Mitochondrial Isolation and Protein Extraction Kit
Safety Data Sheet (SDS)

Proteintech Group, USA,
5500 Pearl Street, Suite 400,
Rosemont, IL 60018, USA
t 1-888-478-4522
f 1-312-4558408

Proteintech Europe,
4th Floor, 196 Deansgate, Manchester,
M3 3WF
t (+44)-161-83-93-007
f (+44)-161-24-13-103

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
f 86-27-87531627

www.ptglab.com

SAFETY DATA SHEET (SDS)

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

Product Name: Mitochondrial Isolation Solution A
Part NO.: PK10016-A
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Repeated Exposure/Inhalation	Category 2

GHS label elements
Pictogram:

Signal word: Warning
Hazard statements:
H319 - May cause serious eye injury.
Precautionary statements:
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 Dispose of contents/container to an approved waste disposal plant.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration	CAS NO.
Tris-base	10-100 mM	77-86-1

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures: For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.

Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure
Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

SAFETY DATA SHEET (SDS)

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

Product Name: Mitochondrial Isolation Solution B
Part NO.: PK10016-B
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

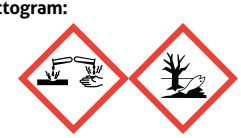
Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Long-term aquatic hazards	Category 1
Repeated Exposure/Inhalation	Category 2

GHS label elements
Pictogram:



Signal word: Warning
Hazard statements:
H319 - May cause serious eye injury.
H410 - Extremely toxic to aquatic organisms and has long-lasting effects.
Precautionary statements:
P273 - Avoid releasing into the environment.
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 Dispose of contents/container to an approved waste disposal plant.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration	CAS NO.
Tris-base	10-100 mM	77-86-1

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures: For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal

protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.

Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure
Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

SAFETY DATA SHEET (SDS)

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

Product Name: Mitochondrial Isolation Solution C
Part NO.: PK10016-C
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Repeated Exposure/Inhalation	Category 2

GHS label elements
Pictogram:

Signal word: Warning
Hazard statements:
H319 - May cause serious eye injury.
Precautionary statements:
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 Dispose of contents/container to an approved waste disposal plant.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration	CAS NO.
HEPES	1-20 mM	7365-45-9
Sucrose	50-500 mM	57-50-1

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures: For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on

suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure

Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

SAFETY DATA SHEET (SDS)

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

Product Name: Mitochondrial Isolation Solution D
Part NO.: PK10016-D
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Repeated Exposure/Inhalation	Category 2

GHS label elements
Pictogram:

Signal word: Warning
Hazard statements:
H319 - May cause serious eye injury.
Precautionary statements:
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 Dispose of contents/container to an approved waste disposal plant.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration	CAS NO.
Sucrose	50-500 mM	57-50-1
Sodium Chloride	50-500 mM	7647-14-5

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures: For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on

suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure

Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

SAFETY DATA SHEET (SDS)

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

Product Name: Mitochondrial Wash Solution
Part NO.: PK10016-E
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Repeated Exposure/Inhalation	Category 2

GHS label elements
Pictogram:

Signal word: Warning
Hazard statements:
H319 - May cause serious eye injury.
Precautionary statements:
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 Dispose of contents/container to an approved waste disposal plant.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration	CAS NO.
HEPES	1-20 mM	7365-45-9
Sucrose	50-500 mM	57-50-1

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures: For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas.

Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.

Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure
Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

SAFETY DATA SHEET (SDS)

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

Product Name: Mitochondrial Preservation Solution
Part NO.: PK10016-F
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Serious eye damage/eye irritation	Category 1
Repeated Exposure/Inhalation	Category 2
Acute (short-term) aquatic toxicity	Category 3
Acute toxicity (oral)	Category 4

GHS label elements
Pictogram:

Signal word: Warning
Hazard statements:
H302 - Harmful if swallowed.
H315 - May causes skin irritation.
H319 - May cause serious eye injury.
H402 - Harmful to aquatic organisms.
Precautionary statements:
P264 - Wash your skin thoroughly after use.
P270 - Do not eat, drink or smoke whilst using this product.
P273 - Avoid releasing into the environment.
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 Dispose of contents/container to an approved waste disposal plant.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P301+P312+P330 - IF SWALLOWED: If you feel unwell, call the emergency services or a doctor. Rinse your mouth.
P302+P352 - IF CONTACT SKIN: wash thoroughly with water.
P332+P313 - IF SKIN IRRITATION OCCURS: seek medical advice or attention.
P362+P364 - Remove soiled clothing and wash it before wearing it again.
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration	CAS NO.
Tris-base	50-300 mM	77-86-1
Sodium Chloride	50-500 mM	7647-14-5
Dithiothreitol	100-500 mM	3483-12-3

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures:
For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.

Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure
Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

SAFETY DATA SHEET (SDS)

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

Product Name: Mitochondrial Lysis Solution
Part NO.: PK10016-G
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Repeated Exposure/Inhalation	Category 2

GHS label elements
Pictogram:

Signal word: Warning
Hazard statements:
H319 - May cause serious eye injury.
Precautionary statements:
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 Dispose of contents/container to an approved waste disposal plant.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration (%, w/w)	CAS NO.
Tris-base	0.01-1%	77-86-1
Sodium Chloride	0.01-2%	7647-14-5
Sodium Deoxycholate	0.01-2%	302-95-4
TritonX-100	0.01-2%	9002-93-1

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure

mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures:
For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:

Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure
Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

SAFETY DATA SHEET (SDS)

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

Product Name: Janus Green B
Part NO.: PK10016-H
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

Pictogram: None
Signal word: None
Hazard statements: None
Precautionary statements: None
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration (%, w/w)	CAS NO.
Sodium Chloride	0.1-2%	7647-14-5
Janus Green B	0.1-1%	2869-83-2

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures:
For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure
Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:

Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

Proteintech Group, USA,
5500 Pearl Street, Suite 400,
Rosemont, IL 60018, USA
t 1-888-478-4522
f 1-312-4558408

Proteintech Europe,
4th Floor, 196 Deansgate, Manchester,
M3 3WF
t (+44)-161-83-93-007
f (+44)-161-24-13-103

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
f 86-27-87531627

www.ptglab.com

SAFETY DATA SHEET (SDS)

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

Product Name: SDS-PAGE Protein Loading Buffer (4X)
Part NO.: PK10016-I
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Serious eye damage/eye irritation	Category 1
Repeated Exposure/Inhalation	Category 2
Acute (short-term) aquatic toxicity	Category 3
Acute toxicity (oral)	Category 4

GHS label elements
Pictogram:

Signal word: Warning
Hazard statements:
H302 - Harmful if swallowed.
H315 - May causes skin irritation.
H319 - May cause serious eye injury.
H402 - Harmful to aquatic organisms.
Precautionary statements:
P264 - Wash your skin thoroughly after use.
P270 - Do not eat, drink or smoke whilst using this product.
P273 - Avoid releasing into the environment.
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 Dispose of contents/container to an approved waste disposal plant.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P301+P312+P330 - IF SWALLOWED: If you feel unwell, call the emergency services or a doctor. Rinse your mouth.
P302+P352 - IF CONTACT SKIN: wash thoroughly with water.
P332+P313 - IF SKIN IRRITATION OCCURS: seek medical advice or attention.
P362+P364 - Remove soiled clothing and wash it before wearing it again.
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration	CAS NO.
Tris-base	50-300 mM	77-86-1
Sodium Dodecyl Sulfate	5-20%	151-21-3
Dithiothreitol	100-500 mM	3483-12-3
Glycerol	10-50%	56-81-5
Bromophenol Blue	0.01-1%	115-39-9

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures:
For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure
Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

SAFETY DATA SHEET (SDS)

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

Product Name: Common Protease Inhibitor Mixture
Part NO.: PK10016-J
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 2
Acute (short-term) aquatic toxicity	Category 3
Acute toxicity (oral)	Category 4

GHS label elements
Pictogram:

Signal word: Warning
Hazard statements:
H302 - Harmful if swallowed.
H314 - May causes severe skin burns and eye damage.
H319 - May cause serious eye injury.
H402 - Harmful to aquatic organisms.
Precautionary statements:
P260 - Do not inhale dust.
P264 - Wash your skin thoroughly after use.
P270 - Do not eat, drink or smoke whilst using this product.
P273 - Avoid releasing into the environment.
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 - Dispose of contents/container to an approved waste disposal plant.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P301+P312+P330 - IF SWALLOWED: If you feel unwell, call the emergency services or a doctor. Rinse your mouth.
P301+P330+P331 - IF SWALLOWED: Rinse your mouth. Do not induce vomiting.
P302+P352 - IF CONTACT SKIN: wash thoroughly with water.
P332+P313 - IF SKIN IRRITATION OCCURS: seek medical advice or attention.
P362+P364 - Remove soiled clothing and wash it before wearing it again.
Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration	CAS NO.
PMSF	50-200 mM	329-98-6
Aprotinin	10-100 μ M	9087-70-1
Bestatin	1-50 mM	58970-76-6
E-64	1-30 mM	66701-25-5
Leupeptin	1-20 mM	103476-89-7
Pepstatin	1-20 mM	26305-03-3
DMSO	50-100%	67-68-5

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures:
For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.

Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure
Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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. This SDS does not purport to be all-inclusive.

SAFETY DATA SHEET (SDS)

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

Product Name: 0.4% Trypan Blue Solution
Part NO.: PK10016-K
Chemical Name: Not applicable
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
5500 Pearl Street
STE 400
Rosemont, IL 60018
312-455-8498
proteintech@ptglab.com

Emergency telephone number:
312-455-8498

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Carcinogenicity	Category 1B

GHS label elements
Pictogram:

Signal word: Warning
Hazard statements:
H350 - Possible carcinogen.
Precautionary statements:
P201 - Obtain specific instructions before use.
P280 - Wear safety goggles/Wear a face shield.
P403 - Store in a well-ventilated place.
P501 - Dispose of contents/container to an approved waste disposal plant.
P308+P313 - If you have been exposed or have any concerns: seek medical advice or attend a clinic.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Component	Concentration (%, w/w)	CAS NO.
Trypan blue	0.40%	72-57-1

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. 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 water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed
Potential acute health effects
Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms
Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure
Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary
Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures:

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non- emergency personnel".
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:
Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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 cool, well-ventilated area. Store at -20°C.

Precautions for safe handling:
Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: -20°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:
Occupational exposure limits: Not available
Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures:
Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ -20°C: Solution
Color: clear to amber
Odor: Not available.
Odor threshold: Not available.
pH: 9.0.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Burning time: Not applicable.
Burning rate: Not applicable
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility: Soluble in water or aqueous buffers.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known
Chemical stability: Stable under normal conditions
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No information available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:
Acute toxicity: Not available
Irritation/Corrosion: Not available.
Sensitization: May cause sensitization of susceptible persons.
Mutagenicity: Not available.

Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Teratogenicity: Not available.
Specific target organ toxicity (single exposure): Not available.
Specific target organ toxicity (repeated exposure): Oral - May case damage to kidneys through prolonged or repeated exposure
Aspiration hazard: Not available.
Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: May cause sensitization of susceptible persons.
Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.
Short term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure: Not available.
Potential immediate effects: Not available.
Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons. Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations
This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:
Composition/information on ingredients: No products were found. SARA 304 RQ: Not applicable.

SARA 311/312:
Classification: Not applicable.
Composition/information on ingredients: No products were found. State regulations:
California Prop65: Not listed

International regulations:
EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS
Revision number: 0
Revision: 04/10/2026

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For lab use only, not for diagnostic or therapeutic work.