SAFETY DATA SHEET

ExoC Buffer

Section 1. Identification

Product Identifier: **ExoC Buffer**
Product code: **90205, 90206, 90207, 90210**
Product Type: **Liquid**

Supplier's details:

Norgen Biotek Corporation
3430 Schmon Parkway
Thorold, ON
Canada L2V 4Y6
Tel: (905) 227-8848
Fax: (905) 227-1061
Toll Free: 1-866-667-4362
E-mail: techsupport@norgenbiotek.com

Emergency telephone number (with hours of operation):

CHEMTREC
U.S. & Canada: 1-800-424-9300

Section 2. Hazard Identification

Classification of the Substance or mixture: Not a Hazardous Substance or Mixture

GHS label elements
Hazard Pictograms: No hazard pictogram required.
Signal Word: No signal word required.
Hazard Statements: No hazard statement(s) required

Precautionary statements: No precautionary statement(s) required)
Prevention:
Response:

Section 2. Hazard Identification

Storage: Not applicable.
Disposal: Not applicable.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Other means of identification: Not Applicable

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First-aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact:	In case of contact with eyes, rinse out with water. Remove contact lenses.
Inhalation:	If inhaled, move patient to fresh air.
Skin contact:	In case of skin contact, rinse skin with water. Remove contaminated clothing.
Ingestion:	In case of ingestion, do not induce vomiting. Drink water. Consult a doctor if feeling unwell.

Over-exposure signs/symptoms

Eye contact:	Possible irritation
Inhalation:	Possible cough, possible irritation
Skin contact:	Possible irritation
Ingestion:	Possible stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician:	Not applicable
Specific treatments:	No data available
Protection of first-aiders:	No data available

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media:	For this substance/mixture no limitations of extinguishing agents are given.
Specific hazards arising from the chemical:	Not combustible. Ambient fire may liberate hazardous vapours
Hazardous thermal decomposition products:	None
Special protective actions for fire-fighters:	In the event of fire, wear self-contained breathing apparatus.
Special protective equipment for fire-fighters:	In the event of fire, wear self-contained breathing apparatus.

Section 6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel: Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

For emergency responders: Advice for emergency responders: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures. For personal protection see section 8.

Environmental precautions: No special precautionary measures necessary

Methods and materials for containment and cleaning up

Small spill: Dilute with water. Wipe up with absorbent pad.

Large spill: Observe possible material restrictions (see sections 7 and 10). Take up with liquid absorbent material. Dispose of properly. Clean up affected area.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: For precautions see section 2.

Advice on general occupational hygiene: Wear appropriate PPE (if any) when handling.

Conditions for safe storage, including incompatibilities: No special storage conditions required. Keep tightly closed.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Contains no substances with occupational exposure limit values

Appropriate engineering controls: Not required.

Environmental exposure controls: Not required.

Individual protection measures

Hygiene measures: No data available

Eye/face protection:

Skin protection

Hand protection:	Not required
Body protection:	Not required
Other skin protection:	Not required
Respiratory protection:	Not required

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance:

Physical State:	Liquid
Color:	Clear, colourless
Odor:	Not available.
Odor threshold:	Not available.
pH:	~11
Melting point/ freezing point:	Not applicable.
Boiling point, initial boiling point, and boiling range:	Not available.
Flash point:	Not applicable.
Evaporation rate:	Not available.
Flammability:	Not available.
Lower and upper explosion limit/ flammability limit:	Not available.
Vapor pressure:	Not available.
Relative vapor density:	Not available.
Relative density:	Not available.
Solubility:	Miscible in water.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.

Viscosity: Not available.
Flow time (ISO 2431): Not available.
Particle characteristics
Median particle size: Not applicable.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability: The product is stable.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No specific data.
Incompatible materials: Reactive or incompatible with the following materials; oxidizing materials, acids and alkalis.
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicology information

Information on toxicology effects

Acute toxicity

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

Irritation/Corrosion

To the best of our knowledge, this mixture is not considered an irritant or corrosive.

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure: Most likely routes of exposure are: Inhalation, Ingestion, skin contact. No hazards known for listed routes of exposure

Potential acute health effects

Eye contact: No data available
Inhalation: No data available
Skin contact: No data available
Ingestion: No data available

Symptoms related to the physical, chemical, and toxicological characteristics

Eye contact: No data available
Inhalation: No data available
Skin contact: No data available
Ingestion: No data available

Delayed and immediate effects and chronic effects from short- and long-term exposure

Short term exposure

Potential immediate effects: No data available
Potential delayed effects: No data available

Long term exposure

Potential immediate effects: No data available
Potential delayed effects: No data available

Potential chronic health effects

General: No data available
Carcinogenicity: No data available
Mutagenicity: No data available
Reproductive toxicity: No data available

Numerical measures of toxicity

Acute toxicity estimates

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

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Mobility in soil

Soil/water partition coefficient (K_{OC}): Not available.

Other adverse effects: No known significant effect or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should 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 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. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TGD Classification	DOT Classification (US)	IMGD	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

AERG: Not applicable.

Special precautions for user: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments: Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI: The following components are listed: No listed components

CEPA Toxic substances: None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II, & III Chemicals

Not listed

Montreal Protocol

Not listed

Stockholm Convention on Persistent Organic Pollutants

Not listed

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed

UNECE Aarhus Protocol on POPs and Heavy Metals

Not Listed

Inventory list

Canada: All components are listed or exempted.

Section 16. Other information

History

Date of issue/Date of revision: 09/06/2024

Date of previous issue: 12/15/2021

Version: 03

Prepared by: Norgen Biotek Corp.

Key to abbreviations: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Ait Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
$LogP_{OW}$ = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 (Marpol = marine pollution)
SGG = Segregation Group
UN = United Nations

Procedure used to derive the classification

Classification	Justification
Non-Hazardous	This substance/mixture does not contain hazardous components

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

ExoR Buffer

Section 1. Identification

Product Identifier: **ExoR Buffer**
Product code: **90208**
Product Type: **Liquid**

Supplier's details:
Norgen Biotek Corporation
3430 Schmon Parkway
Thorold, ON
Canada L2V 4Y6
Tel: (905) 227-8848
Fax: (905) 227-1061
Toll Free: 1-866-667-4362
E-mail: techsupport@norgenbiotek.com

Emergency telephone number (with hours of operation):
CHEMTREC
U.S. & Canada: 1-800-424-9300

Section 2. Hazard Identification

Classification of the Substance or mixture: Not a Hazardous Substance or Mixture

GHS label elements
Hazard Pictograms: No hazard pictogram required.
Signal Word: No signal word required.
Hazard Statements: No hazard statement(s) required

Precautionary statements: No precautionary statement(s) required)
Prevention:
Response:

Section 2. Hazard Identification

Storage: Not applicable.
Disposal: Not applicable.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Other means of identification: Not Applicable

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First-aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact:	In case of contact with eyes, rinse out with water. Remove contact lenses.
Inhalation:	If inhaled, move patient to fresh air.
Skin contact:	In case of skin contact, rinse skin with water. Remove contaminated clothing.
Ingestion:	In case of ingestion, do not induce vomiting. Drink water. Consult a doctor if feeling unwell.

Over-exposure signs/symptoms

Eye contact:	Possible irritation
Inhalation:	Possible cough, possible irritation
Skin contact:	Possible irritation
Ingestion:	Possible stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician:	Not applicable
Specific treatments:	No data available
Protection of first-aiders:	No data available

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media:	For this substance/mixture no limitations of extinguishing agents are given.
Specific hazards arising from the chemical:	Not combustible. Ambient fire may liberate hazardous vapours
Hazardous thermal decomposition products:	None
Special protective actions for fire-fighters:	In the event of fire, wear self-contained breathing apparatus.
Special protective equipment for fire-fighters:	In the event of fire, wear self-contained breathing apparatus.

Section 6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel: Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

For emergency responders: Advice for emergency responders: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures. For personal protection see section 8.

Environmental precautions: No special precautionary measures necessary

Methods and materials for containment and cleaning up

Small spill: Dilute with water. Wipe up with absorbent pad.

Large spill: Observe possible material restrictions (see sections 7 and 10). Take up with liquid absorbent material. Dispose of properly. Clean up affected area.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: For precautions see section 2.

Advice on general occupational hygiene: Wear appropriate PPE (if any) when handling.

Conditions for safe storage, including incompatibilities: No special storage conditions required. Keep tightly closed.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Contains no substances with occupational exposure limit values

Appropriate engineering controls: Not required.

Environmental exposure controls: Not required.

Individual protection measures

Hygiene measures: No data available

Eye/face protection:

Skin protection

Hand protection:	Not required
Body protection:	Not required
Other skin protection:	Not required
Respiratory protection:	Not required

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance:

Physical State:	Liquid
Color:	Clear, colourless
Odor:	Not available.
Odor threshold:	Not available.
pH:	6
Melting point/ freezing point:	Not applicable.
Boiling point, initial boiling point, and boiling range:	Not available.
Flash point:	Not applicable.
Evaporation rate:	Not available.
Flammability:	Not available.
Lower and upper explosion limit/ flammability limit:	Not available.
Vapor pressure:	Not available.
Relative vapor density:	Not available.
Relative density:	Not available.
Solubility:	Miscible in water.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.

Viscosity: Not available.
Flow time (ISO 2431): Not available.
Particle characteristics
Median particle size: Not applicable.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability: The product is stable.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No specific data.
Incompatible materials: Reactive or incompatible with the following materials; oxidizing materials, acids and alkalis.
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicology information

Information on toxicology effects

Acute toxicity

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

Irritation/Corrosion

To the best of our knowledge, this mixture is not considered an irritant or corrosive.

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure: Most likely routes of exposure are: Inhalation, Ingestion, skin contact. No hazards known for listed routes of exposure

Potential acute health effects

Eye contact: No data available
Inhalation: No data available
Skin contact: No data available
Ingestion: No data available

Symptoms related to the physical, chemical, and toxicological characteristics

Eye contact: No data available
Inhalation: No data available
Skin contact: No data available
Ingestion: No data available

Delayed and immediate effects and chronic effects from short- and long-term exposure

Short term exposure

Potential immediate effects: No data available
Potential delayed effects: No data available

Long term exposure

Potential immediate effects: No data available
Potential delayed effects: No data available

Potential chronic health effects

General: No data available
Carcinogenicity: No data available
Mutagenicity: No data available
Reproductive toxicity: No data available

Numerical measures of toxicity

Acute toxicity estimates

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

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Mobility in soil

Soil/water partition coefficient (K_{OC}): Not available.

Other adverse effects: No known significant effect or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should 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 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. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TGD Classification	DOT Classification (US)	IMGD	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

AERG: Not applicable.

Special precautions for user: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments: Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI: The following components are listed: No listed components

CEPA Toxic substances: None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II, & III Chemicals

Not listed

Montreal Protocol

Not listed

Stockholm Convention on Persistent Organic Pollutants

Not listed

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed

UNECE Aarhus Protocol on POPs and Heavy Metals

Not Listed

Inventory list

Canada: All components are listed or exempted.

Section 16. Other information

History

Date of issue/Date of revision: 09/06/2024

Date of previous issue: 12/15/2021

Version: 03

Prepared by: Norgen Biotek Corp.

Key to abbreviations: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Ait Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
$LogP_{OW}$ = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 (Marpol = marine pollution)
SGG = Segregation Group
UN = United Nations

Procedure used to derive the classification

Classification	Justification
Non-Hazardous	This substance/mixture does not contain hazardous components

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

Slurry E

Section 1. Identification

Product Identifier: **Slurry E**

Product code: **90204**

Product Type: **Liquid**

Supplier's details:

Norgen Biotek Corporation
3430 Schmon Parkway
Thorold, ON
Canada L2V 4Y6
Tel: (905) 227-8848
Fax: (905) 227-1061
Toll Free: 1-866-667-4362
E-mail: techsupport@norgenbiotek.com

Emergency telephone number (with hours of operation):

CHEMTREC
U.S. & Canada: 1-800-424-9300

Section 2. Hazard Identification

Classification of the Substance or mixture: Not a Hazardous Substance or Mixture

GHS label elements

Hazard Pictograms: No hazard pictogram required.
Signal Word: No signal word required.
Hazard Statements: No hazard statement(s) required

Precautionary statements: No precautionary statement(s) required)
Prevention:
Response:

Section 2. Hazard Identification

Storage: Not applicable.
Disposal: Not applicable.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Other means of identification: Not Applicable

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First-aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact:	In case of contact with eyes, rinse out with water. Remove contact lenses.
Inhalation:	If inhaled, move patient to fresh air.
Skin contact:	In case of skin contact, rinse skin with water. Remove contaminated clothing.
Ingestion:	In case of ingestion, do not induce vomiting. Drink water. Consult a doctor if feeling unwell.

Over-exposure signs/symptoms

Eye contact:	Possible irritation
Inhalation:	Possible cough, possible irritation
Skin contact:	Possible irritation
Ingestion:	Possible stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician:	Not applicable
Specific treatments:	No data available
Protection of first-aiders:	No data available

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media:	For this substance/mixture no limitations of extinguishing agents are given.
Specific hazards arising from the chemical:	Not combustible. Ambient fire may liberate hazardous vapours
Hazardous thermal decomposition products:	None
Special protective actions for fire-fighters:	In the event of fire, wear self-contained breathing apparatus.
Special protective	

equipment for

Section 6. Accidental release measures

fire-fighters: In the event of fire, wear self-contained breathing apparatus.

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel: Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

For emergency responders: Advice for emergency responders: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures. For personal protection see section 8.

Environmental precautions: No special precautionary measures necessary

Methods and materials for containment and cleaning up

Small spill: Dilute with water. Wipe up with absorbent pad.

Large spill: Observe possible material restrictions (see sections 7 and 10). Take up with liquid absorbent material. Dispose of properly. Clean up affected area.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: For precautions see section 2.

Advice on general occupational hygiene: Wear appropriate PPE (if any) when handling.

Conditions for safe storage, including incompatibilities: No special storage conditions required. Keep tightly closed.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Contains no substances with occupational exposure limit values

Appropriate engineering controls: Not required.

Environmental exposure controls: Not required.

Individual protection measures

Hygiene measures: No data available
Eye/face protection:

Skin protection

Hand protection: Not required
Body protection: Not required
Other skin protection: Not required
Respiratory protection: Not required

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance:

Physical State: Liquid
Color: Clear, with black/grey precipitate
Odor: Not available.
Odor threshold: Not available.
pH: 7.4
Melting point/ freezing point: Not applicable.
Boiling point, initial boiling point, and boiling range: Not available.
Flash point: Not applicable.
Evaporation rate: Not available.
Flammability: Not available.
Lower and upper explosion limit/ flammability limit: Not available.
Vapor pressure: Not available.
Relative vapor density: Not available.
Relative density: Not available.
Solubility: Miscible in water.
Partition coefficient: n-octanol/water Not applicable.

Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.
Flow time (ISO 2431): Not available.

Particle characteristics

Median particle size: Not applicable.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability: The product is stable.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No specific data.
Incompatible materials: Reactive or incompatible with the following materials; oxidizing materials, acids and alkalis.
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicology information

Information on toxicology effects

Acute toxicity

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

Irritation/Corrosion

To the best of our knowledge, this mixture is not considered an irritant or corrosive.

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure: Most likely routes of exposure are: Inhalation, Ingestion, skin contact. No hazards known for listed routes of exposure

Potential acute health effects

Eye contact: No data available
Inhalation: No data available
Skin contact: No data available
Ingestion: No data available

Symptoms related to the physical, chemical, and toxicological characteristics

Eye contact: No data available
Inhalation: No data available
Skin contact: No data available
Ingestion: No data available

Delayed and immediate effects and chronic effects from short- and long-term exposure

Short term exposure

Potential immediate effects: No data available
Potential delayed effects: No data available

Long term exposure

Potential immediate effects: No data available
Potential delayed effects: No data available

Potential chronic health effects

General: No data available
Carcinogenicity: No data available

Mutagenicity: No data available

Reproductive toxicity: No data available

Numerical measures of toxicity

Acute toxicity estimates

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

Section 12. Ecological information

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Mobility in soil

Soil/water partition coefficient (K_{OC}): Not available.

Other adverse effects: No known significant effect or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should 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 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. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TGD Classification	DOT Classification (US)	IMGD	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

AERG: Not applicable.

Special precautions for user: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments: Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI: The following components are listed: No listed components

CEPA Toxic substances: None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II, & III Chemicals

Not listed

Montreal Protocol

Not listed

Stockholm Convention on Persistent Organic Pollutants

Not listed

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed

UNECE Aarhus Protocol on POPs and Heavy Metals

Not Listed

Inventory list

Canada: All components are listed or exempted.

Section 16. Other information

History

Date of issue/Date of revision: 09/12/2024

Date of previous issue: 12/15/2021

Version: 03

Prepared by: Norgen Biotek Corp.

Key to abbreviations: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Ait Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
$LogP_{OW}$ = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 (Marpol = marine pollution)
SGG = Segregation Group
UN = United Nations

Procedure used to derive the classification

Classification	Justification
Non-Hazardous	This substance/mixture does not contain hazardous components

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.