



Benzodiazepine Group (RTU) Forensic Kit

Kit Product

Kit identification

Trade name : Benzodiazepine Group (RTU) Forensic Kit
Product code : 130115
Part Number(s) : 130115|130119|130114

Details of the supplier of the Kit safety information sheet

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333

sds@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 classification
K-Blue® Advanced TMB Substrate	Repr. 1B, H360
Benzodiazepine Group-HRP Conjugate	Skin Sens. 1, H317
Acid Stop Solution	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 1A, H350
Human Blood Positive Calibrators - Benzodiazepines	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360 STOT RE 2, H373
Human Blood Negative Calibrators - Benzodiazepines	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360 STOT RE 2, H373
EIA Buffer	Not classified
10X Wash Buffer	Not classified
Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines	Not classified

Benzodiazepine Group (RTU) Forensic Kit

Kit Safety Information Sheet (SIS)

Name	GHS classification
Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines	Not classified

Transport information

In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
UN Number			
Not regulated for transport			
UN Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
Packing group, if applicable			
Not regulated	Not regulated	Not regulated	Not regulated
Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

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

Not applicable



EIA Buffer

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 06-27-2025 Revision date: 08-28-2025 Supersedes: 06-27-2025 Version: 2.0

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.
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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 : Always store 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))
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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
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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
Revision date : 08-28-2025
Supersedes : 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 Revision date: 08-28-2025 Supersedes: 06-25-2025 Version: 2.0

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.
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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 : Always store 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
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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
Revision date : 08-28-2025
Supersedes : 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.

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|319175|319176|319177|319257|319251|319207|319206|319212|319170-W|319171|319174-W|319189|319191|319199|319202|319210-L

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

Manufacturer

Neogen Corporation
620 Leshler 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.

K-Blue® Advanced TMB Substrate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

P308+P313 - IF exposed or concerned: Get medical advice or attention.
P405 - Store locked up.
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.

K-Blue® Advanced TMB Substrate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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.

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.

K-Blue® Advanced TMB Substrate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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.

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 : Always store 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

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Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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

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
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2-Pyrrolidinone (616-45-5)	
pH	8 – 9 (10 %)

K-Blue® Advanced TMB Substrate

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Serious eye damage/irritation : Not classified
pH: 3.1 – 3.5

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.

K-Blue® Advanced TMB Substrate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

2-Pyrrolidinone (616-45-5)	
Biochemical oxygen demand (BOD)	1.16 g O ₂ /g substance
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

Revision date : 08-29-2025

Supersedes : 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.

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Product name : Benzodiazepine Group-HRP Conjugate
Type of product : Life Sciences -- [Life Sciences]
Product code : 21272

1.2. Other means of identification

Part Number(s) : 21272|21446

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)

Skin sensitization, Category 1 H317 May cause an allergic skin reaction.
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) : Warning

Hazard statements (GHS CA) : H317 - May cause an allergic skin reaction
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.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P321 - Specific treatment (see supplemental first aid instruction on this label).

Benzodiazepine Group-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
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

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
StabilZyme SZ02 HRP Conjugate Stabilizer	-	-	≥ 15 – < 25	Skin Sens. 1, H317

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. 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 : 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 : 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.

Benzodiazepine Group-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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.

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 : Always store 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.

Benzodiazepine Group-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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
Appearance	: No data available
Color	: Clear Yellow
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	: No data available
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

Benzodiazepine Group-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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

Benzodiazepine Group-HRP Conjugate	
Unknown acute toxicity (GHS CA)	20% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 20% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 20% 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	: May cause an allergic skin reaction.
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
Symptoms/effects after inhalation	: None under normal conditions.
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	: 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

Benzodiazepine Group-HRP Conjugate	
Persistence and degradability	Not rapidly degradable

StabilZyme SZ02 HRP Conjugate Stabilizer	
Persistence and degradability	Not rapidly degradable

Benzodiazepine Group-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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
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

Benzodiazepine Group-HRP Conjugate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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

Not applicable

SECTION 15 Regulatory information

StabilZyme SZ02 HRP Conjugate Stabilizer

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

SECTION 16 Other Information

Issue date : 06-26-2025

Full text of hazard classes and H-statements:

H317	May cause an allergic skin reaction
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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
Trade name : Acid Stop Solution
Type of product : Life Sciences -- [Life Sciences]
Product code : 21336

1.2. Other means of identification

Part Number(s) : 21336|27044|27045|27046|301576|301577

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 Leshler 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)

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Carcinogenicity, Category 1A	H350	May cause cancer.

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) : H315 - Causes skin irritation
H319 - Causes serious eye irritation
H350 - May cause cancer.

Precautionary statements (GHS CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.

Acid Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice or attention.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P405 - Store locked up.
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)
Sulfuric acid	Sulfuric acid battery acid / BOV / brown acid / brown oil of vitriol / dihydrogen sulfate / dipping acid / electrolyte acid / hydrogensulfate / matting acid / mattling acid / nordhausen acid / oil of vitriol / sulfate of hydrogen / sulfuric acid, anhydrous / sulfuric-acid- / sulphuric acid / vitriol / vitriol, brown oil	CAS-No.: 7664-93-9	≥ 1 – < 5	Met. Corr. 1, H290 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Corr. 1, H314 Eye Dam. 1, H318 Carc. 1A, H350 Aquatic Acute 3, H402 Aquatic Chronic 1, H410

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.

Acid Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
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.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.
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.
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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.	

Acid 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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact with skin and eyes.
- Hygiene measures : Separate working clothes from town clothes. Launder separately. 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 : Store locked up.
- Packaging materials : Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Sulfuric acid (7664-93-9)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Sulphuric acid
OEL TWA	1 mg/m ³
OEL STEL	3 mg/m ³
Notations and remarks	Carcinogenicity A2
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Sulfuric acid
VECD (OEL STEV)	3 mg/m ³ Thord
VEMP (OEL TWAEV)	0.2 mg/m ³ Thord
Notations and remarks	RP, EM (C2 for strong acid mist)
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Sulfuric acid
OEL TWA	0.2 mg/m ³ Thoracic. (M) - refers to sulfuric acid contained in strong inorganic acid mists
Notations and remarks	ACGIH Carcinogenicity category A2; IARC group 1 carcinogen
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Sulfuric acid
OEL TWA	0.2 mg/m ³ (T - Thoracic particulate matter)

Acid Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Sulfuric acid (7664-93-9)	
Notations and remarks	TLV® Basis: Mucostasis; Pulm func. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (New Brunswick) - Occupational Exposure Limits	
Local name	Sulfuric acid
OEL TWA	0.2 mg/m ³
Notations and remarks	Pulm func
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Sulfuric acid
OEL TWA	0.2 mg/m ³ (T - Thoracic particulate matter)
Notations and remarks	TLV® Basis: Mucostasis; Pulm func. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Sulfuric acid
OEL TWA	0.2 mg/m ³ (T - Thoracic particulate matter)
Notations and remarks	TLV® Basis: Mucostasis; Pulm func. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Sulphuric acid
OEL TWA	0.2 mg/m ³ (thoracic fraction)
OEL STEL	0.6 mg/m ³ (thoracic fraction)
Notations and remarks	Designated substance, strong acid mists only
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Sulphuric acid
OEL TWA	0.2 mg/m ³ (thoracic fraction)
OEL STEL	0.6 mg/m ³ (thoracic fraction)
Notations and remarks	Designated substance, strong acid mists only
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Sulfuric acid
OEL TWAEV	0.2 mg/m ³ (T - Thoracic fraction)
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Control of exposure to biological or chemical agents
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Sulfuric acid
OEL TWA	0.2 mg/m ³ (T - Thoracic particulate matter)
Notations and remarks	TLV® Basis: Mucostasis; Pulm func. Notations: A2 (Suspected Human Carcinogen)

Acid Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Sulfuric acid (7664-93-9)	
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Sulphuric acid
OEL TWA	0.2 mg/m ³ (thoracic fraction)
OEL STEL	0.6 mg/m ³ (thoracic fraction)
Notations and remarks	Designated Chemical Substance (strong acid mist only)
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

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 : Liquid.
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

Acid Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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

Acid Stop Solution	
Unknown acute toxicity (GHS CA)	2.78% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
Sulfuric acid (7664-93-9)	
LD50 oral rat	2140 mg/kg body weight (Rat, Experimental value, Oral, 14 day(s))
LD50 oral	2140 mg/kg
LC50 Inhalation - Rat	0.375 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	0.375 mg/l/4h
LC50 Inhalation - Rat (Vapors)	0.375 mg/l/4h
ATE CA (oral)	2140 mg/kg body weight
ATE CA (Gases)	100 ppmV/4h
ATE CA (vapors)	0.375 mg/l/4h
ATE CA (dust,mist)	0.375 mg/l/4h

Acid Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Skin corrosion/irritation : Causes skin irritation.

Sulfuric acid (7664-93-9)	
pH	0.3 Source: HSDB

Serious eye damage/irritation : Causes serious eye irritation.

Sulfuric acid (7664-93-9)	
pH	0.3 Source: HSDB

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : May cause cancer.

Sulfuric acid (7664-93-9)	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Sulfuric acid (7664-93-9)	
Viscosity, kinematic	12.228 mm ² /s

Symptoms/effects after inhalation : None under normal conditions.

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Eye irritation.

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

Sulfuric acid (7664-93-9)	
LC50 - Fish [1]	16 – 28 mg/l (96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Lethal)
ErC50 algae	> 100 mg/l
NOEC chronic fish	0.025 mg/l
NOEC (chronic)	0.15 mg/l Test organisms (species): other:
NOEC chronic crustacea	0.15 mg/l

12.2. Persistence and degradability

Acid Stop Solution	
Persistence and degradability	Not rapidly degradable

Acid Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Sulfuric acid (7664-93-9)	
Persistence and degradability	Biodegradability: not applicable.
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Sulfuric acid (7664-93-9)	
Bioaccumulative potential	Not bioaccumulative.
Partition coefficient n-octanol/water (Log Pow)	-2.2 (Estimated value)

12.4. Mobility in soil

Sulfuric acid (7664-93-9)	
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

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			

Acid Stop Solution

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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

Sulfuric acid (7664-93-9)

Listed on the Canadian DSL (Domestic Substances List)

Canada DSL & NDSL Flags

Significant New Activity (SNAc) provisions of the Act apply

Sulfuric acid (7664-93-9)

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 : 06-25-2025

Revision date : 08-28-2025

Supersedes : 06-25-2025

Full text of hazard classes and H-statements:

H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H350	May cause cancer.
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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.



Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines

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
Product name : Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines
Type of product : Life Sciences -- [Life Sciences]
Product code : 26102

1.2. Other means of identification

Part Number(s) : 26102

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

Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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.

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.
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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.

Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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. 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 : Always store 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):



Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
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

Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines

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))
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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified

Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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
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

Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines

Persistence and degradability	Not rapidly degradable
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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

Oral Fluid/Human Urine Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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

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.



Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines

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
Product name : Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines
Type of product : Life Sciences -- [Life Sciences]
Product code : 26102

1.2. Other means of identification

Part Number(s) : 26102

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

Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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.

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.
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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.

Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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. 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 : Always store 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):



Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
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

Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines

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))
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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified

Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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
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

Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines

Persistence and degradability	Not rapidly degradable
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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

Oral Fluid/Human Urine Negative Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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

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.



Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 07-01-2025 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Product name : Human Blood Positive Calibrators - Benzodiazepines
Type of product : Life Sciences -- [Life Sciences]
Product code : 26102

1.2. Other means of identification

Part Number(s) : 26102

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)

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Reproductive toxicity, Category 1B	H360	May damage fertility or the unborn child.
Specific target organ toxicity, Repeated exposure, Category 2	H373	May cause damage to organs through prolonged or repeated exposure.

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) : H315 - Causes skin irritation
H319 - Causes serious eye irritation

Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Precautionary statements (GHS CA)

H360 - May damage fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure.
: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust, fume, gas, mist, vapors, spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice or attention.
P314 - Get medical advice or attention if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P405 - Store locked up.
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

Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
N-Methyl-2-pyrrolidinone	N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone 1-methyl-2-oxopyrrolidine / 1-methyl-2-pyrrolidinone / 1-methyl-2-pyrrolidone / 1-methyl-5-pyrrolidinone / 1-methyl-5-pyrrolidone / 1-methyl-alpha-pyrrolidinone / 1-methylazacyclopentan-2-one / 1-methyl-gamma-butyrolactam / 1-methylpyrrolid-2-one / 1-methylpyrrolidinone / 1-methylpyrrolidone / 1-methylpyrrolidone-2 / 2-Pyrrolidinone, 1-methyl- / methyl-alpha-pyrrolidone, normal / methylpyrrolidone, N- / N-methyl-2-pyrrolidinone / N-methyl-2-pyrrolidone / N-methyl-alpha-pyrrolidinone / N-methyl-alpha-pyrrolidone / N-methyl-gamma-butyrolactam / N-methylpyrrolidinone / N-methylpyrrolidone / N-methylpyrrolidone (NMP) / NMP (=N-methyl-2-pyrrolidone)	CAS-No.: 872-50-4	≥ 15 – < 25	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360 STOT SE 3, H335 STOT RE 2, H373

Human Blood Positive Calibrators - Benzodiazepines

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.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
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.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.
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.
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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.
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Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

- 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. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
- Hygiene measures : Separate working clothes from town clothes. Launder separately. 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 : Store locked up.
- Packaging materials : Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

N-Methyl-2-pyrrolidinone (872-50-4)

Canada (Ontario) - Occupational Exposure Limits

Local name	N-Methyl-2-pyrrolidone
OEL TWAEV	400 mg/m ³
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Ontario table of occupational exposure limits

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

Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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
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	: No data available
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

Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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

Human Blood Positive Calibrators - Benzodiazepines

Unknown acute toxicity (GHS CA)	1.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 1.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 1.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
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N-Methyl-2-pyrrolidinone (872-50-4)

LD50 oral rat	4150 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	3500 mg/kg
LD50 dermal rat	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal	6000 mg/kg
LC50 Inhalation - Rat	> 5.1 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
LC50 Inhalation - Rat (Dust/Mist)	5.1 mg/l/4h
LC50 Inhalation - Rat (Vapors)	> 5.1 mg/l/4h
ATE CA (oral)	3500 mg/kg body weight
ATE CA (Dermal)	6000 mg/kg body weight
ATE CA (dust,mist)	5.1 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

N-Methyl-2-pyrrolidinone (872-50-4)

pH	No data available in the literature
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Serious eye damage/irritation : Causes serious eye irritation.

N-Methyl-2-pyrrolidinone (872-50-4)

pH	No data available in the literature
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Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

N-Methyl-2-pyrrolidinone (872-50-4)

NOAEL (chronic,oral,animal/male,2 years)	≈ 89 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity)
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NOAEL (chronic,oral,animal/female,2 years)	≈ 221 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity)
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Reproductive toxicity : May damage fertility or the unborn child.

N-Methyl-2-pyrrolidinone (872-50-4)

LOAEL (animal/female, F0/P)	500 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
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Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

N-Methyl-2-pyrrolidinone (872-50-4)	
NOAEL (animal/male, F0/P)	≥ 500 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
NOAEL (animal/female, F0/P)	350 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

STOT-single exposure : Not classified

N-Methyl-2-pyrrolidinone (872-50-4)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

N-Methyl-2-pyrrolidinone (872-50-4)	
LOAEL (dermal,rat/rabbit,90 days)	1653 mg/kg body weight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEL (oral,rat,28 days)	820 mg/kg bw/day
NOAEL (dermal,rat/rabbit,28 days)	< 413 mg/kg bw/day
NOAEC (inhalation, rat, 28 days)	0.1 mg/l
NOAEL (oral,rat,90 days)	169 mg/kg bw/day
NOAEL (dermal,rat/rabbit,90 days)	826 mg/kg body weight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEC (inhalation, rat, 90 days)	0.5 mg/l
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

N-Methyl-2-pyrrolidinone (872-50-4)	
Viscosity, kinematic	No data available in the literature

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Eye irritation.
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.

N-Methyl-2-pyrrolidinone (872-50-4)	
LC50 - Fish [1]	> 500 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 1000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Lethal)

Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

N-Methyl-2-pyrrolidinone (872-50-4)	
ErC50 algae	600.5 mg/l (DIN 38412-9, 72 h, Desmodemus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	600.5 mg/l Test organisms (species): Desmodemus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	672.8 mg/l Test organisms (species): Desmodemus subspicatus (previous name: Scenedesmus subspicatus)
NOEC (chronic)	12.5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	12.5 mg/l
LOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

Human Blood Positive Calibrators - Benzodiazepines	
Persistence and degradability	Not rapidly degradable

N-Methyl-2-pyrrolidinone (872-50-4)	
Persistence and degradability	Readily biodegradable in the soil, Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.07 g O ₂ /g substance
Chemical oxygen demand (COD)	1.56 g O ₂ /g substance
ThOD	1.9 g O ₂ /g substance

12.3. Bioaccumulative potential

N-Methyl-2-pyrrolidinone (872-50-4)	
Bioaccumulative potential	Not bioaccumulative.
BCF - Fish [1]	3.16 l/kg
Partition coefficient n-octanol/water (Log Pow)	-0.46 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)

12.4. Mobility in soil

N-Methyl-2-pyrrolidinone (872-50-4)	
Surface tension	No data available in the literature
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.87 (log Koc, SRC PCKOCWIN v2.0, QSAR)

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.

Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

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
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

N-Methyl-2-pyrrolidinone (872-50-4)

Listed on the Canadian DSL (Domestic Substances List)

N-Methyl-2-pyrrolidinone (872-50-4)

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

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Human Blood Positive Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

SECTION 16 Other Information

Issue date : 07-01-2025

Full text of hazard classes and H-statements:	
H227	Combustible liquid
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure.

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	: Human Blood Negative Calibrators - Benzodiazepines
Type of product	: Life Sciences -- [Life Sciences]
Product code	: 26102

1.2. Other means of identification

Part Number(s) : 26102

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)

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Reproductive toxicity, Category 1B	H360	May damage fertility or the unborn child.
Specific target organ toxicity, Repeated exposure, Category 2	H373	May cause damage to organs through prolonged or repeated exposure.

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) : H315 - Causes skin irritation
H319 - Causes serious eye irritation

Human Blood Negative Calibrators - Benzodiazepines

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Precautionary statements (GHS CA)

H360 - May damage fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure.
: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust, fume, gas, mist, vapors, spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice or attention.
P314 - Get medical advice or attention if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P405 - Store locked up.
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

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according to the Hazardous Products Regulation (WHMIS 2015)

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
N-Methyl-2-pyrrolidinone	N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone 1-methyl-2-oxopyrrolidine / 1-methyl-2-pyrrolidinone / 1-methyl-2-pyrrolidone / 1-methyl-5-pyrrolidinone / 1-methyl-5-pyrrolidone / 1-methyl-alpha-pyrrolidinone / 1-methylazacyclopentan-2-one / 1-methyl-gamma-butyrolactam / 1-methylpyrrolid-2-one / 1-methylpyrrolidinone / 1-methylpyrrolidone / 1-methylpyrrolidone-2 / 2-Pyrrolidinone, 1-methyl- / methyl-alpha-pyrrolidone, normal / methylpyrrolidone, N- / N-methyl-2-pyrrolidinone / N-methyl-2-pyrrolidone / N-methyl-alpha-pyrrolidinone / N-methyl-alpha-pyrrolidone / N-methyl-gamma-butyrolactam / N-methylpyrrolidinone / N-methylpyrrolidone / N-methylpyrrolidone (NMP) / NMP (=N-methyl-2-pyrrolidone)	CAS-No.: 872-50-4	≥ 15 – < 25	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360 STOT SE 3, H335 STOT RE 2, H373

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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. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
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.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.
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.
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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.
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- 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. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
- Hygiene measures : Separate working clothes from town clothes. Launder separately. 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 : Store locked up.
- Packaging materials : Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

N-Methyl-2-pyrrolidinone (872-50-4)

Canada (Ontario) - Occupational Exposure Limits

Local name	N-Methyl-2-pyrrolidone
OEL TWAEV	400 mg/m ³
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Ontario table of occupational exposure limits

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

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according to the Hazardous Products Regulation (WHMIS 2015)

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
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	: No data available
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

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according to the Hazardous Products Regulation (WHMIS 2015)

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)	1.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 1.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 1.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
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N-Methyl-2-pyrrolidinone (872-50-4)

LD50 oral rat	4150 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	3500 mg/kg
LD50 dermal rat	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal	6000 mg/kg
LC50 Inhalation - Rat	> 5.1 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
LC50 Inhalation - Rat (Dust/Mist)	5.1 mg/l/4h
LC50 Inhalation - Rat (Vapors)	> 5.1 mg/l/4h
ATE CA (oral)	3500 mg/kg body weight
ATE CA (Dermal)	6000 mg/kg body weight
ATE CA (dust,mist)	5.1 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

N-Methyl-2-pyrrolidinone (872-50-4)

pH	No data available in the literature
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Serious eye damage/irritation : Causes serious eye irritation.

N-Methyl-2-pyrrolidinone (872-50-4)

pH	No data available in the literature
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Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

N-Methyl-2-pyrrolidinone (872-50-4)

NOAEL (chronic,oral,animal/male,2 years)	≈ 89 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity)
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NOAEL (chronic,oral,animal/female,2 years)	≈ 221 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity)
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Reproductive toxicity : May damage fertility or the unborn child.

N-Methyl-2-pyrrolidinone (872-50-4)

LOAEL (animal/female, F0/P)	500 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
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according to the Hazardous Products Regulation (WHMIS 2015)

N-Methyl-2-pyrrolidinone (872-50-4)	
NOAEL (animal/male, F0/P)	≥ 500 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
NOAEL (animal/female, F0/P)	350 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

STOT-single exposure : Not classified

N-Methyl-2-pyrrolidinone (872-50-4)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

N-Methyl-2-pyrrolidinone (872-50-4)	
LOAEL (dermal, rat/rabbit, 90 days)	1653 mg/kg body weight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEL (oral, rat, 28 days)	820 mg/kg bw/day
NOAEL (dermal, rat/rabbit, 28 days)	< 413 mg/kg bw/day
NOAEC (inhalation, rat, 28 days)	0.1 mg/l
NOAEL (oral, rat, 90 days)	169 mg/kg bw/day
NOAEL (dermal, rat/rabbit, 90 days)	826 mg/kg body weight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEC (inhalation, rat, 90 days)	0.5 mg/l
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

N-Methyl-2-pyrrolidinone (872-50-4)	
Viscosity, kinematic	No data available in the literature

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Eye irritation.
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.

N-Methyl-2-pyrrolidinone (872-50-4)	
LC50 - Fish [1]	> 500 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 1000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Lethal)

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according to the Hazardous Products Regulation (WHMIS 2015)

N-Methyl-2-pyrrolidinone (872-50-4)	
ErC50 algae	600.5 mg/l (DIN 38412-9, 72 h, Desmodemus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	600.5 mg/l Test organisms (species): Desmodemus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	672.8 mg/l Test organisms (species): Desmodemus subspicatus (previous name: Scenedesmus subspicatus)
NOEC (chronic)	12.5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	12.5 mg/l
LOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

Human Blood Negative Calibrators - Benzodiazepines	
Persistence and degradability	Not rapidly degradable

N-Methyl-2-pyrrolidinone (872-50-4)	
Persistence and degradability	Readily biodegradable in the soil, Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.07 g O ₂ /g substance
Chemical oxygen demand (COD)	1.56 g O ₂ /g substance
ThOD	1.9 g O ₂ /g substance

12.3. Bioaccumulative potential

N-Methyl-2-pyrrolidinone (872-50-4)	
Bioaccumulative potential	Not bioaccumulative.
BCF - Fish [1]	3.16 l/kg
Partition coefficient n-octanol/water (Log Pow)	-0.46 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)

12.4. Mobility in soil

N-Methyl-2-pyrrolidinone (872-50-4)	
Surface tension	No data available in the literature
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.87 (log Koc, SRC PCKOCWIN v2.0, QSAR)

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.

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according to the Hazardous Products Regulation (WHMIS 2015)

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
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

N-Methyl-2-pyrrolidinone (872-50-4)

Listed on the Canadian DSL (Domestic Substances List)

N-Methyl-2-pyrrolidinone (872-50-4)

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

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 : 07-01-2025

Full text of hazard classes and H-statements:	
H227	Combustible liquid
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure.

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.