



Butorphanol Forensic ELISA Kit

Kit Product

Kit identification

Kit identifier

Product name : Butorphanol Forensic ELISA Kit
Part Number(s) : 101116|101119

Details of the supplier of the Kit safety information sheet

Supplier

Neogen Corporation
620 Leshler Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

Manufacturer

Neogen Corporation
944 Nandino
Lexington, Kentucky 40511
U.S.A.
T 859-254-1221
[NEOGEN.com](https://www.NEOGEN.com)

General information

Restrictions on use : Do not use kit components from one kit with any other kit.
General description : This is a test kit that is comprised of several individual components, listed below, each of which may have its own Safety Data Sheet (SDS). Articles, and otherwise immobilized and inaccessible chemicals, do not have a Safety Data Sheet in this packet.

Kit contents

| Name | «_GHS_CA_CLASSIF\$Text» |
|-------------------------------|--|
| K-Blue Advanced TMB Substrate | Repr. 1B, H360 |
| Butorphanol-HRP Conjugate | Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Acute 3, H402 |
| Negative Control (LS) | Not classified |
| Red Stop Solution | Not classified |
| 10X Wash Buffer | Not classified |
| EIA Buffer | Not classified |
| Butorphanol Positive Control | Not classified |

Transport information

In accordance with TDG / DOT / IMDG / IATA

| DOT | TDG | IMDG | IATA |
|-----------------------------|----------------|----------------|----------------|
| UN number | | | |
| Not regulated for transport | | | |
| Proper Shipping Name | | | |
| Not applicable | Not applicable | Not applicable | Not applicable |

Butorphanol Forensic ELISA Kit

Kit Product

| DOT | TDG | IMDG | IATA |
|--|----------------|----------------|----------------|
| Transport hazard class(es) | | | |
| Not applicable | Not applicable | Not applicable | Not applicable |
| Packing group | | | |
| Not applicable | Not applicable | Not applicable | Not applicable |
| Environmental hazards | | | |
| Not applicable | Not applicable | Not applicable | Not applicable |
| No supplementary information available | | | |

Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : K-Blue® Advanced TMB Substrate
Type of product : Life Sciences -- [Life Sciences]
Product code : 21266

1.2. Other means of identification

Part Number(s) : 21266|27090|319171|319175|319176|319177|319210|319257|319xxx

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals, Scientific research and development
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Supplier's details

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Reproductive toxicity, Category 1B H360 May damage fertility or the unborn child.
Full text of H statements : see section 16

2.2. GHS label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : H360 - May damage fertility or the unborn child

Precautionary statements (GHS CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P308+P313 - IF exposed or concerned: Get medical advice or attention.
P405 - Store locked up.

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P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Chemical name / Synonyms | Product identifier | % | Classification (GHS CA) |
|-----------------|---|--------------------|------------|--------------------------------------|
| 2-Pyrrolidinone | 2-Pyrrolidinone 2-ketopyrrolidine / 2-ketopyrrolidone / 2-oxopyrrolidine / 2-pyrol / 2- pyrrolidinone / 2- pyrrolidon usp / 2- pyrrolidone / 4- aminobutyric acid lactam / alpha- pyrrolidinone / alpha-pyrrolidone / butanoic acid, 4- amino-, lactam / butyrolactam(=2- pyrrolidone) / gamma- aminobutyric acid lactam / gamma- aminobutyric lactam / gamma- aminobutyrolacta m / gamma- butyrolactam / lam / pyrrolidon dest. / pyrrolidone | CAS-No.: 616-45-5 | ≥ 5 – < 10 | Eye Irrit. 2, H319 Repr. 1B, H360 |

Full text of hazard classes and H-statements : see section 16

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

| | |
|---|---|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |
| First-aid measures general | : IF exposed or concerned: Get medical advice/attention. |
| Personal protection for first-aid responders. | : First aid workers will be equipped with suitable personal protective equipment. |

K-Blue® Advanced TMB Substrate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

4.2. Most important symptoms/effects, acute and delayed

| | |
|-------------------------------------|---|
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |
| Chronic symptoms | : May damage fertility or the unborn child. |

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

| | |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|--|--------------------------------|
| Fire hazard | : No fire hazard. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

5.3. Special protective actions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|---------------------------|---|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
| Environmental precautions | : Avoid release to the environment. Notify authorities if product enters sewers or public waters. |

6.2. Methods and materials for containment and cleaning up

| | |
|---|---|
| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. |
| Other information | : Dispose of materials or solid residues at an authorized site. |
| For further information refer to section 13 | |

SECTION 7 Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|--|
| Precautions for safe handling | : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. |
| Hygiene measures | : Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

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according to the Hazardous Products Regulation (WHMIS 2015)

7.2. Conditions for safe storage, including any incompatibilities

| | |
|---------------------|---|
| Technical measures | : Keep in a cool, well-ventilated place away from heat. |
| Storage conditions | : Store locked up. |
| Packaging materials | : Store always product in container of same material as original container. |

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

| | |
|----------------------------------|--|
| Appropriate engineering controls | : Ensure good ventilation of the work station. |
| Environmental exposure controls | : Avoid release to the environment. |

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Liquid |
| Appearance | : No data available |
| Color | : Clear light blue |
| Odor | : Characteristic |
| Odor threshold | : No data available |
| pH | : 3.1 – 3.5 |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : No data available |
| Melting point | : Not applicable |

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Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|---|---------------------|
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : No data available |
| Explosion limits | : No data available |
| Particle characteristics | : No data available |

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : The product is non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : No dangerous reactions known under normal conditions of use. |
| Conditions to avoid | : None under recommended storage and handling conditions (see section 7). |
| Incompatible materials | : No additional information available |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Hardening time: | : No additional information available |

SECTION 11 Toxicological information

11.1. Likely routes of exposure

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

| K-Blue® Advanced TMB Substrate | |
|---------------------------------|--|
| Unknown acute toxicity (GHS CA) | 5.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 5.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 5.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)) |
| 2-Pyrrolidinone (616-45-5) | |
| LD50 oral rat | > 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral)) |
| LD50 dermal rabbit | > 2000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| Skin corrosion/irritation | : Not classified. pH: 3.1 – 3.5 |

| 2-Pyrrolidinone (616-45-5) | |
|-------------------------------|-----------------------------------|
| pH | 8 – 9 (10 %) |
| Serious eye damage/irritation | : Not classified pH: 3.1 – 3.5 |

K-Blue® Advanced TMB Substrate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| 2-Pyrrolidinone (616-45-5) | |
|-----------------------------------|---|
| pH | 8 – 9 (10 %) |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : May damage fertility or the unborn child. |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |

| 2-Pyrrolidinone (616-45-5) | |
|----------------------------|---|
| NOAEL (oral,rat,90 days) | 207 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents) |
| Aspiration hazard | : Not classified |

| 2-Pyrrolidinone (616-45-5) | |
|-------------------------------------|---|
| Viscosity, kinematic | 9.009 mm ² /s |
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |
| Chronic symptoms | : May damage fertility or the unborn child. |

SECTION 12 Ecological information

12.1. Toxicity

| | |
|---|--|
| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified. |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified. |

| 2-Pyrrolidinone (616-45-5) | |
|----------------------------|--|
| LC50 - Fish [1] | 4600 – 10000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value) |
| EC50 - Crustacea [1] | > 500 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value) |
| ErC50 algae | > 500 mg/l (DIN 38412-9, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value) |
| EC50 72h - Algae [1] | > 500 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |

12.2. Persistence and degradability

| K-Blue® Advanced TMB Substrate | |
|---------------------------------|------------------------------------|
| Persistence and degradability | Not rapidly degradable |
| 2-Pyrrolidinone (616-45-5) | |
| Persistence and degradability | Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 1.16 g O ₂ /g substance |

K-Blue® Advanced TMB Substrate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| 2-Pyrrolidinone (616-45-5) | |
|------------------------------|------------------------------------|
| Chemical oxygen demand (COD) | 1.69 g O ₂ /g substance |
| ThOD | 2.44 g O ₂ /g substance |

12.3. Bioaccumulative potential

| 2-Pyrrolidinone (616-45-5) | |
|---|--|
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| BCF - Fish [1] | 3.16 l/kg (BCFBAF v3.00, Fresh water, Calculated value) |
| Partition coefficient n-octanol/water (Log Pow) | -0.71 (Practical experience/observation, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C) |

12.4. Mobility in soil

| 2-Pyrrolidinone (616-45-5) | |
|--|--|
| Mobility in soil | 17 Source: National Library of Medicine/Hazardous Substances Data Bank |
| Ecology - soil | Highly mobile in soil. |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.868 (log Koc, Calculated value) |

12.5. Other adverse effects

| | |
|------------------------------|------------------|
| Ozone | : Not classified |
| Fluorinated greenhouse gases | : No |

SECTION 13 Disposal considerations

| | |
|--|---|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. |
| Additional information | : Do not re-use empty containers. |

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

| TDG | DOT | IMDG | IATA |
|---|---------------|---------------|---------------|
| 14.1. UN Number | | | |
| Not regulated for transport | | | |
| 14.2. UN Proper Shipping Name | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group, if applicable | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |

K-Blue® Advanced TMB Substrate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| TDG | DOT | IMDG | IATA |
|--|---------------|---------------|---------------|
| 14.5. Environmental hazards | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | |

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

2-Pyrrolidinone (616-45-5)

Listed on the Canadian DSL (Domestic Substances List)

2-Pyrrolidinone (616-45-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16 Other Information

Issue date : 06-26-2025

Full text of hazard classes and H-statements:

| | |
|------|--|
| H319 | Causes serious eye irritation |
| H360 | May damage fertility or the unborn child |

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Negative Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 07-08-2025 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : Negative Control
Type of product : Life Sciences -- [Life Sciences]
Product code : 25008

1.2. Other means of identification

Part Number(s) : 25008

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Scientific research and development, Laboratory chemicals
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Supplier's details

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Not classified

2.2. GHS label elements, including precautionary statements

GHS CA labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of schedule 1, item 3 of the Hazardous Products Regulations.

Negative Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

| | |
|---|---|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |
| First-aid measures general | : If you feel unwell, seek medical advice. |
| Personal protection for first-aid responders. | : First aid workers will be equipped with suitable personal protective equipment. |

4.2. Most important symptoms/effects, acute and delayed

| | |
|-------------------------------------|---------------------------------|
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

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

| | |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|--|--------------------------------|
| Fire hazard | : No fire hazard. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

5.3. Special protective actions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|---------------------------|---|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
| Environmental precautions | : Avoid release to the environment. |

6.2. Methods and materials for containment and cleaning up

| | |
|---|---|
| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| Other information | : Dispose of materials or solid residues at an authorized site. |
| For further information refer to section 13 | |

Negative Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep cool. Protect from sunlight.
Packaging materials : Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid

Negative Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|---|---------------------|
| Appearance | : Liquid. |
| Color | : Clear Colorless |
| Odor | : Odorless Slight |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : No data available |
| Explosion limits | : No data available |
| Particle characteristics | : No data available |

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : The product is non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : No dangerous reactions known under normal conditions of use. |
| Conditions to avoid | : None under recommended storage and handling conditions (see section 7). |
| Incompatible materials | : No additional information available |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Hardening time: | : No additional information available |

SECTION 11 Toxicological information

11.1. Likely routes of exposure

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

Negative Control

| | |
|---------------------------------|---|
| Unknown acute toxicity (GHS CA) | 1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)) |
|---------------------------------|---|

| | |
|-----------------------------------|------------------|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |

Negative Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|-------------------------------------|---------------------------------|
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

SECTION 12 Ecological information

12.1. Toxicity

| | |
|---|--|
| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified. |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified. |

12.2. Persistence and degradability

Negative Control

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

| | |
|------------------------------|------------------|
| Ozone | : Not classified |
| Fluorinated greenhouse gases | : No |

SECTION 13 Disposal considerations

| | |
|--|---|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. |
| Additional information | : Do not re-use empty containers. |

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

| TDG | DOT | IMDG | IATA |
|--------------------------------------|---------------|---------------|---------------|
| 14.1. UN Number | | | |
| Not regulated for transport | | | |
| 14.2. UN Proper Shipping Name | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |

Negative Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| TDG | DOT | IMDG | IATA |
|---|---------------|---------------|---------------|
| 14.3. Transport hazard class(es) | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group, if applicable | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | |

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

No additional information available

SECTION 16 Other Information

Issue date : 07-08-2025

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Red Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 06-27-2025 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : Red Stop Solution
Type of product : Life Sciences -- [Life Sciences]
Product code : 301210

1.2. Other means of identification

Part Number(s) : 301210|301471|301473|301474|301475|301476|700006516

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals, Scientific research and development

1.4. Supplier's details

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Not classified

2.2. GHS label elements, including precautionary statements

GHS CA labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of schedule 1, item 3 of the Hazardous Products Regulations.

Red Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

| | |
|---|---|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |
| First-aid measures general | : If you feel unwell, seek medical advice. |
| Personal protection for first-aid responders. | : First aid workers will be equipped with suitable personal protective equipment. |

4.2. Most important symptoms/effects, acute and delayed

| | |
|-------------------------------------|---------------------------------|
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

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

| | |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|--|--------------------------------|
| Fire hazard | : No fire hazard. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

5.3. Special protective actions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|---------------------------|---|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
| Environmental precautions | : Avoid release to the environment. |

6.2. Methods and materials for containment and cleaning up

| | |
|---|---|
| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| Other information | : Dispose of materials or solid residues at an authorized site. |
| For further information refer to section 13 | |

Red Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep cool. Protect from sunlight.
Packaging materials : Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid

Red Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|---|---------------------|
| Appearance | : Liquid. |
| Color | : Red |
| Odor | : Odorless |
| Odor threshold | : No data available |
| pH | : 8.7 |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : No data available |
| Explosion limits | : No data available |
| Particle characteristics | : No data available |

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : The product is non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : No dangerous reactions known under normal conditions of use. |
| Conditions to avoid | : None under recommended storage and handling conditions (see section 7). |
| Incompatible materials | : No additional information available |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Hardening time: | : No additional information available |

SECTION 11 Toxicological information

11.1. Likely routes of exposure

| | |
|-----------------------------------|-----------------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |
| Skin corrosion/irritation | : Not classified pH: 8.7 |
| Serious eye damage/irritation | : Not classified pH: 8.7 |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |

Red Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : None under normal conditions.

SECTION 12 Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute) : Not classified.
Hazardous to the aquatic environment, long-term (chronic) : Not classified.

12.2. Persistence and degradability

| Red Stop Solution | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified
Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

| TDG | DOT | IMDG | IATA |
|---|---------------|---------------|---------------|
| 14.1. UN Number | | | |
| Not regulated for transport | | | |
| 14.2. UN Proper Shipping Name | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |

Red Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| TDG | DOT | IMDG | IATA |
|---|---------------|---------------|---------------|
| 14.4. Packing group, if applicable | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | |

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

Red Stop Solution

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 16 Other Information

Issue date : 06-27-2025

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



10X Wash Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 06-25-2025 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : 10X Wash Buffer
Type of product : Life Sciences -- [Life Sciences]
Product code : 25001

1.2. Other means of identification

Part Number(s) : 25001|25112|27038|301176|301177

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals, Scientific research and development
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Supplier's details

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Not classified

2.2. GHS label elements, including precautionary statements

GHS CA labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of schedule 1, item 3 of the Hazardous Products Regulations.

10X Wash Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

| | |
|---|---|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |
| First-aid measures general | : If you feel unwell, seek medical advice. |
| Personal protection for first-aid responders. | : First aid workers will be equipped with suitable personal protective equipment. |

4.2. Most important symptoms/effects, acute and delayed

| | |
|-------------------------------------|---------------------------------|
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

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

| | |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|--|--------------------------------|
| Fire hazard | : No fire hazard. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

5.3. Special protective actions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|---------------------------|---|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
| Environmental precautions | : Avoid release to the environment. |

6.2. Methods and materials for containment and cleaning up

| | |
|---|---|
| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| Other information | : Dispose of materials or solid residues at an authorized site. |
| For further information refer to section 13 | |

10X Wash Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep cool. Protect from sunlight.
Packaging materials : Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid

10X Wash Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|---|---------------------|
| Appearance | : Liquid. |
| Color | : Clear Colorless |
| Odor | : Odorless Slight |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : No data available |
| Explosion limits | : No data available |
| Particle characteristics | : No data available |

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : The product is non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : No dangerous reactions known under normal conditions of use. |
| Conditions to avoid | : None under recommended storage and handling conditions (see section 7). |
| Incompatible materials | : No additional information available |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Hardening time: | : No additional information available |

SECTION 11 Toxicological information

11.1. Likely routes of exposure

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

| 10X Wash Buffer | |
|---------------------------------|---|
| Unknown acute toxicity (GHS CA) | 1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)) |

| | |
|-----------------------------------|------------------|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |

10X Wash Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|-------------------------------------|---------------------------------|
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

SECTION 12 Ecological information

12.1. Toxicity

| | |
|---|--|
| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified |

12.2. Persistence and degradability

10X Wash Buffer

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

| | |
|------------------------------|------------------|
| Ozone | : Not classified |
| Fluorinated greenhouse gases | : No |

SECTION 13 Disposal considerations

| | |
|--|---|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. |
| Additional information | : Do not re-use empty containers. |

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

| TDG | DOT | IMDG | IATA |
|--------------------------------------|---------------|---------------|---------------|
| 14.1. UN Number | | | |
| Not regulated for transport | | | |
| 14.2. UN Proper Shipping Name | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |

10X Wash Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| TDG | DOT | IMDG | IATA |
|---|---------------|---------------|---------------|
| 14.3. Transport hazard class(es) | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group, if applicable | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | |

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

No additional information available

SECTION 16 Other Information

Issue date : 06-25-2025

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



EIA Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 06-27-2025 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : EIA Buffer
Type of product : Life Sciences -- [Life Sciences]
Product code : 25000

1.2. Other means of identification

Part Number(s) : 25000|25111|21014|21328|301276|301277

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals, Scientific research and development
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Supplier's details

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Not classified

2.2. GHS label elements, including precautionary statements

GHS CA labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of schedule 1, item 3 of the Hazardous Products Regulations.

EIA Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

| | |
|---|---|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |
| First-aid measures general | : If you feel unwell, seek medical advice. |
| Personal protection for first-aid responders. | : First aid workers will be equipped with suitable personal protective equipment. |

4.2. Most important symptoms/effects, acute and delayed

| | |
|-------------------------------------|---------------------------------|
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

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

| | |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|--|--------------------------------|
| Fire hazard | : No fire hazard. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

5.3. Special protective actions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|---------------------------|---|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
| Environmental precautions | : Avoid release to the environment. |

6.2. Methods and materials for containment and cleaning up

| | |
|---|---|
| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| Other information | : Dispose of materials or solid residues at an authorized site. |
| For further information refer to section 13 | |

EIA Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep cool. Protect from sunlight.
Packaging materials : Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid

EIA Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|---|---------------------|
| Appearance | : Liquid. |
| Color | : Clear |
| Odor | : Odorless Slight |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : No data available |
| Explosion limits | : No data available |
| Particle characteristics | : No data available |

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : The product is non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : No dangerous reactions known under normal conditions of use. |
| Conditions to avoid | : None under recommended storage and handling conditions (see section 7). |
| Incompatible materials | : No additional information available |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Hardening time: | : No additional information available |

SECTION 11 Toxicological information

11.1. Likely routes of exposure

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

EIA Buffer

| | |
|---------------------------------|---|
| Unknown acute toxicity (GHS CA) | 1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 1.31% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)) |
|---------------------------------|---|

| | |
|-----------------------------------|------------------|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |

EIA Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|-------------------------------------|---------------------------------|
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

SECTION 12 Ecological information

12.1. Toxicity

| | |
|---|--|
| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified. |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified. |

12.2. Persistence and degradability

EIA Buffer

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

| | |
|------------------------------|------------------|
| Ozone | : Not classified |
| Fluorinated greenhouse gases | : No |

SECTION 13 Disposal considerations

| | |
|--|---|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. |
| Additional information | : Do not re-use empty containers. |

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

| TDG | DOT | IMDG | IATA |
|--------------------------------------|---------------|---------------|---------------|
| 14.1. UN Number | | | |
| Not regulated for transport | | | |
| 14.2. UN Proper Shipping Name | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |

EIA Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| TDG | DOT | IMDG | IATA |
|---|---------------|---------------|---------------|
| 14.3. Transport hazard class(es) | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group, if applicable | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | |

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

No additional information available

SECTION 16 Other Information

Issue date : 06-27-2025

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Butorphanol Positive Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 06-26-2025 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Product name : Butorphanol Positive Control
Type of product : Life Sciences -- [Life Sciences]
Product code : 25320

1.2. Other means of identification

Part Number(s) : 25320

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals, Scientific research and development
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Supplier's details

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Not classified

2.2. GHS label elements, including precautionary statements

GHS CA labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of schedule 1, item 3 of the Hazardous Products Regulations.

Butorphanol Positive Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

| | |
|---|---|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |
| First-aid measures general | : If you feel unwell, seek medical advice. |
| Personal protection for first-aid responders. | : First aid workers will be equipped with suitable personal protective equipment. |

4.2. Most important symptoms/effects, acute and delayed

| | |
|-------------------------------------|---------------------------------|
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

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

| | |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|--|--------------------------------|
| Fire hazard | : No fire hazard. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

5.3. Special protective actions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|---------------------------|---|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
| Environmental precautions | : Avoid release to the environment. |

6.2. Methods and materials for containment and cleaning up

| | |
|---|---|
| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| Other information | : Dispose of materials or solid residues at an authorized site. |
| For further information refer to section 13 | |

Butorphanol Positive Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep cool. Protect from sunlight.
Packaging materials : Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid

Butorphanol Positive Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|---|---------------------|
| Appearance | : No data available |
| Color | : Clear |
| Odor | : Odorless |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : No data available |
| Explosion limits | : No data available |
| Particle characteristics | : No data available |

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : The product is non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : No dangerous reactions known under normal conditions of use. |
| Conditions to avoid | : None under recommended storage and handling conditions (see section 7). |
| Incompatible materials | : No additional information available |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Hardening time: | : No additional information available |

SECTION 11 Toxicological information

11.1. Likely routes of exposure

| | |
|-----------------------------|-------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified. |

Butorphanol Positive Control

| | |
|---------------------------------|--|
| Unknown acute toxicity (GHS CA) | 100% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 100% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 100% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)) |
|---------------------------------|--|

| | |
|-----------------------------------|------------------|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |

Butorphanol Positive Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| | |
|-------------------------------------|---------------------------------|
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

SECTION 12 Ecological information

12.1. Toxicity

| | |
|---|--|
| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified |

12.2. Persistence and degradability

Butorphanol Positive Control

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

| | |
|------------------------------|------------------|
| Ozone | : Not classified |
| Fluorinated greenhouse gases | : No |

SECTION 13 Disposal considerations

| | |
|--|---|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. |
| Additional information | : Do not re-use empty containers. |

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

| TDG | DOT | IMDG | IATA |
|--------------------------------------|---------------|---------------|---------------|
| 14.1. UN Number | | | |
| Not regulated for transport | | | |
| 14.2. UN Proper Shipping Name | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |

Butorphanol Positive Control

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| TDG | DOT | IMDG | IATA |
|---|---------------|---------------|---------------|
| 14.3. Transport hazard class(es) | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group, if applicable | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | |

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

No additional information available

SECTION 16 Other Information

Issue date : 06-26-2025

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Product name : Butorphanol-HRP Conjugate
Type of product : Life Sciences -- [Life Sciences]
Product code : 21083

1.2. Other means of identification

Part Number(s) : 21083|21084

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals, Scientific research and development
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Supplier's details

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

| | | |
|--|------|--|
| Respiratory sensitization, Category 1 | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Skin sensitization, Category 1 | H317 | May cause an allergic skin reaction. |
| Hazardous to the aquatic environment, Acute Hazard, Category 3 | H402 | Harmful to aquatic life. |

Full text of H statements : see section 16

2.2. GHS label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H402 - Harmful to aquatic life

Butorphanol-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Precautionary statements (GHS CA) : P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P284 - Wear respiratory protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or a doctor.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

Butorphanol-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

3.2. Mixtures

| Name | Chemical name / Synonyms | Product identifier | % | Classification (GHS CA) |
|----------------------------|--|--------------------|-----------|---|
| Amphotericin B solubilized | 14,39-dioxabicyclo(33.3.1)nonatriacont-19,21,23,25,27,29,31-heptaene-36-carboxylic acid, 33-((3-amino-3,6-dideoxy-beta-D-mannopyranosyl)oxy)-1,3,5,6,9,11,17,37-octahydroxy-15,16,18-trimethyl-13-oxo-(1R-(1R*,3S*,5R*,6R*,9R*,11R*,15S*,16* / Abelcet / ambisome / amphomoronal / amphi-moronal / amphotericin B / amphozone / B / fungilin / fungisone / fungizone / mysteclin-F / NS 718 / NSC 527017 | CAS-No.: 1397-89-3 | ≥ 1 – < 5 | Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 |

Butorphanol-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

| Name | Chemical name / Synonyms | Product identifier | % | Classification (GHS CA) |
|--------------------|--|--------------------|-------------|---|
| Gentamicin sulfate | Gentamycin sulfate alcomicin / bristagen / cidomycin / duragentam / garamycin / garasol / gentalin / gen optic / genoptic S.O.P. / gentacin / gentak / gentalline / gentalyn / gentamicin c complex sulfate / gentamicin, sulfate (salt) / gentamicinsulfate salt / gentamycin sulfate / gentamytrex ophthiole / genth- ohptal / gentibioptal / genticin / genticycyn / gentiomycin C / gentocin / gentogram / geramycin / getamicin sulfate / GM sulfate / lugacin / nichogencin / NSC-82261 / O-3-deoxy-4-C-methyl-3-(methylamino)-beta-L-arabinopyranosyl-(1-6)-O-(2,6-diamino-2,3,4,6-tetradeoxy-alpha-D-erythrohexopyranosyl-(1-4))-2-deoxy-D-streptomine / ophtagram / pangram / refobacin / refobacin 10 / refobacin L / SCH 9724 / septopal / sulmycin / U-gencin / urocydin | CAS-No.: 1405-41-0 | ≥ 0.5 – < 1 | Resp. Sens. 1, H334 Skin Sens. 1, H317 |

Butorphanol-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Full text of hazard classes and H-statements : see section 16

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

| | |
|---|--|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor. |
| First-aid measures after skin contact | : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |
| First-aid measures general | : Call a poison center/doctor/physician if you feel unwell. |
| Personal protection for first-aid responders. | : First aid workers will be equipped with suitable personal protective equipment. |

4.2. Most important symptoms/effects, acute and delayed

| | |
|-------------------------------------|--|
| Symptoms/effects after inhalation | : May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Symptoms/effects after skin contact | : May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

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

| | |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|--|--------------------------------|
| Fire hazard | : No fire hazard. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

5.3. Special protective actions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|---------------------------|---|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
| Environmental precautions | : Avoid release to the environment. |

6.2. Methods and materials for containment and cleaning up

| | |
|-----------------|---|
| For containment | : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
|-----------------|---|

Butorphanol-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.
For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.
Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep cool. Protect from sunlight.
Packaging materials : Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



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SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Liquid |
| Appearance | : No data available |
| Color | : Amber |
| Odor | : Odorless |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Relative evaporation rate (ether=1) | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Viscosity, kinematic | : No data available |
| Explosion limits | : No data available |
| Particle characteristics | : No data available |

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

| | |
|------------------------------------|--|
| Reactivity | : The product is non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : No dangerous reactions known under normal conditions of use. |
| Conditions to avoid | : None under recommended storage and handling conditions (see section 7). |
| Incompatible materials | : No additional information available |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| Hardening time: | : No additional information available |

SECTION 11 Toxicological information

11.1. Likely routes of exposure

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

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| | |
|---------------------------------|--|
| Unknown acute toxicity (GHS CA) | 49.75% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 49.75% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 49.75% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)) |
|---------------------------------|--|

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| Amphotericin B solubilized (1397-89-3) | |
|--|---|
| LD50 oral rat | > 5000 mg/kg body weight (Rat, Literature study, Oral) |
| Gentamicin sulfate (1405-41-0) | |
| LD50 oral rat | > 5000 mg/kg (Rat, Literature study, Oral) |
| Skin corrosion/irritation | : Not classified |
| Amphotericin B solubilized (1397-89-3) | |
| pH | No data available in the literature |
| Gentamicin sulfate (1405-41-0) | |
| pH | 3.5 – 5.5 (4 %, 20 °C) |
| Serious eye damage/irritation | : Not classified |
| Amphotericin B solubilized (1397-89-3) | |
| pH | No data available in the literature |
| Gentamicin sulfate (1405-41-0) | |
| pH | 3.5 – 5.5 (4 %, 20 °C) |
| Respiratory or skin sensitization | : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| Amphotericin B solubilized (1397-89-3) | |
| STOT-single exposure | May cause respiratory irritation. |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Amphotericin B solubilized (1397-89-3) | |
| Viscosity, kinematic | Not applicable (solid) |
| Gentamicin sulfate (1405-41-0) | |
| Viscosity, kinematic | Not applicable (solid) |
| Symptoms/effects after inhalation | : May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Symptoms/effects after skin contact | : May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

SECTION 12 Ecological information

12.1. Toxicity

| | |
|---|----------------------------|
| Ecology - general | : Harmful to aquatic life. |
| Hazardous to the aquatic environment, short-term (acute) | : Harmful to aquatic life. |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified. |

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12.2. Persistence and degradability

| Butorphanol-HRP Conjugate | |
|--|---|
| Persistence and degradability | Not rapidly degradable |
| Amphotericin B solubilized (1397-89-3) | |
| Persistence and degradability | Not readily biodegradable in water. |
| Gentamicin sulfate (1405-41-0) | |
| Persistence and degradability | Biodegradability in water: no data available. |

12.3. Bioaccumulative potential

| Amphotericin B solubilized (1397-89-3) | |
|---|------------------------------------|
| Bioaccumulative potential | Not bioaccumulative. |
| Partition coefficient n-octanol/water (Log Pow) | -2.8 (Estimated value, KOWWIN) |
| Gentamicin sulfate (1405-41-0) | |
| Bioaccumulative potential | No bioaccumulation data available. |

12.4. Mobility in soil

| Amphotericin B solubilized (1397-89-3) | |
|--|---|
| Surface tension | No data available in the literature |
| Ecology - soil | Adsorbs into the soil. |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 7.858 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Gentamicin sulfate (1405-41-0) | |
| Surface tension | No data available in the literature |
| Ecology - soil | No (test)data on mobility of the substance available. |

12.5. Other adverse effects

| | |
|------------------------------|------------------|
| Ozone | : Not classified |
| Fluorinated greenhouse gases | : No |

SECTION 13 Disposal considerations

| | |
|--|---|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. |
| Additional information | : Do not re-use empty containers. |

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

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| TDG | DOT | IMDG | IATA |
|---|---------------|---------------|---------------|
| 14.1. UN Number | | | |
| Not regulated for transport | | | |
| 14.2. UN Proper Shipping Name | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group, if applicable | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | |

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

Amphotericin B solubilized (1397-89-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Gentamicin sulfate (1405-41-0)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Amphotericin B solubilized (1397-89-3)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Gentamicin sulfate (1405-41-0)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)

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according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 16 Other Information

Issue date : 06-26-2025

| Full text of hazard classes and H-statements: | |
|---|---|
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| H335 | May cause respiratory irritation |
| H402 | Harmful to aquatic life |

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.