

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: TdT Enzyme

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification: Proteintech Group 5400 Pearl Street STE 300 Rosemont, IL 60018 312-455-8498

Emergency telephone number: 312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

Classification according to Regulation (EC) No 1272/2008 [CLP]

Physical hazards: Not hazardous Health hazards: Not Hazardous Environmental Hazards: Not Hazardous Additional information: Not applicable

Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms: None Signal word: None

Hazard statements: Not applicable EU Specific Hazard Statements: Not applicable

Precautionary Statements
Prevention: Not applicable
Response: Not applicable
Storage: Not applicable

Storage: Not applicable
Disposal: Not applicable
Other Hazards: Not applicable

3. INGREDIENT COMPOSITION/INFORMATION:

Does not meet the criteria for classification in accordance with Regulation (EC) No 1272/2008.

Does not contain substances presenting a health or environmental hazard in concentrations equal to or greater than the lowest of any of the limits mentioned in Regulation (EC) No 1272/2008

4. FIRST AID MEASURES:

Skin Contact	Wash off skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse.
Eye Contact	Ensure adequate flushing of eye contamination for at least 15 minutes.
Inhalation	Remove from exposure, rest and keep warm.
Ingestion	Wash mouth out thoroughly with water and drink plenty of water.

Most important symptoms and effects: both acute and delayed Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Advice for emergency responders: For further assistance, contact your local Poison Control Center.

Protection of first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Water Spray, Carbon Dioxide, Dry Chemical Powder, or appropriate foam.
Unsuitable extinguishing media: No information available

Special hazards arising from the substance or mixture: Not known. Advice for fire-fighters: Standard procedure for chemical fires

6. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective clothing (Section 8). Mop up with an absorbent cloth and arrange removal by a disposal company. Wash site of spillage thoroughly with water and detergent and prevent further leakage or spillage if safe to do so. No special environmental precautions required.

7. HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes and clothing. Wear appropriate protective clothing (Section 8).

Keep container tightly closed, and in a dark, well-ventilated area. Store at -20°C.

B. EXPOSURE CONTROLS/PPE:

Follow good laboratory practice when handling this product.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice

Recommended personal protection equipment

Eye protection: Laboratory safety goggles. Hands:

Chemical resistant gloves.

Skin: Laboratory protective clothing.

Respiratory: Fume hood or in areas with adequate ventilation.

Control Parameters:

Not applicable

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Colorless liquid

Odor: None

Melting point/melting range: Untested Boiling point/boiling range: Untested

Flash point: Untested

Autoignition temperature: Untested Decomposition temperature: Untested

Evaporation rate: Untested Flammability: Untested

Upper explosion limit: Untested Lower explosion limit: Untested Vapor pressure: Untested Relative density: Untested

Specific gravity: Untested Solubility: Untested

Partition coefficient: Untested Explosive properties: Untested

10. CHEMICAL STABILITY AND REACTIVITY:

Reactivity: None known



Chemical stability: Stable under normal conditions Possibility of hazardous reactions: None reported Conditions to avoid: No data available Incompatible materials: None reported Hazardous decomposition products: No data available

11. TOXICOLOGICAL INFORMATION:

Inhalation: May be irritating to mucous membranes and upper respiratory tract.

Eye contact: May cause irritation Skin contact: May cause irritation Ingestion: May be harmful if swallowed Carcinogenic effects: Not available Mutagenic effects: Not available Reproductive toxicity: Not available STOT – Single exposure: Not available STOT – Repeated exposure: Not available Teratogenic effects: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

Dispose of waste in accordance with local and national regulations.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

Substances of Very High Concern: None.

Restricted substances under EC 1907/2006, Annex XVII: None.

Substances listed under Annex I of Regulation (EC) No 689/2008: None.

Restricted substances under Annex V of Regulation (EC) No 689/2008: None.

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC: None.

German Water hazard classes (Wassergefährdungsklassen): Not classified.

Other International Inventories: No information available

16. OTHER INFORMATION:

Reason for revision: New product

Revision number: 1 Revision: 2/4/2021

The above information is believed to be correct but should only be used as a guide for experienced personnel. Proteintech Group Inc. will not be liable for any damage resulting from the handling of or from contact with the above product.



IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: DNAse I buffer

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification:

Proteintech Group 5400 Pearl Street STE 300 Rosemont, IL 60018 312-455-8498

Emergency telephone number:

312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

Classification according to Regulation (EC) No 1272/2008 [CLP]

Physical hazards: Not hazardous Health hazards: Not Hazardous Environmental Hazards: Not Hazardous Additional information: Not applicable

Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms: None Signal word: None

Hazard statements: Not applicable

EU Specific Hazard Statements: Not applicable

Precautionary Statements Prevention: Not applicable Response: Not applicable

Storage: Not applicable Disposal: Not applicable Other Hazards: Not applicable

3. INGREDIENT COMPOSITION/INFORMATION:

Does not meet the criteria for classification in accordance with Regulation (EC) No 1272/2008.

Does not contain substances presenting a health or environmental hazard in concentrations equal to or greater than the lowest of any of the limits mentioned in Regulation (EC) No 1272/2008

4. FIRST AID MEASURES:

Skin Contact	Wash off skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse.
Eye Contact	Ensure adequate flushing of eye contamination for at least 15 minutes.
Inhalation	Remove from exposure, rest and keep warm.
Ingestion	Wash mouth out thoroughly with water and drink plenty of water.

Most important symptoms and effects: both acute and delayed Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Advice for emergency responders: For further assistance, contact your local Poison Control Center.

Protection of first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Water Spray, Carbon Dioxide, Dry Chemical Powder, or appropriate foam.

Unsuitable extinguishing media: No information available

Special hazards arising from the substance or mixture: Not known. Advice for fire-fighters: Standard procedure for chemical fires

6. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective clothing (Section 8). Mop up with an absorbent cloth and arrange removal by a disposal company. Wash site of spillage thoroughly with water and detergent and prevent further leakage or spillage if safe to do so. No special environmental precautions required.

7. HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes and clothing. Wear appropriate protective clothing (Section 8).

Keep container tightly closed, and in a dark, well-ventilated area. Store at -20 $^{\circ}\text{C}.$

8. EXPOSURE CONTROLS/PPE:

Follow good laboratory practice when handling this product.

Hygiene measures: Handle in accordance with good industrial hygiene and

safety practice

Recommended personal protection equipment

Eye protection: Laboratory safety goggles. Hands:

Chemical resistant gloves.

 ${\bf Skin: Laboratory \, protective \, clothing.}$

Respiratory: Fume hood or in areas with adequate ventilation.

Control Parameters:

Not applicable

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Colorless liquid

Odor: None

Melting point/melting range: Untested Boiling point/boiling range: Untested

Flash point: Untested

Autoignition temperature: Untested Decomposition temperature: Untested

Evaporation rate: Untested Flammability: Untested

Upper explosion limit: Untested Lower explosion limit: Untested Vapor pressure: Untested Relative density: Untested Specific gravity: Untested Solubility: Untested

Partition coefficient: Untested Explosive properties: Untested

f (+44)-161-24-13-103



10. CHEMICAL STABILITY AND REACTIVITY:

Reactivity: None known

Chemical stability: Stable under normal conditions Possibility of hazardous reactions: None reported Conditions to avoid: No data available

Incompatible materials: None reported

Hazardous decomposition products: No data available

11. TOXICOLOGICAL INFORMATION:

Inhalation: May be irritating to mucous membranes and upper respiratory tract.

Eye contact: May cause irritation Skin contact: May cause irritation Ingestion: May be harmful if swallowed Carcinogenic effects: Not available Mutagenic effects: Not available Reproductive toxicity: Not available STOT – Single exposure: Not available STOT – Repeated exposure: Not available Teratogenic effects: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

Dispose of waste in accordance with local and national regulations.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

 $Substances \, of \, Very \, High \, Concern: \, None. \,$

Restricted substances under EC 1907/2006, Annex XVII: None.

Substances listed under Annex I of Regulation (EC) No 689/2008: None.

Restricted substances under Annex V of Regulation (EC) No 689/2008: None.

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC: None.

German Water hazard classes (Wassergefährdungsklassen): Not classified.

Other International Inventories: No information available

16. OTHER INFORMATION:

Reason for revision: New product

Revision number: 1 Revision: 2/4/2021

The above information is believed to be correct but should only be used as a guide for experienced personnel. Proteintech Group Inc. will not be liable for any damage resulting from the handling of or from contact with the above product.



Cacodylic acid

Sodium azide

Eye Contact

Inhalation

200-883-4

247-852-1

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THECOMPANY/UNDERTAKING

Product Name: TUNEL reaction buffer

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification:

Group5400 Pearl Street STE 300 Rosemont, IL 60018

Proteintech

312-455-8498

Emergency telephone number:

312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

Classification according to Regulation (EC) No 1272/2008 [CLP]

Acute toxicity 4, Acute toxicity 2, Carcinogen 1A, Aquatic acute 1, Aquatic chronic

Acute Toxicity. 4, Skin Sensitizer. 1, Respiratory Sensitizer 1, Mutagenicity 2, Carcinogenicity 1B, Reproductive Toxicity 1B

Label elements



Labelling according to Regulation (EC) No 1272/2008 [CLP] Hazard pictograms:

Signal word: Danger Hazard statements:

H350 - May cause cancer

H412 - Harmful to aquatic life with long lasting effects

Precautionar

y Statements

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P281 - Use personal protective equipment as required

P308 + P313 - IF exposed or concerned: Get medical advice/

attention

P405 - Store locked up

Proteintech Group, USA,

Rosemont, IL 60018, USA

t 1-888-478-4522

f 1-312-4558408

5400 Pearl Street, Suite 300.

P501 - Dispose of contents/ container to an approved waste disposal

plant

P273 - Avoid release to the environment

3. INGREDIENT COMPOSITION/INFORMATION:

Chemical Name	EC-No	CAS-No	Weight %	Classification (Reg. 1272/2008)
Cobalt chloride	231-589-4	7646-79-9	<0.1	STOT RE 2 (H373) Eye Dam. 1 (H318) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 1B (H350) Repr. 1B (H360F) Acute Tox. 4 (H302) Acute Tox. 4 (H332) Aquatic Acute 1 (H400) Auuatic Chronic 1 (H410)

Proteintech Europe,

4th Floor, 196 Deansgate, Manchester,

M3 3WF

t (+44)-161-83-93-007 f (+44)-161-24-13-103 4. FIRST AID MEASURES:

Wash off skin thoroughly with soap and water.
Remove contaminated clothing and wash before reuse.

<0.1

0.05

Ensure adequate flushing of eye contamination for at

Acute Tox. 3 (H301) Acute

Tox. 3 (H331) Aquatic Acute

1 (H400) Aquatic Chronic 1

Acute Tox. 2 (H300) Acute

(H410)

Remove from exposure, rest and keep warm.

26628-22-8

Ingestion Wash mouth out thoroughly with water and drink plenty ofwater.

Most important symptoms and effects: both acute and delayed Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Advice for emergency responders: For further assistance, contact your local Poison Control Center.

Protection of first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES:

least15 minutes.

Suitable extinguishing media: Water Spray, Carbon Dioxide, Dry Chemical Powder, or appropriate foam.

Unsuitable extinguishing media: No information available

Special hazards arising from the substance or mixture: Not known. Advice for fire-fighters: Standard procedure for chemical fires

6. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective clothing (Section 8). Mop up with an absorbent cloth and arrange removal by a disposal company. Wash site of spillage thoroughly with water and detergent and prevent further leakage or spillage if safe to do so. No special environmental precautions required.

7. HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes and clothing. Wear appropriate protective clothing (Section 8). Keep container tightly closed, and in a dark, well-ventilated area. Store at -20 °C.

8. EXPOSURE CONTROLS/PPE:

Follow good laboratory practice when handling this product.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice

$\label{lem:commended} \textbf{Recommended personal protection equipment}$

 $\hbox{\it Eye protection: Laboratory safety goggles. Hands:}$

Chemical resistant gloves.

Skin: Laboratory protective clothing.

 $\label{lem:Respiratory: Fume hood or in areas with adequate ventilation.}$

Control Parameters:

Not applicable

San Ying Biotechnology, China, D3-3, No.666 Gaoxin Avenue, Wuhan East Lake

Hi-tech Development Zone, Wuhan, P.R.C. t 86-27-87531629

t 86-27-87531629 f 86-27-87531627



9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Colorless liquid Odor: None Melting point/melting range: UntestedBoiling point/boiling range: Untested Flash point:

Untested

Ontested Autoignition temperature: Untested Decomposition temperature: Untested Evaporation rate: Untested Flammability:

Untested

Upper explosion limit: Untested Lower explosion

limit: Untested Vapor pressure:

Untested Relative density: Untested Specific gravity:

Untested Solubility: Untested

Partition coefficient: Untested Explosive properties: Untested

10. CHEMICAL STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal
conditionsPossibility of hazardous reactions:
None reported

Conditions to avoid: No data available Incompatible materials: None reported

Hazardous decomposition products: No data available

11. TOXICOLOGICAL INFORMATION:

Inhalation: May be irritating to mucous membranes and upper respiratory tract. Eye contact: May cause irritation

Skin contact: May cause irritation Ingestion: May be harmful if swallowed Carcinogenic effects: Not available Mutagenic effects: Not available

Reproductive toxicity: Not available STOT – Single exposure: Not available STOT – Repeated exposure: Not availableTeratogenic effects: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

Dispose of waste in accordance with local and national regulations.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

Substances of Very High Concern: None.

Restricted substances under EC 1907/2006, Annex XVII: None. Substances listed under Annex I of Regulation (EC) No 689/2008: None.

Restricted substances under Annex V of Regulation (EC) No 689/2008: None.

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC: None.

 $German\,Water\,haz ard\,classes\,(Wassergef\"{a}hrdungsklassen):\,Not\,classified.$

Other International Inventories: No information available

16. OTHER INFORMATION:

Reason for revision: New product Revision number: 1

Revision: 2/4/2021

The above information is believed to be correct but should only be used as a guide for experienced personnel. Proteintech Group Inc. will not be liable for any damage resulting from the handling of or from contact with the above product.



IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: DNase I

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification: Proteintech Group 5400 Pearl Street STE 300 Rosemont, IL 60018 312-455-8498

Emergency telephone number: 312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

Classification according to Regulation (EC) No 1272/2008 [CLP]

Physical hazards: Not hazardous Health hazards: Not Hazardous Environmental Hazards: Not Hazardous Additional information: Not applicable

Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms: None Signal word: None

Hazard statements: Not applicable EU Specific Hazard Statements: Not applicable

Precautionary Statements
Prevention: Not applicable
Response: Not applicable
Storage: Not applicable

Storage: Not applicable
Disposal: Not applicable
Other Hazards: Not applicable

3. INGREDIENT COMPOSITION/INFORMATION:

Does not meet the criteria for classification in accordance with Regulation (EC) No 1272/2008.

Does not contain substances presenting a health or environmental hazard in concentrations equal to or greater than the lowest of any of the limits mentioned in Regulation (EC) No 1272/2008

4. FIRST AID MEASURES:

Skin Contact	Wash off skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse.
Eye Contact	Ensure adequate flushing of eye contamination for at least 15 minutes.
Inhalation	Remove from exposure, rest and keep warm.
Ingestion	Wash mouth out thoroughly with water and drink plenty of water.

Most important symptoms and effects: both acute and delayed Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Advice for emergency responders: For further assistance, contact your local Poison Control Center.

Protection of first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Water Spray, Carbon Dioxide, Dry Chemical Powder, or appropriate foam.
Unsuitable extinguishing media: No information available

Special hazards arising from the substance or mixture: Not known. Advice for fire-fighters: Standard procedure for chemical fires

6. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective clothing (Section 8). Mop up with an absorbent cloth and arrange removal by a disposal company. Wash site of spillage thoroughly with water and detergent and prevent further leakage or spillage if safe to do so. No special environmental precautions required.

7. HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes and clothing. Wear appropriate protective clothing (Section 8).

Keep container tightly closed, and in a dark, well-ventilated area. Store at -20°C.

8. EXPOSURE CONTROLS/PPE:

Follow good laboratory practice when handling this product.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice

Recommended personal protection equipment

Eye protection: Laboratory safety goggles. Hands:

Chemical resistant gloves.

Skin: Laboratory protective clothing.

Respiratory: Fume hood or in areas with adequate ventilation.

Control Parameters:

Not applicable

PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Colorless liquid

Odor: None

Melting point/melting range: Untested Boiling point/boiling range: Untested

Flash point: Untested

Autoignition temperature: Untested Decomposition temperature: Untested

Evaporation rate: Untested Flammability: Untested

Upper explosion limit: Untested Lower explosion limit: Untested Vapor pressure: Untested Relative density: Untested

Specific gravity: Untested Solubility: Untested

Partition coefficient: Untested Explosive properties: Untested

10. CHEMICAL STABILITY AND REACTIVITY:

Reactivity: None known



Chemical stability: Stable under normal conditions Possibility of hazardous reactions: None reported Conditions to avoid: No data available Incompatible materials: None reported Hazardous decomposition products: No data available

11. TOXICOLOGICAL INFORMATION:

Inhalation: May be irritating to mucous membranes and upper respiratory tract.

Eye contact: May cause irritation Skin contact: May cause irritation Ingestion: May be harmful if swallowed Carcinogenic effects: Not available Mutagenic effects: Not available Reproductive toxicity: Not available STOT – Single exposure: Not available STOT – Repeated exposure: Not available Teratogenic effects: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

Dispose of waste in accordance with local and national regulations.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

Substances of Very High Concern: None.

Restricted substances under EC 1907/2006, Annex XVII: None.

Substances listed under Annex I of Regulation (EC) No 689/2008: None.

Restricted substances under Annex V of Regulation (EC) No 689/2008: None.

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC: None.

German Water hazard classes (Wassergefährdungsklassen): Not classified.

Other International Inventories: No information available

16. OTHER INFORMATION:

Reason for revision: New product

Revision number: 1 Revision: 2/4/2021

The above information is believed to be correct but should only be used as a guide for experienced personnel. Proteintech Group Inc. will not be liable for any damage resulting from the handling of or from contact with the above product.



IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: TUNEL equilibration buffer

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification: Proteintech Group 5400 Pearl Street STE 300 Rosemont, IL 60018 312-455-8498

Emergency telephone number: 312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

Classification according to Regulation (EC) No 1272/2008 [CLP]

Acute Tox 4, Acute Tox 2, Carc 1A Aquatic, Acute 1 Aquatic, Chronic, Carc. 1B Skin, Sens. 1 Muta. 2, Carc 1B Repr, 1B Aquatic

Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP] Hazard pictograms:



Signal word: Danger

Hazard statements: H350i – H412 EU Specific Hazard Statements: None

Precautionary Statements Prevention: P201, P202, P280

Response: P308 + P313 Storage: P405

Disposal: P501 Other Hazards: Not applicable

3. INGREDIENT COMPOSITION/INFORMATION:

Name	CAS No.	EC No.	Weight %	Classification according to 67/548/EEC	Classification according to regulation (EC)No1278/2008
Sodium cacodylate	75- 60-5	200- 883- 4	3%	Acute Tox 4 Acute Tox 2 Carc 1A Aquatic Acute 1 Aquatic Chronic	NA
Cobalt chloride	7646- 79-9	231- 589- 4	<0.1%	Acute Tox. 4 Carc. 1B Skin Sens. 1 Muta. 2 Carc 1B Repr. 1B Aquatic	Carc. 1B Acute Tox 4 Resp. Sens. 1

		Acute 1 Aquatic Chronic 1	
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4. FIRST AID MEASURES:

Skin Contact	Wash off skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse.
Eye Contact	Ensure adequate flushing of eye contamination for at least 15 minutes.
Inhalation	Remove from exposure, rest and keep warm.
Ingestion	Wash mouth out thoroughly with water and drink plenty of water.

Most important symptoms and effects: both acute and delayed Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Advice for emergency responders: For further assistance, contact your local Poison Control Center.

Protection of first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Water Spray, Carbon Dioxide, Dry Chemical Powder, or appropriate foam.

Unsuitable extinguishing media: No information available

Special hazards arising from the substance or mixture: Not known. Advice for fire-fighters: Standard procedure for chemical fires

6. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective clothing (Section 8). Mop up with an absorbent cloth and arrange removal by a disposal company. Wash site of spillage thoroughly with water and detergent and prevent further leakage or spillage if safe to do so. No special environmental precautions required.

7. HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes and clothing. Wear appropriate protective clothing (Section 8).

Keep container tightly closed, and in a dark, well-ventilated area. Store at -20°C.

8. EXPOSURE CONTROLS/PPE:

Follow good laboratory practice when handling this product. Hygiene measures: Handle in accordance with good industrial hygiene and safety practice

Recommended personal protection equipment

Eye protection: Laboratory safety goggles. Hands:

Chemical resistant gloves.

Skin: Laboratory protective clothing.

Respiratory: Fume hood or in areas with adequate ventilation.

Control Parameters:



Component	CAS No.	Value	Control parameters
Cobalt dichloride	7646-79-9	TWA	0.1 mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Light pink solution

Odor: None

Melting point/melting range: Untested Boiling point/boiling range: Untested

Flash point: Untested

Autoignition temperature: Untested Decomposition temperature: Untested

Evaporation rate: Untested Flammability: Untested Upper explosion limit: Untested Lower explosion limit: Untested Vapor pressure: Untested Relative density: Untested Specific gravity: Untested Solubility: Untested Partition coefficient: Untested Explosive properties: Untested Explosive properties: Untested

10. CHEMICAL STABILITY AND REACTIVITY:

Reactivity: None known

Chemical stability: Stable under normal conditions Possibility of hazardous reactions: None reported

Conditions to avoid: Avoid moisture

Incompatible materials: Oxidizing agents, alkali metals

Hazardous decomposition products: Hazardous decomposition products formed under fire

conditions. - Hydrogen chloride gas,

Cobalt/cobalt oxides

Other decomposition products - No data available

11. TOXICOLOGICAL INFORMATION:

Inhalation: Not available.

Eye contact: May cause irritation Skin contact: May cause irritation

Ingestion:

Oral LD50 – Sodium cacodylate – 644 mg/kg (rat); cobalt dichloride: 418 mg/kg (rat)

Carcinogenic effects:

Carcinogenicity - mouse - Oral (sodium cacodylic acid)

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration: Tumors. This product is or contains a component that is not classifiable as to its carcinogenicity based on

its IARC, ACGIH, NTP, or EPA classification. (sodium cacodylic acid)

IARC: 1 - Group 1: Carcinogenic to humans (sodium cacodylic acid); IARC: 2B - Group 2B:

Possibly carcinogenic to humans (Cobalt dichloride)

 ${\it 2B-Group~2B: Possibly carcinogenic~to~humans~(sodium~cacodylic~acid),~2B-Group~2B:}\\$

Possibly carcinogenic to humans (Cobalt dichloride)

IARC: 1 - Group 1: Carcinogenic to humans (sodium cacodylic acid)

2B - Group 2B: Possibly carcinogenic to humans (sodium cacodylic acid)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as aknown or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as

a carcinogen or potential carcinogen by OSHA.

Mutagenic effects: sodium cacodylic acid, cobalt dichloride

Reproductive toxicity:

Reproductive toxicity - mouse - Oral

 ${\it Effects} \ on \ Newborn: Growth \ statistics \ (e.g., reduced \ weight \ gain). \ Effects \ on \ Newborn: Physical.$

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. (Dimethylarsinic

acid)

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

Paternal Effects: Testes, epididymis, sperm duct. Effects on Fertility: Male fertility index (e.g., #

males impregnating females per # males exposed to fertile nonpregnant females) (Cobalt dichloride).

May damage fertility.

STOT – Single exposure: Inhalation STOT – Repeated exposure: Not available

Teratogenic effects: May cause congenital malformation in the fetus

12. ECOLOGICAL INFORMATION:

Toxicity:

Sodium cacodylate: Toxicity to fish LC50 - Lepomis macrochirus -> 180 mg/l - 96h Cobalt dichloride: Toxicity to fish LC50 - Cyprinus carpio (Carp) - 0.33 mg/l - 96h Cobalt dichloride: Toxicity to daphnia and other aquatic invertebrates mortality NOEC - Daphnia - < 0.05 mg/l - 7 d EC50 - Daphnia magna (Water flea) - 1.1 - 1.6 mg/l - 48 h

Cobalt dichloride: Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae) - 0.52 mg/l - 96 h

Persistence and degradability: Sodium cacodylic acid: Bioaccumulation Gambusia affinis (mosquito fish) – 32 d Bioconcentration factor: 21 Other adverse effects: Very toxic to aquatic life with long-lasting effects

13. DISPOSAL CONSIDERATIONS:

Dispose of waste in accordance with local and national regulations.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

Substances of Very High Concern: None.

Restricted substances under EC 1907/2006, Annex XVII: None.

Substances listed under Annex I of Regulation (EC) No 689/2008: None.

Restricted substances under Annex V of Regulation (EC) No 689/2008: None.

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC: None.

German Water hazard classes (Wassergefährdungsklassen): Not classified.

Other International Inventories: No information available

16. OTHER INFORMATION:

Reason for revision: New product

Revision number: 1 Revision: 2/4/2021

The above information is believed to be correct but should only be used as a guide for experienced personnel. Proteintech Group Inc. will not be liable for any damage resulting from the handling of or from contact with the above product.





IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Proteinase K

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification: Proteintech Group 5400 Pearl Street **STE 300** Rosemont, IL 60018 312-455-8498

Emergency telephone number: 312-455-8498, ext 802

HAZARDOUS IDENTIFICATION: 2.

Classification according to Regulation (EC) No 1272/2008 [CLP]

Physical hazards: Not hazardous Health hazards: Not Hazardous Environmental Hazards: Not Hazardous Additional information: Not applicable

Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms: None Signal word: None

Hazard statements: Not applicable

EU Specific Hazard Statements: Not applicable

Precautionary Statements Prevention: Not applicable Response: Not applicable

Storage: Not applicable Disposal: Not applicable Other Hazards: Not applicable

INGREDIENT COMPOSITION/INFORMATION:

Does not meet the criteria for classification in accordance with Regulation (EC) No 1272/2008.

 $Does \, not \, contain \, substances \, presenting \, a \, health \, or \, environmental \, hazard \, in \, concentrations \, equal \, eq$ to or greater than the lowest of any of the limits mentioned in Regulation (EC) No 1272/2008

FIRST AID MEASURES:

Skin Contact	Wash off skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse.
Eye Contact	Ensure adequate flushing of eye contamination for at least 15 minutes.
Inhalation	Remove from exposure, rest and keep warm.
Ingestion	Wash mouth out thoroughly with water and drink plenty of water.

Most important symptoms and effects: both acute and delayed Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically

Advice for emergency responders: For further assistance, contact your local Poison Control Center.

Protection of first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Water Spray, Carbon Dioxide, Dry Chemical Powder, or appropriate foam.

Unsuitable extinguishing media: No information available

Special hazards arising from the substance or mixture: Not known. Advice for fire-fighters: Standard procedure for chemical fires

ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective clothing (Section 8). Mop up with an absorbent cloth and arrange removal by a disposal company. Wash site of spillage thoroughly with water and detergent and prevent further leakage or spillage if safe to do so. No special environmental precautions required.

HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes and clothing. Wear appropriate protective clothing (Section 8).

Keep container tightly closed, and in a dark, well-ventilated area. Store at -20°C.

EXPOSURE CONTROLS/PPE:

Follow good laboratory practice when handling this product.

Hygiene measures: Handle in accordance with good industrial hygiene and

safety practice

Recommended personal protection equipment

Eye protection: Laboratory safety goggles. Hands:

Chemical resistant gloves.

Skin: Laboratory protective clothing.

Respiratory: Fume hood or in areas with adequate ventilation.

Control Parameters:

Not applicable

PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Colorless liquid

Odor: None

Melting point/melting range: Untested Boiling point/boiling range: Untested

Flash point: Untested

Autoignition temperature: Untested Decomposition temperature: Untested

Evaporation rate: Untested Flammability: Untested

Upper explosion limit: Untested Lower explosion limit: Untested Vapor pressure: Untested Relative density: Untested

Specific gravity: Untested Solubility: Untested

Partition coefficient: Untested Explosive properties: Untested

10. CHEMICAL STABILITY AND REACTIVITY:

Reactivity: None known



Chemical stability: Stable under normal conditions Possibility of hazardous reactions: None reported Conditions to avoid: No data available Incompatible materials: None reported Hazardous decomposition products: No data available

11. TOXICOLOGICAL INFORMATION:

Inhalation: May be irritating to mucous membranes and upper respiratory tract.

Eye contact: May cause irritation Skin contact: May cause irritation Ingestion: May be harmful if swallowed Carcinogenic effects: Not available Mutagenic effects: Not available Reproductive toxicity: Not available STOT – Single exposure: Not available STOT – Repeated exposure: Not available Teratogenic effects: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available

13. DISPOSAL CONSIDERATIONS:

Dispose of waste in accordance with local and national regulations.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

Substances of Very High Concern: None.

Restricted substances under EC 1907/2006, Annex XVII: None.

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Revision number: 1 Revision: 2/4/2021

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