



Neogen® Molecular Detection Assay 2, Listeria monocytogenes

Kit Product

Kit identification

Trade name : Neogen® Molecular Detection Assay 2, Listeria monocytogenes
Product code : MDA2LMO96
Part Number(s) : 700002149|MDA2LMO96

Details of the supplier of the Kit safety information sheet

Neogen Corporation
620 Leshar 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 |
|----------------------|--------------------|
| L.mono 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, *Listeria monocytogenes*

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

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. |
|-----------------------------------|--------------------------|

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. |
|------------------|---|

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

| 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

Safety Data Sheet

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

| 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
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.



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. |
|-----------------------------------|--------------------------|

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

Safety Data Sheet

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

| 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 |

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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 |
| 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. |
| Ammonium sulfate (7783-20-2) | |
| Partition coefficient n-octanol/water (Log Pow) | -5.1 (Experimental value, Equivalent or similar to OECD 107, 25 °C) |
| Ecology - soil | Adsorption to soil is possible. |
| 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. |
| 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) |
| 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. |
| Neutralizing Compound | |
| Partition coefficient n-octanol/water (Log Pow) | -0.737 (Calculated, 25 °C) |
| Ecology - soil | No (test)data on mobility of the substance available. |
| Acetic acid (64-19-7) | |
| Surface tension | No data available in the literature |
| Partition coefficient n-octanol/water (Log Pow) | ≤ -0.503 |
| Ecology - soil | Contains component(s) with potential for mobility in the soil. May be harmful to plant growth, blooming and fruit formation. |
| Neutralizing Compound | |
| Ecology - soil | Adsorbs into the 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 | : 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 | |

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| 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 : L.mono Reagent Pack
Name : MDA2-L.mono Reagent Pack
Product code : 400001341

1.2. Other means of identification

Part Number(s) : 400001341

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 : 1,4-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

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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 | Not classified |
| 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 |
| 1,4-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) |
| 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). |

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. |

L.mono Reagent Pack

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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.

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.

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.

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.

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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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|----------------|----------------|
| Physical state | : Solid |
| Appearance | : White solid. |
| Color | : White |
| Odor | : Odorless |

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| | |
|---|---------------------|
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : 214 – 216 °C |
| 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)) |
| 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)) |

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| DNA Polymerase | |
|---|---|
| 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 |
| 1,4-dithiothreitol (3483-12-3) | |
| LD50 oral rat | 400 mg/kg (Rat, Oral) |
| 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 |
| 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 |
| 1,4-dithiothreitol (3483-12-3) | |
| 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 |

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| 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

| L.mono 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 |

| 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) |

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| Potassium chloride (7447-40-7) | |
|--|---|
| 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 |
| 1,4-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) |
| 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) |

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12.2. Persistence and degradability

| L.mono 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 |
| Substrate | |
| Persistence and degradability | Not rapidly degradable |
| 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 |

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| 1,4-dithiothreitol (3483-12-3) | |
|--|---|
| Persistence and degradability | Biodegradability in water: no data available. |
| 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 |
| 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 | |
| L.mono 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. |
| 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 |
| 1,4-dithiothreitol (3483-12-3) | |
| Bioaccumulative potential | No bioaccumulation data available. |

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| 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

| L.mono 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 |

| 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) |

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Ethylenediaminetetraacetic acid (EDTA) (60-00-4)

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

IATA

Not regulated

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

Not applicable

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

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) 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) |

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.