



Neogen® Molecular Detection Assay 2, E. coli O157 (including H7)

Kit Product

Kit identification

Trade name : Neogen® Molecular Detection Assay 2, E. coli O157 (including H7)
Product code : MDA2ECO96
Part Number(s) : 700002229|MDA2ECO96

Details of the supplier of the Kit safety information sheet

Neogen Corporation
620 Leshler Place Lansing 48912 Michigan 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
E.coli Reagent Pack	Skin Sens. 1, H317
Reagent Control Pack	Not classified
Lysis Buffer	Not classified

Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
UN number		
Not regulated for transport		
Proper Shipping Name		
Not regulated	Not regulated	Not regulated
Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
Packing group		
Not regulated	Not regulated	Not regulated
Environmental hazards		
Not regulated	Not regulated	Not regulated

Neogen® Molecular Detection Assay 2, E. coli O157 (including H7)

Kit Safety Information Sheet (SIS)

IMDG	IATA	UNRTDG
No supplementary information available		

Special precautions for user

UN RTDG

Not regulated

IMDG

Not regulated

IATA

Not regulated

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

Not applicable



Reagent Control Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual
Issue date: 26/08/2025 Revision date: 03/06/2026 Supersedes: 03/10/2025 Version: 6.0



Reagent Control Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual
Issue date: 26/08/2025 Revision date: 03/06/2026 Supersedes: 03/10/2025 Version: 6.0

SECTION 1: Identification

1.1. Product identifier

Trade name : Reagent Control Pack
Name : MDA2-Reagent Control Pack
Product code : 400001343

1.2. Other means of identification

Part Number(s) : 400001343

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Scientific research and development, Laboratory chemicals
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Details of the supplier of the safety data sheet

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

1.5. Emergency telephone 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: Hazards identification

2.1. Classification of the substance or mixture

Not classified

2.2. Label elements

No additional information available

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS PH classification
Excipient	-	≥ 90	Not classified
Excipient	-	≥ 5 – < 10	Not classified
DNA Potassium Salt	CAS-No.: 9007-49-2	≥ 0.5 – < 1	Not classified
Excipient	-	< 0.1	Not classified

Reagent Control Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
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.
Personal protection for first-aid responders.	: First-aiders should consider self-protection and use the recommended personal protective equipment (see section 8).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact	: None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Symptoms/effects after eye contact	: None under normal conditions. Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

5.3. Advice for firefighters

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	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel.

Reagent Control Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up : Mechanically recover the product.

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

Exposure limit values of other components

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

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

Reagent Control Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

Personal protective equipment symbol(s):



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Pellet.
Color	: White
Odor	: Odorless
Odor threshold	: No data available
pH	: 7
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability	: Non flammable
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: Not applicable
Explosion limits	: Not applicable
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

9.2. Other information

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

SECTION 11: Toxicological information

11.1. Acute toxicity

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

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Excipient	
LD50 oral rat	100000 mg/kg (Rat, Oral)
LD50 dermal rat	> 12000 mg/kg (Rat, Dermal)

Excipient	
LD50 oral rat	4600 mg/kg (Rat, Oral)
Skin corrosion/irritation	: Not classified pH: 7
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Excipient	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified

Reagent Control Pack	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Ecotoxicity

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

Excipient	
LC50 - Fish [1]	> 10000 mg/l (96 h, Leuciscus idus)
EC50 96h - Algae [1]	162000 mg/l Source: Ecological Structure Activity Relationships
Partition coefficient n-octanol/water (Log Pow)	0.29 Source: Quantitative Structure Activity Relation

DNA Potassium Salt (9007-49-2)	
LC50 - Fish [1]	873000 mg/l Source: EPISUITE
EC50 - Crustacea [1]	22463.928 mg/l Source: EPISUITE
EC50 96h - Algae [1]	1125.24 mg/l Source: EPISUITE
Partition coefficient n-octanol/water (Log Pow)	-4.61 Source: EPISUITE, estimate

12.2. Persistence and degradability

Reagent Control Pack	
Persistence and degradability	Not rapidly degradable

Excipient	
Persistence and degradability	Not readily biodegradable in water.

Reagent Control Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

DNA Potassium Salt (9007-49-2)	
Persistence and degradability	Biodegradability in water: no data available.
Excipient	
Persistence and degradability	Not rapidly degradable
Excipient	
Persistence and degradability	Biodegradability in soil: no data available.

12.3. Bioaccumulative potential

Reagent Control Pack	
Bioaccumulative potential	No additional information available
Excipient	
Partition coefficient n-octanol/water (Log Pow)	0.29 Source: Quantitative Structure Activity Relation
Bioaccumulative potential	No bioaccumulation data available.
DNA Potassium Salt (9007-49-2)	
Partition coefficient n-octanol/water (Log Pow)	-4.61 Source: EPISUITE, estimate
Bioaccumulative potential	No bioaccumulation data available.
Excipient	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Reagent Control Pack	
Mobility in soil	No additional information available
Excipient	
Partition coefficient n-octanol/water (Log Pow)	0.29 Source: Quantitative Structure Activity Relation
DNA Potassium Salt (9007-49-2)	
Mobility in soil	0.002082
Partition coefficient n-octanol/water (Log Pow)	-4.61 Source: EPISUITE, estimate
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

SECTION 13: Disposal considerations

Ecological waste information	: The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

Reagent Control Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not regulated for transport		
14.2. Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

UN RTDG

Not regulated

IMDG

Not regulated

IATA

Not regulated

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

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Priority Chemical List (PCL) and Chemical Control Orders (CCO)		
Initial List of Single Substances and Compounds Covered under Chemical Control Order (CCO) and Priority Chemical List (PCL) DENR Administrative Order 2015-09	Not applicable	
Priority Chemical List DENR Administrative Order 2005-27	Not applicable	
Chemical Control Orders	Not applicable	
Chemical Control Order for Ozone Depleting Substances	Not applicable	

Others

Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Applicable	Excipient
Controlled Chemical for Manufacture of Explosives or Explosives Ingredients Presidential Decree No.1866	Not applicable	
Comprehensive Dangerous Drugs Act of 2002	Not applicable	

Reagent Control Pack

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Others		
Fertilizers and Pesticides Regulation (Decree No. 1144)	Not applicable	
Food Additives Regulation	Not applicable	
Management of Hazardous Waste (Republic Act No. 6969)	Not applicable	
Philippines Clean Air Act	Not applicable	
High Volume Chemicals List	Not applicable	

15.2. International regulations

No additional information available

SECTION 16: Other information

Version : 6.0
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Supersedes : 03/10/2025

Safety Data Sheet (SDS), Philippines

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.



Lysis Buffer

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual
Issue date: 26/08/2025 Revision date: 03/06/2026 Supersedes: 03/10/2025 Version: 4.0

SECTION 1: Identification

1.1. Product identifier

Trade name : Lysis Buffer
Name : MDA2-Lysis Buffer
Product code : 400001270

1.2. Other means of identification

Part Number(s) : 400001270

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Scientific research and development, Laboratory chemicals
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Details of the supplier of the safety data sheet

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

1.5. Emergency telephone 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: Hazards identification

2.1. Classification of the substance or mixture

Not classified

2.2. Label elements

No additional information available

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS PH classification
Potassium chloride	CAS-No.: 7447-40-7	≥ 0.1 – < 0.5	Not classified
Ammonium sulfate	CAS-No.: 7783-20-2	≥ 0.1 – < 0.5	Not classified
Polyvinylpyrrolidone	CAS-No.: 9003-39-8	< 0.1	Not classified
Neutralizing Compound	-	< 0.1	Skin Irrit. 2, H315
Polyethylene octylphenyl ether	CAS-No.: 9002-93-1	< 0.1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411

Lysis Buffer

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

Name	Product identifier	%	GHS PH classification
2-Methyl-4-isothiazolin-3-one	CAS-No.: 2682-20-4	< 0.1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Neutralizing Compound	-	< 0.1	Eye Irrit. 2A, H319 STOT SE 3, H335
Acetic acid	CAS-No.: 64-19-7	< 0.1	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312
Cresol red sodium salt	CAS-No.: 62625-29-0	< 0.1	Not classified
Neutralizing Compound	-	< 0.1	Not classified
Neutralizing Compound	-	< 0.1	Acute Tox. 4 (Inhalation:dust,mist), H332

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
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.
Personal protection for first-aid responders.	: First-aiders should consider self-protection and use the recommended personal protective equipment (see section 8).

4.2. Most important symptoms and effects, both 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 any immediate medical attention and special treatment needed

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

Lysis Buffer

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

5.3. Advice for firefighters

- 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.

6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material 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.

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

Acetic acid (64-19-7)	
Philippines - Occupational Exposure Limits	
Local name	Acetic Acid
OEL TWA	25 mg/m ³
	10 ppm
Regulatory reference	Occupational Safety And Health Standards Philippines

Exposure limit values of other components

No additional information available

Lysis Buffer

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

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):



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Color	: Amber
Odor	: Unpleasant odor
Odor threshold	: No data available
pH	: 7
Relative evaporation rate (butyl acetate=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	: Non flammable
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: No data available

Lysis Buffer

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

Viscosity, kinematic	: No data available
Explosion limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

9.2. Other information

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

SECTION 11: Toxicological information

11.1. Acute toxicity

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

Potassium chloride (7447-40-7)	
LD50 oral rat	3020 mg/kg body weight (Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat (Dust/Mist)	> 2.4 mg/l
Ammonium sulfate (7783-20-2)	
LD50 oral rat	4250 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 434: Acute Dermal Toxicity - Fixed Dose Procedure, Rat, Male / female, Experimental value, Dermal, 14 day(s))
Polyvinylpyrrolidone (9003-39-8)	
LD50 oral rat	100000 mg/kg (Rat, Oral)
LD50 dermal rat	> 12000 mg/kg (Rat, Dermal)
Polyethylene octylphenyl ether (9002-93-1)	
LD50 oral rat	1800 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	8000 mg/kg (Rabbit, Literature study, Dermal)
2-Methyl-4-isothiazolin-3-one (2682-20-4)	
LD50 oral rat	120 mg/kg body weight (EPA OPPTS 870.1100: Acute Oral Toxicity, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	242 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	0.11 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust), 7 day(s))
LC50 Inhalation - Rat (Dust/Mist)	0.33 mg/l
LC50 Inhalation - Rat (Vapors)	0.11 mg/l/4h

Lysis Buffer

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

Neutralizing Compound	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: other:
LD50 dermal rabbit	> 7940 mg/kg Source: ECHA

Acetic acid (64-19-7)	
LD50 oral rat	3310 mg/kg Source: ECHA Registered substances
LD50 oral	3310 mg/kg
LD50 dermal rabbit	1060 mg/kg Source: HSDB, NITE
LD50 dermal	1060 mg/kg
LC50 Inhalation - Rat [ppm]	16000 ppm Source: ChemIDPlus

Neutralizing Compound	
LD50 oral rat	> 5000 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 5.09 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)
LC50 Inhalation - Rat (Dust/Mist)	> 5.09 mg/l Source: ECHA

Neutralizing Compound	
LD50 oral rat	> 5000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 4.3 mg/l (OECD 436: Acute inhalation toxicity-acute toxic class method, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
LC50 Inhalation - Rat (Dust/Mist)	> 4.3 mg/l Source: ECHA

Skin corrosion/irritation	: Not classified pH: 7
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Potassium chloride (7447-40-7)	
NOAEL (chronic,oral,animal/male,2 years)	≈ 1820 mg/kg body weight Animal: rat, Animal sex: male

Ammonium sulfate (7783-20-2)	
NOAEL (chronic,oral,animal/male,2 years)	256 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (chronic,oral,animal/female,2 years)	284 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Polyvinylpyrrolidone (9003-39-8)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified

Neutralizing Compound	
NOAEL (animal/male, F0/P)	595.9 mg/kg body weight Animal: rat, Animal sex: male, Guideline: other:
Specific target organ toxicity – single exposure	: Not classified

Neutralizing Compound	
Specific target organ toxicity – single exposure	May cause respiratory irritation.
Specific target organ toxicity – repeated exposure	: Not classified

Lysis Buffer

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Potassium chloride (7447-40-7)	
NOAEL (oral, rat, 90 days)	≈ 1820 mg/kg body weight Animal: rat, Animal sex: male
2-Methyl-4-isothiazolin-3-one (2682-20-4)	
LOAEL (oral, rat, 90 days)	71.2 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents), Guideline: other:
Specific target organ toxicity – repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Acetic acid (64-19-7)	
NOAEL (oral, rat, 90 days)	290 mg/kg body weight Animal: rat, Animal sex: male
Neutralizing Compound	
NOAEL (oral, rat, 90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Ecotoxicity

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.

Potassium chloride (7447-40-7)	
LC50 - Fish [1]	880 mg/l (EPA 600/4-90/027, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	440 – 880 mg/l (EPA 600/4-90/027, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 - Other aquatic organisms [1]	440 – 880 mg/l Test organisms (species): other:
EC50 - Other aquatic organisms [2]	580 – 670 mg/l Test organisms (species): other:
EC50 72h - Algae [1]	> 100 mg/l Source: ECHA
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
Partition coefficient n-octanol/water (Log Pow)	-0.46 Source: OECD Screening Information Data Set
Ammonium sulfate (7783-20-2)	
LC50 - Fish [1]	53 mg/l (96 h, Oncorhynchus mykiss, Fresh water)
LC50 - Fish [2]	57.2 mg/l Test organisms (species): Prosopium williamsoni
EC50 - Crustacea [1]	169 mg/l (48 h, Daphnia magna, Static system, Fresh water)
EC50 - Other aquatic organisms [1]	121.7 mg/l Test organisms (species): other:
Partition coefficient n-octanol/water (Log Pow)	-5.1 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Polyvinylpyrrolidone (9003-39-8)	
LC50 - Fish [1]	> 10000 mg/l (96 h, Leuciscus idus)
EC50 96h - Algae [1]	162000 mg/l Source: Ecological Structure Activity Relationships
Partition coefficient n-octanol/water (Log Pow)	0.29 Source: Quantitative Structure Activity Relation

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Polyethylene octylphenyl ether (9002-93-1)	
LC50 - Fish [1]	8.9 mg/l (96 h, Pimephales promelas, Literature study)
EC50 - Crustacea [1]	26 mg/l (48 h, Daphnia magna, Literature study)
Partition coefficient n-octanol/water (Log Pow)	4.86 (Estimated value, KOWWIN)
2-Methyl-4-isothiazolin-3-one (2682-20-4)	
LC50 - Fish [1]	4.8 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	1.6 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	0.445 mg/l Source: ECHA
ErC50 algae	0.0695 mg/l
BCF - Fish [1]	5.8 – 48 (56 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-0.49 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (log Koc, OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method, Experimental value, GLP)
Neutralizing Compound	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Static system, Fresh water, Experimental value)
LC50 - Fish [2]	> 100 mg/l Test organisms (species): other:
EC50 - Crustacea [1]	275 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): other:
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-0.737 (Calculated, 25 °C)
Acetic acid (64-19-7)	
LC50 - Fish [1]	> 1000 mg/l
LC50 - Fish [2]	> 300.82 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	65 mg/l
EC50 - Crustacea [2]	> 300.82 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	4.51 mg/l Source: ECHA
EC50 72h - Algae [2]	> 300.82 mg/l Test organisms (species): Skeletonema costatum
ErC50 algae	> 1000 mg/l
Partition coefficient n-octanol/water (Log Pow)	≤ -0.503
Neutralizing Compound	
LC50 - Fish [1]	> 100 mg/l Source: ECHA
Neutralizing Compound	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

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Neutralizing Compound	
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i>)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, <i>Desmodesmus subspicatus</i> , Static system, Fresh water, Read-across, GLP)
BCF - Other aquatic organisms [1]	0.64 l/kg (4 h, <i>Chlorella</i> sp., Fresh water, Read-across, Fresh weight)

12.2. Persistence and degradability

Lysis Buffer	
Persistence and degradability	Not rapidly degradable
Potassium chloride (7447-40-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Ammonium sulfate (7783-20-2)	
Persistence and degradability	Biodegradability in water: no data available.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Polyvinylpyrrolidone (9003-39-8)	
Persistence and degradability	Not readily biodegradable in water.
Neutralizing Compound	
Persistence and degradability	Not rapidly degradable
Polyethylene octylphenyl ether (9002-93-1)	
Persistence and degradability	Not readily biodegradable in water.
Chemical oxygen demand (COD)	2.19 mg/g
ThOD	2.16 g O ₂ /g substance
2-Methyl-4-isothiazolin-3-one (2682-20-4)	
Persistence and degradability	Not readily biodegradable in water.
Neutralizing Compound	
Persistence and degradability	Readily biodegradable in water.
Acetic acid (64-19-7)	
Persistence and degradability	Biodegradable in the soil, Does not contain any not readily biodegradable component(s).
Cresol red sodium salt (62625-29-0)	
Persistence and degradability	Not rapidly degradable
Neutralizing Compound	
Persistence and degradability	Biodegradability in soil: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

Lysis Buffer

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

Neutralizing Compound	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

Lysis Buffer	
Bioaccumulative potential	No additional information available

Potassium chloride (7447-40-7)	
Partition coefficient n-octanol/water (Log Pow)	-0.46 Source: OECD Screening Information Data Set
Bioaccumulative potential	Not bioaccumulative.

Ammonium sulfate (7783-20-2)	
Partition coefficient n-octanol/water (Log Pow)	-5.1 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Not bioaccumulative.

Polyvinylpyrrolidone (9003-39-8)	
Partition coefficient n-octanol/water (Log Pow)	0.29 Source: Quantitative Structure Activity Relation
Bioaccumulative potential	No bioaccumulation data available.

Polyethylene octylphenyl ether (9002-93-1)	
Partition coefficient n-octanol/water (Log Pow)	4.86 (Estimated value, KOWWIN)
Bioaccumulative potential	Potential for bioaccumulation ($4 \leq \text{Log Kow} \leq 5$).

2-Methyl-4-isothiazolin-3-one (2682-20-4)	
BCF - Fish [1]	5.8 – 48 (56 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-0.49 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (log Koc, OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method, Experimental value, GLP)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Neutralizing Compound	
Partition coefficient n-octanol/water (Log Pow)	-0.737 (Calculated, 25 °C)
Bioaccumulative potential	Not bioaccumulative.

Acetic acid (64-19-7)	
Partition coefficient n-octanol/water (Log Pow)	≤ -0.503
Bioaccumulative potential	Does not contain bioaccumulative component(s).

Neutralizing Compound	
Bioaccumulative potential	No bioaccumulation data available.

Neutralizing Compound	
BCF - Other aquatic organisms [1]	0.64 l/kg (4 h, Chlorella sp., Fresh water, Read-across, Fresh weight)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Lysis Buffer

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

12.4. Mobility in soil

Lysis Buffer

Mobility in soil	No additional information available
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Potassium chloride (7447-40-7)

Partition coefficient n-octanol/water (Log Pow)	-0.46 Source: OECD Screening Information Data Set
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Ecology - soil	Low potential for adsorption in soil.
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Ammonium sulfate (7783-20-2)

Partition coefficient n-octanol/water (Log Pow)	-5.1 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
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Ecology - soil	Adsorption to soil is possible.
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Polyvinylpyrrolidone (9003-39-8)

Partition coefficient n-octanol/water (Log Pow)	0.29 Source: Quantitative Structure Activity Relation
---	---

Polyethylene octylphenyl ether (9002-93-1)

Partition coefficient n-octanol/water (Log Pow)	4.86 (Estimated value, KOWWIN)
---	--------------------------------

Ecology - soil	No (test)data on mobility of the substance available.
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2-Methyl-4-isothiazolin-3-one (2682-20-4)

Surface tension	68.8 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
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Partition coefficient n-octanol/water (Log Pow)	-0.49 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
---	--

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (log Koc, OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method, Experimental value, GLP)
--	--

Ecology - soil	Highly mobile in soil.
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Neutralizing Compound

Partition coefficient n-octanol/water (Log Pow)	-0.737 (Calculated, 25 °C)
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Ecology - soil	No (test)data on mobility of the substance available.
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Acetic acid (64-19-7)

Surface tension	No data available in the literature
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Partition coefficient n-octanol/water (Log Pow)	≤ -0.503
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Ecology - soil	Contains component(s) with potential for mobility in the soil. May be harmful to plant growth, blooming and fruit formation.
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Neutralizing Compound

Ecology - soil	Adsorbs into the soil.
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12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

Ecological waste information : The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Disposal must be done according to official regulations.

Additional information : Do not re-use empty containers.

Lysis Buffer

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not regulated for transport		
14.2. Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

UN RTDG

Not regulated

IMDG

Not regulated

IATA

Not regulated

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

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Priority Chemical List (PCL) and Chemical Control Orders (CCO)		
Initial List of Single Substances and Compounds Covered under Chemical Control Order (CCO) and Priority Chemical List (PCL) DENR Administrative Order 2015-09	Not applicable	
Priority Chemical List DENR Administrative Order 2005-27	Not applicable	
Chemical Control Orders	Not applicable	
Chemical Control Order for Ozone Depleting Substances	Not applicable	

Lysis Buffer

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according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

Others		
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Applicable	Potassium Chloride (7447-40-7) AMMONIUM SULFATE (7783-20-2) 2-Pyrrolidinone, 1-ethenyl-, homopolymer (9003-39-8) Neutralizing Compound ETHOXYLATED 4-TERT-OCTYLPHENOL (9002-93-1) 2-METHYL-3(2H)-ISOTHIAZOLINONE (2682-20-4) ACETIC ACID (64-19-7)
Controlled Chemical for Manufacture of Explosives or Explosives Ingredients Presidential Decree No.1866	Not applicable	
Comprehensive Dangerous Drugs Act of 2002	Not applicable	
Fertilizers and Pesticides Regulation (Decree No. 1144)	Not applicable	
Food Additives Regulation	Additives approved only for use as food processing	Potassium chloride (7447-40-7) Acetic acid (64-19-7)
	Additives approved only for limited number of food categories	AMMONIUM SULFATE (7783-20-2)
	Additives permitted for use in food in general	Polyvinylpyrrolidone (9003-39-8)
	Enzymes permitted for use in food	Neutralizing Compound
Management of Hazardous Waste (Republic Act No. 6969)	Not applicable	
Philippines Clean Air Act	Not applicable	
High Volume Chemicals List	Applicable	Potassium chloride(Muriate of potash) (7447-40-7) Acetic acid (64-19-7)

15.2. International regulations

No additional information available

SECTION 16: Other information

Version	: 4.0
Issue date	: 26/08/2025
Revision date	: 03/06/2026
Supersedes	: 03/10/2025

Safety Data Sheet (SDS), Philippines

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. Product identifier

Trade name : E.coli Reagent Pack
Name : MDA2-E.coli Reagent Pack
Product code : 400001335

1.2. Other means of identification

Part Number(s) : 400001335

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Scientific research and development, Laboratory chemicals
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Details of the supplier of the safety data sheet

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

1.5. Emergency telephone 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: Hazards identification

2.1. Classification of the substance or mixture

Skin sensitization, Category 1 H317

2.2. Label elements

Hazard pictograms (GHS PH) :



Signal word (GHS PH) : Warning
Contains : DL-Dithiothreitol
Hazard statements (GHS PH) : H317 - May cause an allergic skin reaction
Precautionary statements (GHS PH) : 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/hearing protection/....
P302+P352 - IF ON SKIN: Wash with plenty of water.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P317 - If skin irritation or rash occurs: Get medical help.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

E.coli Reagent Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS PH classification
Excipient	-	≥ 90	Not classified
Excipient	-	≥ 5 – < 10	Not classified
Water	CAS-No.: 7732-18-5	≥ 0.5 - ≤ 1	Not classified
DNA Polymerase	-	≥ 0.5 – < 1	Not classified
Substrate	-	≥ 0.5 – < 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Acetic acid, potassium salt	CAS-No.: 127-08-2	≥ 0.5 – < 1	Not classified
Excipient	-	≥ 0.5 – < 1	Not classified
DNA Potassium Salt	CAS-No.: 9007-49-2	≥ 0.5 – < 1	Not classified
Recombinant Luciferase	CAS-No.: 61970-00-1	≥ 0.5 – < 1	Not classified
DL-Dithiothreitol	CAS-No.: 3483-12-3	≥ 0.5 – < 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 2, H411
Excipient	-	< 0.1	Not classified
DNA Polymerase	-	< 0.1	Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
Tris(hydroxymethyl)aminomethane	CAS-No.: 77-86-1	< 0.1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Ethylenediaminetetraacetic acid (EDTA)	CAS-No.: 60-00-4	< 0.1	Eye Irrit. 2, H319
Potassium chloride	CAS-No.: 7447-40-7	< 0.1	Not classified
Excipient	-	< 0.1	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411
Sodium chloride	CAS-No.: 7647-14-5	< 0.1	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
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.
Personal protection for first-aid responders.	: First-aiders should consider self-protection and use the recommended personal protective equipment (see section 8).

E.coli Reagent Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions. Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

5.3. Advice for firefighters

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	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up	: Mechanically recover the product.

E.coli Reagent Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

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

Exposure limit values of other components

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

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):



- Environmental exposure controls : Avoid release to the environment.

E.coli Reagent Pack

Safety Data Sheet

according to the DENR EMB MC 2015-011 and DAO 2015-09 Guidance Manual

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Pellet.
Color	: White
Odor	: Odorless
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability	: Non flammable
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 Kow)	: No data available
Viscosity, kinematic	: Not applicable
Explosion limits	: Not applicable
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

9.2. Other information

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

SECTION 11: Toxicological information

11.1. Acute toxicity

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

Excipient	
LD50 oral rat	100000 mg/kg (Rat, Oral)
LD50 dermal rat	> 12000 mg/kg (Rat, Dermal)
Excipient	
LD50 oral rat	27200 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Female, Experimental value, Oral, 10 day(s))
LD50 dermal	56750 mg/kg (4 day(s), Guinea pig, Male / female, Experimental value, Dermal, 14 day(s))

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Excipient	
LC50 Inhalation - Rat	> 5.85 mg/l (Equivalent or similar to OECD 412, 4 h, Rat, Male / female, Experimental value, Inhalation (mist), 14 day(s))
LC50 Inhalation - Rat (Vapors)	> 2.75 mg/l Source: ECHA
DNA Polymerase	
LD50 oral rat	> 2000 mg/kg body weight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Read-across, Dermal, 14 day(s))
Potassium chloride (7447-40-7)	
LD50 oral rat	3020 mg/kg body weight (Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat (Dust/Mist)	> 2.4 mg/l
Excipient	
LD50 oral rat	1800 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	8000 mg/kg (Rabbit, Literature study, Dermal)
Sodium chloride (7647-14-5)	
LD50 oral rat	> 3980 mg/kg body weight (Rat, Experimental value, 20 % aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 Inhalation - Rat	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20 % aqueous solution, Inhalation (aerosol))
LC50 Inhalation - Rat (Dust/Mist)	> 10.5 mg/l Source: Corporate Solution From Thomson Micromedex
Excipient	
LD50 oral rat	4600 mg/kg (Rat, Oral)
Water (7732-18-5)	
LD50 oral rat	90000 mg/kg
DL-Dithiothreitol (3483-12-3)	
LD50 oral rat	400 mg/kg (Rat, Oral)
Tris(hydroxymethyl)aminomethane (77-86-1)	
LD50 oral rat	> 5000 mg/kg body weight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 5000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)
LD50 dermal rabbit	5900 mg/kg Source: Corporate Solution From Thomson Micromedex
Ethylenediaminetetraacetic acid (EDTA) (60-00-4)	
LD50 oral rat	4500 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	2580 mg/kg
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

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Excipient	
IARC group	3 - Not classifiable
Potassium chloride (7447-40-7)	
NOAEL (chronic,oral,animal/male,2 years)	≈ 1820 mg/kg body weight Animal: rat, Animal sex: male
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Substrate	
Specific target organ toxicity – single exposure	May cause respiratory irritation.
DL-Dithiothreitol (3483-12-3)	
Specific target organ toxicity – single exposure	May cause respiratory irritation.
Tris(hydroxymethyl)aminomethane (77-86-1)	
Specific target organ toxicity – single exposure	May cause respiratory irritation.
Specific target organ toxicity – repeated exposure	: Not classified
Potassium chloride (7447-40-7)	
NOAEL (oral, rat, 90 days)	≈ 1820 mg/kg body weight Animal: rat, Animal sex: male
Tris(hydroxymethyl)aminomethane (77-86-1)	
LOAEL (oral, rat, 90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Ethylenediaminetetraacetic acid (EDTA) (60-00-4)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.015 mg/l air Animal: rat, Animal sex: female, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (oral, rat, 90 days)	≥ 500 mg/kg body weight Animal: rat
NOAEL (subchronic, oral, animal/male, 90 days)	≥ 500 mg/kg body weight Animal: , Animal sex: male
Aspiration hazard	: Not classified
E.coli Reagent Pack	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Ecotoxicity

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.

Excipient	
LC50 - Fish [1]	> 10000 mg/l (96 h, Leuciscus idus)
EC50 96h - Algae [1]	162000 mg/l Source: Ecological Structure Activity Relationships
Partition coefficient n-octanol/water (Log Pow)	0.29 Source: Quantitative Structure Activity Relation

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Excipient	
LC50 - Fish [1]	54000 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 10000 mg/l (24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
Partition coefficient n-octanol/water (Log Pow)	-1.8 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
DNA Potassium Salt (9007-49-2)	
LC50 - Fish [1]	873000 mg/l Source: EPISUITE
EC50 - Crustacea [1]	22463.928 mg/l Source: EPISUITE
EC50 96h - Algae [1]	1125.24 mg/l Source: EPISUITE
Partition coefficient n-octanol/water (Log Pow)	-4.61 Source: EPISUITE, estimate
DNA Polymerase	
LC50 - Fish [1]	680 mg/l (EPA 600/4-90/027, 96 h, Pimephales promelas, Static system, Fresh water, Read-across, Lethal)
LC50 - Fish [2]	15500 mg/l (96 h, Gambusia affinis, Static system)
EC50 - Crustacea [1]	1700 mg/l (24 h, Daphnia magna)
EC50 72h - Algae [1]	0.00411 mg/l
Potassium chloride (7447-40-7)	
LC50 - Fish [1]	880 mg/l (EPA 600/4-90/027, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	440 – 880 mg/l (EPA 600/4-90/027, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 - Other aquatic organisms [1]	440 – 880 mg/l Test organisms (species): other:
EC50 - Other aquatic organisms [2]	580 – 670 mg/l Test organisms (species): other:
EC50 72h - Algae [1]	> 100 mg/l Source: ECHA
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
Partition coefficient n-octanol/water (Log Pow)	-0.46 Source: OECD Screening Information Data Set
Excipient	
LC50 - Fish [1]	8.9 mg/l (96 h, Pimephales promelas, Literature study)
EC50 - Crustacea [1]	26 mg/l (48 h, Daphnia magna, Literature study)
Partition coefficient n-octanol/water (Log Pow)	4.86 (Estimated value, KOWWIN)
Sodium chloride (7647-14-5)	
LC50 - Fish [1]	5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
LOEC (chronic)	441 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'
NOEC (chronic)	314 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'
Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

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DL-Dithiothreitol (3483-12-3)	
EC50 - Crustacea [1]	34.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	24.3 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	8.66 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
Tris(hydroxymethyl)aminomethane (77-86-1)	
LC50 - Fish [1]	955.892 mg/l Source: Ecological Structure Activity Relationships
EC50 - Crustacea [1]	> 980 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h - Algae [1]	397 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	163.053 mg/l Source: Ecological Structure Activity Relationships
ErC50 algae	397 mg/l (Equivalent or similar to OECD 201, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
Partition coefficient n-octanol/water (Log Pow)	-2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.34 – 1.87 (log Koc, QSAR)
Ethylenediaminetetraacetic acid (EDTA) (60-00-4)	
LC50 - Fish [1]	159 mg/l (US EPA, 96 h, Lepomis macrochirus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	140 mg/l (DIN 38412-11, 48 h, Daphnia magna, Static system, Fresh water, Read-across, Locomotor effect)
EC50 72h - Algae [1]	> 60 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Weight of evidence, GLP)
LOEC (chronic)	50 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 25.7 mg/l Test organisms (species): Duration: '35 d'
NOEC chronic crustacea	5.5 mg/l
BCF - Fish [1]	1.1 – 1.8 (28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Read-across, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	0.13 (Weight of evidence approach)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.495 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

12.2. Persistence and degradability

E.coli Reagent Pack	
Persistence and degradability	Not rapidly degradable
Excipient	
Persistence and degradability	Not readily biodegradable in water.
DNA Polymerase	
Persistence and degradability	Not rapidly degradable

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Substrate	
Persistence and degradability	Biodegradability in water: no data available.
Acetic acid, potassium salt (127-08-2)	
Persistence and degradability	Not rapidly degradable
Excipient	
Persistence and degradability	Readily biodegradable in water.
DNA Potassium Salt (9007-49-2)	
Persistence and degradability	Biodegradability in water: no data available.
Excipient	
Persistence and degradability	Not rapidly degradable
DNA Polymerase	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Potassium chloride (7447-40-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Excipient	
Persistence and degradability	Not readily biodegradable in water.
Chemical oxygen demand (COD)	2.19 mg/g
ThOD	2.16 g O ₂ /g substance
Sodium chloride (7647-14-5)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Excipient	
Persistence and degradability	Biodegradability in soil: no data available.
Recombinant Luciferase (61970-00-1)	
Persistence and degradability	Not rapidly degradable
Water (7732-18-5)	
Persistence and degradability	Not rapidly degradable
DL-Dithiothreitol (3483-12-3)	
Persistence and degradability	Biodegradability in water: no data available.
Tris(hydroxymethyl)aminomethane (77-86-1)	
Persistence and degradability	Readily biodegradable in water.
Ethylenediaminetetraacetic acid (EDTA) (60-00-4)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.01 g O ₂ /g substance

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Ethylenediaminetetraacetic acid (EDTA) (60-00-4)	
Chemical oxygen demand (COD)	0.85 g O ₂ /g substance
ThOD	1.09 g O ₂ /g substance
BOD (% of ThOD)	0.0091

12.3. Bioaccumulative potential

E.coli Reagent Pack	
Bioaccumulative potential	No additional information available

Excipient	
Partition coefficient n-octanol/water (Log Pow)	0.29 Source: Quantitative Structure Activity Relation
Bioaccumulative potential	No bioaccumulation data available.

Substrate	
Bioaccumulative potential	No bioaccumulation data available.

Excipient	
Partition coefficient n-octanol/water (Log Pow)	-1.8 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Not bioaccumulative.

DNA Potassium Salt (9007-49-2)	
Partition coefficient n-octanol/water (Log Pow)	-4.61 Source: EPISUITE, estimate
Bioaccumulative potential	No bioaccumulation data available.

DNA Polymerase	
Bioaccumulative potential	Not bioaccumulative.

Potassium chloride (7447-40-7)	
Partition coefficient n-octanol/water (Log Pow)	-0.46 Source: OECD Screening Information Data Set
Bioaccumulative potential	Not bioaccumulative.

Excipient	
Partition coefficient n-octanol/water (Log Pow)	4.86 (Estimated value, KOWWIN)
Bioaccumulative potential	Potential for bioaccumulation (4 ≤ Log Kow ≤ 5).

Sodium chloride (7647-14-5)	
Bioaccumulative potential	Not bioaccumulative.

Excipient	
Bioaccumulative potential	No bioaccumulation data available.

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

DL-Dithiothreitol (3483-12-3)	
Bioaccumulative potential	No bioaccumulation data available.

Tris(hydroxymethyl)aminomethane (77-86-1)	
Partition coefficient n-octanol/water (Log Pow)	-2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)

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Tris(hydroxymethyl)aminomethane (77-86-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.34 – 1.87 (log Koc, QSAR)
Bioaccumulative potential	Not bioaccumulative.
Ethylenediaminetetraacetic acid (EDTA) (60-00-4)	
BCF - Fish [1]	1.1 – 1.8 (28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Read-across, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	0.13 (Weight of evidence approach)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.495 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
12.4. Mobility in soil	
E.coli Reagent Pack	
Mobility in soil	No additional information available
Excipient	
Partition coefficient n-octanol/water (Log Pow)	0.29 Source: Quantitative Structure Activity Relation
Excipient	
Surface tension	63.4 mN/m (20 °C, 1000 g/l)
Partition coefficient n-octanol/water (Log Pow)	-1.8 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.
DNA Potassium Salt (9007-49-2)	
Mobility in soil	0.002082
Partition coefficient n-octanol/water (Log Pow)	-4.61 Source: EPISUITE, estimate
Ecology - soil	No (test)data on mobility of the substance available.
DNA Polymerase	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.
Potassium chloride (7447-40-7)	
Partition coefficient n-octanol/water (Log Pow)	-0.46 Source: OECD Screening Information Data Set
Ecology - soil	Low potential for adsorption in soil.
Excipient	
Partition coefficient n-octanol/water (Log Pow)	4.86 (Estimated value, KOWWIN)
Ecology - soil	No (test)data on mobility of the substance available.
Sodium chloride (7647-14-5)	
Surface tension	73.03 mN/m (23 °C, 14.5 g/l)
Ecology - soil	No (test)data on mobility of the substance available.
Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

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Tris(hydroxymethyl)aminomethane (77-86-1)	
Partition coefficient n-octanol/water (Log Pow)	-2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.34 – 1.87 (log Koc, QSAR)
Ecology - soil	Highly mobile in soil.

Ethylenediaminetetraacetic acid (EDTA) (60-00-4)	
Partition coefficient n-octanol/water (Log Pow)	0.13 (Weight of evidence approach)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.495 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

SECTION 13: Disposal considerations

Ecological waste information	: The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
Not regulated for transport		
14.2. Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

UN RTDG
Not regulated

IMDG
Not regulated

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IATA

Not regulated

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

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Priority Chemical List (PCL) and Chemical Control Orders (CCO)		
Initial List of Single Substances and Compounds Covered under Chemical Control Order (CCO) and Priority Chemical List (PCL) DENR Administrative Order 2015-09	Not applicable	
Priority Chemical List DENR Administrative Order 2005-27	Not applicable	
Chemical Control Orders	Not applicable	
Chemical Control Order for Ozone Depleting Substances	Not applicable	

Others		
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Applicable	Excipient ACETATE, POTASSIUM (127-08-2) DNA Polymerase Potassium Chloride (7447-40-7) SODIUM CHLORIDE (7647-14-5) CRAON 17-502 (7732-18-5) 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (3483-12-3) 1,3-Propanediol, 2-amino-2-(hydroxymethyl)- (77-86-1) DOHTITE 4H, EDTA ACID (60-00-4)
Controlled Chemical for Manufacture of Explosives or Explosives Ingredients Presidential Decree No.1866	Not applicable	
Comprehensive Dangerous Drugs Act of 2002	Not applicable	
Fertilizers and Pesticides Regulation (Decree No. 1144)	Not applicable	
Food Additives Regulation	Additives permitted for use in food in general	Excipient
	Additives approved only for use as food processing	Acetic acid, potassium salt (127-08-2) Excipient Potassium chloride (7447-40-7)
	Enzymes permitted for use in food	Sodium chloride (7647-14-5)
Management of Hazardous Waste (Republic Act No. 6969)	Not applicable	
Philippines Clean Air Act	Not applicable	
High Volume Chemicals List	Applicable	DNA Polymerase Potassium chloride(Muriate of potash) (7447-40-7) Sodium chloride (7647-14-5) Ethylenediaminetetraacetic acid (60-00-4)

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15.2. International regulations

No additional information available

SECTION 16: Other information

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Safety Data Sheet (SDS), Philippines

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.