`'
     No data available.
%&" ( 'AcV] ` ] hm' ] b ' gc] ` '
     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 '
     No data available.
%&" * 'Ch \ Yf ' UXj YfgY' YZZYWhg'
     No data available.
\%' " · 8 = G D C G 5 @ · 7 C B G = 8 9 F 5 H = C B G ·
%' "% KUghY hf YUhaYbh aYh cXg
     DfcXiWh<sup>.</sup>
     Transfer to a suitable container and arrange for collection by specialized disposal co
     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
     GdYW]U``DfYWUih]cbg`
     Dispose of small amounts of spilled material as described in section 6. Large spills m
     waterways, drains, and sewers.
\%("" HF5BGDCFH" = B: CFA5H = CB"
     Classified according to the criteria of the UN Model Regulations as reflected in the I
%( " % I B! Bi a VYf '
     Does not meet the criteria for classification as hazardous for transport.
%( " & 'I B ' df c dYf ' g \ ] dd ] b [ ' bUa Y '
     Does not meet the criteria for classification as hazardous for transport.
%( " ' 'Hf Ub g d c f h ' \ Un Uf X ' W ` Ug g fl Yg Ł '
     Does not meet the criteria for classification as hazardous for transport.
```

```
%( " ( ^{\cdot}DUW_U[ ] b [ ^{\cdot} [ f c i d ^{\cdot}
```

Does not meet the criteria for classification as hazardous for transport. %(") '9bj]fcbaYbhU``\UnUfXg' Does not meet the criteria for classification as hazardous for transport. %("\*'GdYWJU`'dfYWUih]cbg'Zcf'igYfg' Does not meet the criteria for classification as hazardous for transport. 5XX]h]cbU`'HfUbgdcfh'=bZcfaUh]cb' 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. 453/2010. %) "% GUZYhmž \YU`h\`UbX`Ybj]fcbaYbhU``fY[i`Uh]cbg#`Y[]g`Uh]cb`gdYW]Z]W`Zcf`h\Y`giVghUbWY`cf HG75`flHcl]W`GiVghUbSWbYdgiu7ncbDhofdce'c'y5lWhSLul'fate is listed. G5F5`'N%b't.`applicable. G5F5`'%Nh#b't%&a.p'plicable. 79F7@5`FYdcfhUVN oYt`EaipUpblhi]dnambl'e. 7U`]Zcfb]U`DfNcodtcga]php]lcibc`a\*bll.e'. %) "& '7\Ya]WU``gUZYhm`UggYggaYbh`

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

 $\%\,^*$  "  $\,^{\cdot}$  C H < 9 F  $\,^{\cdot}$  = B : C F A 5 H = C B  $\,^{\cdot}$ 

: 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 c experienced scientists in appropriately equipped and authorized facilities. The above used as a guide only for experienced personnel. Always consult your safety advisor and not, under any circumstance, be taken to mean that no hazard exists. End of safety data sheet.