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|------------------------------------|----------------------------|--------------|
| Luminex[®] | SAFETY DATA SHEET | |
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Complying with Regulation (EC) No 1272/2008 (CLP) as amended by Commission Regulation (EU) 2020/878. (Ireland)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name: ARIES[®] Assay Kit

Other means of identification:

Commercial name(s): ARIES[®] HSV 1&2 Assay, ARIES[®] C. *difficile* Assay, ARIES[®] Flu A/B and RSV Assay, ARIES[®] GBS Assay, ARIES[®] Norovirus Assay, ARIES[®] *Bordetella* Assay, ARIES[®] MRSA Assay, ARIES[®] Group A Strep Assay, ARIES[®] SARS-CoV-2 Assay (24) Cassettes, ARIES[®] Flu A/B & RSV+SARS-CoV-2 Assay

Product Codes: 50-10011, 50-10017, 50-10031, 50-10012, 50-10018, 50-10014, 50-10020, 50-10015, 50-10021, 50-10019, 50-10036, 50-10037, 50-10034, 50-10040, 50-10041, 50-10047, 50-10048, 50-10051, 50-10055, 50-10054

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified uses: For Professional use only. Use as per Product Insert
 Uses advised against: Uses other than those described above.

1.3 Details of the supplier of the safety data sheet

Company Name: Luminex Corporation.
Company Address: 12212 Technology Blvd
 Austin, Texas 78727
Company Tel (Enquiries): Tel: 1-512-381-4397
 Fax: 1-512-219-5114
<http://www.luminexcorp.com>

1.4 Emergency telephone number

Emergency telephone number (including hours of operation): 1-(512) 381-4397
Emergency email: support@luminexcorp.com
Hours of operations: 24/7

Poison Centre Information:

National Poisons Information Centre: 353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week). Healthcare Professionals: +353 (1)809 2566 (24 hour service)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance to Regulation (EC) No. 1272/2008 (CLP/GHS)

Overall Classification for the kit:

| Product name | GHS Classification |
|----------------------------------|--|
| ARIES [®] HSV 1&2 Assay | Flammable Liquid, Category 2 Skin Corrosion Category 1C Acute Toxicity, Oral, Category 4 Acute Toxicity, Dermal, Category 4 Serious Eye Damage, Category 1 Acute Toxicity, Inhalation, Category 4 |

Specific Target Organ Toxicity, Single Exposure, Category 3
Hazardous to the Aquatic Environment, Chronic, Category 3

Classification of the compartments of the kit:**Plug 1**

Not classified as hazardous

Plug 2

Flam. Liq. 2, H225

Eye Irrit. 2, H319

STOT SE 3, H336

Plug 3

Flam. Liq. 2, H225

Eye Irrit. 2, H319

STOT SE 3, H336

Plug 4

Skin Corr 1C H314

Acute Tox 4, oral, H302

Acute Tox 4, dermal, H312

Eye Dam 1 H318

Acute Tox 4, inhalation, H332

Aquatic chronic 3 H412

Wash 1

Flam. Liq. 2, H225

STOT SE 3, H336

Skin Corr 1C H314

Eye Dam 1 H318

Wash 2

Not classified as hazardous

Elution

Not classified as hazardous

PCR Tube

Not classified as hazardous

2.2 Label elements

Labelling in accordance with Regulation 1272/2008

Labelling information for the kit:

Hazard pictograms:



Signal word:

DANGER

Hazard statements: H225 - Highly flammable liquid and vapour
H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.
H314 - Causes severe skin burns and eye damage
H336 - May cause drowsiness or dizziness
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor
P370+P378 - In case of fire: Use water spray (fog), carbon dioxide (CO₂), dry chemical powder or foam to extinguish.

Supplemental Hazard Statements. None known

Labelling information for the compartments of the kit:

PLUG 1

Hazard pictograms: None required
Signal word: None required
Hazard statements: None required
Precautionary Statements: None required

Supplemental Hazard Statements. None known

PLUG 2:

Hazard pictograms:



Signal word: **DANGER**

Hazard statements: H225 - Highly flammable liquid and vapour
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary Statements: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing dust/fume/gas/mist/ vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 - Call a POISON CENTRE/doctor if you feel unwell.

P403+P235 - Store in a well-ventilated place. Keep cool.

Supplemental Hazard Statements.

None known

PLUG 3**Hazard pictograms:****Signal word:****DANGER****Hazard statements:**

H225 - Highly flammable liquid and vapour

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

Precautionary Statements:

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 - Avoid breathing dust/fume/gas/mist/ vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 - Call a POISON CENTRE/doctor if you feel unwell.

P403+P235 - Store in a well-ventilated place. Keep cool.

Supplemental Hazard Statements.

None known

PLUG 4**Hazard pictograms:****Signal word:****DANGER****Hazard statements:**

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.

H314 - Causes severe skin burns and eye damage

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor

Supplemental Hazard Statements.

None known

WASH 1:**Hazard pictograms:****Signal word:****DANGER****Hazard statements:**

H225 - Highly flammable liquid and vapour
H314 - Causes severe skin burns and eye damage
H336 - May cause drowsiness or dizziness

Precautionary Statements:

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor
P370+P378 - In case of fire: Use water spray (fog), carbon dioxide (CO₂), dry chemical powder or foam to extinguish.

Supplemental Hazard Statements.

None known

WASH 2:**Hazard pictograms:**

None required

Signal word:

None required

Hazard statements:

None required

Precautionary Statements:

None required

Supplemental Hazard Statements.

None known

ELUTION:

Hazard pictograms: None required
Signal word: None required
Hazard statements: None required
Precautionary Statements: None required

Supplemental Hazard Statements. None known

PCR TUBE

Hazard pictograms: None required
Signal word: None required
Hazard statements: None required
Precautionary Statements: None required

Supplemental Hazard Statements. None known

2.3 Other hazards

This substance/mixture contains Poly(oxy-1,2-ethanediyl), α -[(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- which is considered to be an endocrine-disrupting substance.

No components are classified as persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances :**

Not applicable

3.2 Mixture :**PLUG 1:**

Not classified as a hazardous mixture and therefore does not require reporting in this section.

PLUG 2:

| Product/ Ingredient name | Identifiers | % | Classification 1272/2008/EC | Nano material form | M Factor | Specific conc'n limits (SCL) | Acute toxicity estimate (ATE) |
|---|--|----------|---|-----------------------------------|---------------------|---|--|
| Isopropanol | CAS No 67-63-0 EC No 200-661-7 REACH No 01- 2119457558- 25-XXXX | > 95% | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 | No | 1 | No SCL in Annex VI | No ATE in Annex VI |

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PLUG 3:

| Product/ Ingredient name | Identifiers | % | Classification 1272/2008/EC | Nano material form | M Factor | Specific conc'n limits (SCL) | Acute toxicity estimate (ATE) |
|--------------------------------|--|-------------|---|--------------------------|-------------|---------------------------------------|--|
| Isopropanol | CAS No 67-63-0 EC No 200-661-7 REACH No 01- 2119457558- 25-XXXX | 80- 100% | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 | No | 1 | No SCL in Annex VI | No ATE in Annex VI |

PLUG 4:

| Product/ Ingredient name | Identifiers | % | Classification 1272/2008/EC | Nano material form | M Factor | Specific conc'n limits (SCL) | Acute toxicity estimate (ATE) |
|---|---|--------|--|--------------------------|-------------|---------------------------------------|--|
| Guanidinium Thiocyanate | CAS No 593-84-0 EC No 209-812-1 REACH No 01- 2120735072- 65-XXXX | 50-55% | Acute Tox. 4 (oral), H302 Acute Tox. 4 (dermal), H312 Acute Tox. 4 (inhalation), H332 Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412 | No | 1 | No SCL in Annex VI | No ATE in Annex VI |
| Poly(oxy- 1,2- ethanediyl), α-[4-(1,1,3,3- tetramethylb utyl)phenyl]- ω-hydroxy- | CAS No 9002-93-1 EC No 618-344-0 REACH No n/a | 3-5% | Acute Tox. 4, (oral) H302 Skin Irrit 2 H315 Eye Dam 1, H318 Aquatic Chronic 2, H411 | No | 1 | No SCL in Annex VI | No ATE in Annex VI |

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WASH 1:

| Product/ Ingredient name | Identifiers | % | Classification 1272/2008/EC | Nano material form | M Factor | Specific conc'n limits (SCL) | Acute toxicity estimate (ATE) |
|------------------------------------|---|--------|--|--------------------------|-------------|---------------------------------------|--|
| Isopropanol | CAS No 67-63-0 EC No 200-661-7 REACH No 01- 2119457558- 25-XXXX | 25-50% | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 | No | 1 | No SCL in Annex VI | No ATE in Annex VI |
| Guanidinium Thiocyanate | CAS No 593-84-0 EC No 209-812-1 REACH No 01- 2120735072- 65-XXXX | 5-10% | Acute Tox. 4 (oral), H302 Acute Tox. 4 (dermal), H312 Acute Tox. 4 (inhalation), H332 Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412 | No | 1 | No SCL in Annex VI | No ATE in Annex VI |

WASH 2:

Not classified as a hazardous mixture and therefore does not require reporting in this section.

ELUTION:

Not classified as a hazardous mixture and therefore does not require reporting in this section.

PCR TUBE:

Not classified as a hazardous mixture and therefore does not require reporting in this section.

Nanoforms present in product: Not applicable

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

Occupational exposure limits, if available, are listed in section 8 .
See section 16 for the full text of the H and P statements declared above

SECTION 4: FIRST AID MEASURES

Eye contact: In case of eye contact, remove contact lenses and rinse immediately with plenty of water, including under the eyelids, for at least 15 mins. Get medical attention if symptoms develop.

Skin contact: Wash with water and soap and rinse thoroughly. Seek medical advice if irritation or pain develops.

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- Inhalation:** Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Seek medical advice.
- Ingestion:** Do NOT induce vomiting. Get medical attention immediately. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Kit:** Harmful if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause drowsiness or dizziness.
- Plug 1:** None known
- Plug 2:** Causes severe eye irritation. May cause drowsiness or dizziness.
- Plug 3:** Causes severe eye irritation. May cause drowsiness or dizziness.
- Plug 4:** Harmful if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage.
- Wash 1:** Causes severe skin burns and eye damage. May cause drowsiness or dizziness
- Wash 2:** None known
- Elution:** None known
- PCR Tube:** None known

4.3 Indication of any immediate medical attention and special treatment needed

If any symptoms are observed, contact a physician and give them this SDS sheet. Provide general supportive measures and treat symptomatically:

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: In case of fire: Use water spray (fog), carbon dioxide (CO₂), dry chemical powder or foam to extinguish.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture

Highly flammable. Easily ignited by heat, sparks or flames or other sources of ignition. Containers should be grounded and bonded. Vapours are initially heavier than air and spread along ground. Vapours may reach an ignition source, and flashback. Runoff to sewer may create fire or explosion hazard downstream from the source. Gases may form explosive mixtures with air.

Hazardous combustion products:

Carbon dioxide, carbon monoxide, nitrogen oxides, sulphur oxides.

5.3 Advice for firefighters

Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Keep out of drains, sewers, ditches and waterways. Inhalation is a health risk. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Wear self-contained breathing apparatus and protective clothing. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering.

For emergency responders

For large spillages, evacuate the area of all non-essential personnel. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion-proof electrical equipment is recommended. Avoid contact with skin, eyes and clothing. Ventilate contaminated area thoroughly. Avoid contact with spilled or released material. Immediately remove all contaminated clothing. Stay upwind and away from spill/release.

Wear appropriate protective equipment, such as gloves, goggles and protective clothing, as conditions warrant (see Section 8).

See Sections 2 and 7 for additional information on hazards and precautionary measures.

See Section 13 for disposal guidance.

6.2 Environmental precautions

Avoid disposal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Shut off leaks, if possible. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and firefighting water) to avoid environmental contamination. Absorb spill with inert material and place in suitable container for disposal.

6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, sparks and open flames. No smoking. Use only with adequate ventilation. Wear appropriate personal protective equipment and use exposure controls as indicated in Section 8. Avoid contact with skin and eyes. Avoid breathing product dust or vapours. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Non-sparking tools should be used. Ground and bond all transfer and storage equipment to prevent static sparks. Do not enter confined spaces without following proper entry procedures. Remove contaminated clothing immediately. Wash with soap and water after working with this product.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from flame, sparks, excessive temperatures and open flames. Keep away from strong oxidizers, ignition sources and heat.

Storage temperature: Store at 15°C to 30°C upon receipt

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

| Component | Category | Notification and MAP Threshold (tonnes) | Safety report threshold (tonnes) |
|-----------|----------|---|----------------------------------|
| | | | |

| | | | |
|----------------------|--|------|-------|
| Plug 2 - Isopropanol | P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b | 5000 | 50000 |
| Plug 3 - Isopropanol | P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b | 5000 | 50000 |
| Wash 1 - Isopropanol | P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b | 5000 | 50000 |

7.3 Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION**8.1 Control parameters**

Occupational exposure limit values:

| Ingredient name | CAS Number | Occupational exposure limits | Source |
|---|-------------------|--|---|
| Isopropanol (Plug 2, Plug 3, Wash 1) | 67-63-0 | Short-term value: 400 ppm, 1000 mg/m ³ (Ireland) Long-term value: 200 ppm, 500 mg/m ³ (Ireland) | Europe Occupational Exposure Limit Values |
| Guanidinium Thiocyanate (Plug 4, Wash 1) | 593-84-0 | Short-term value: None known Long-term value: None known | Europe Occupational Exposure Limit Values |
| Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy- (Plug 4) | 9002-93-1 | Short-term value: None known Long-term value: None known | Europe Occupational Exposure Limit Values |

Monitoring procedures: Use methods described in European Standards.

Derived No Effect Level (DNEL):

Isopropanol (Plug 2, Plug 3, Wash 1)

| | | | |
|--------------------|------------|----------------------------|-----------------------|
| Workers | Inhalation | Long-term systemic effects | 500 mg/m ³ |
| Workers | Dermal | Long-term systemic effects | 888 mg/kg bw/day |
| General population | Inhalation | Long-term systemic effects | 89 mg/m ³ |
| General population | Dermal | Long-term systemic effects | 319 mg/kg bw/day |
| General population | Oral | Long-term systemic effects | 26 mg/kg bw/day |

Guanidinium Thiocyanate (Plug 4, Wash 1)

| | | | |
|---------|------------|----------------------------|-------------------------|
| Workers | Inhalation | Long-term systemic effects | 1.092 mg/m ³ |
|---------|------------|----------------------------|-------------------------|

| | | | |
|--------------------|------------|-----------------------------|------------------------|
| Workers | Inhalation | Short-term systemic effects | 3.28 mg/m ³ |
| Workers | Dermal | Long-term systemic effects | 0.31 mg/kg bw/day |
| General population | Inhalation | Long-term systemic effects | 0.27 mg/m ³ |
| General population | Dermal | Long-term systemic effects | 0.155 mg/kg bw/day |
| General population | Oral | Long-term systemic effects | 0.155 mg/kg bw/day |

Poly(oxy-1,2-ethanediyl), α -[4-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- (Plug 4)

None known

Predicted No Effect Concentration (PNEC):**Isopropanol (Plug 2, Plug 3, Wash 1)**

| Compartment | Value |
|-----------------------------------|-----------------------|
| Fresh water | 140.9 mg/L |
| Marine water | 140.9 mg/L |
| Sewage treatment plant | 2251 mg/L |
| Fresh water sediment | 552 mg/kg sediment dw |
| Marine sediment | 552 mg/kg sediment dw |
| Soil | 28 mg/kg soil dw |
| Secondary poisoning for predators | 160 mg/kg food |

Guanidinium Thiocyanate (Plug 4, Wash 1)

| Compartment | Value |
|------------------------|----------------------------|
| Fresh water | 194 μ g/L |
| Marine water | 19.4 μ g/L |
| Sewage treatment plant | 20 mg/L |
| Fresh water sediment | 750 μ g/kg sediment dw |
| Marine sediment | 75 μ g/kg sediment dw |
| Soil | 37 μ g/kg soil dw |

Poly(oxy-1,2-ethanediyl), α -[4-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- (Plug 4)

None known

8.2 Exposure controls**Appropriate Engineering Measures**

No special ventilation requirements. Apply technical measures to comply with the occupational exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Ensure adequate ventilation to keep airborne concentrations low. Do not empty waste into water drains.

Individual protection measures, such as personal protective equipment:

Eye and face protection: Not required under normal conditions of use.

Skin protection:

Hand protection: Not required under normal conditions of use.

Other skin protection: Not required under normal conditions of use. Wash hands after use.

Respiratory protection: Not required under normal conditions of use.

Thermal hazards: None known.

Environmental exposure controls: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains or water systems.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

| | |
|---|--|
| Physical State: | Liquid. PCR tube mix is solid |
| Colour: | Mixture - Black. Plug 1 - Colourless. Plug 2 - Colourless. Plug 3 - Colourless. Plug 4 - Colourless. Wash 1 - Colourless. Wash 2 - Colourless. Elution - Colourless. PCR Tube - White. |
| Odour and odour threshold: | Mixture - Odourless. Plug 1 - Odourless. Plug 2 - Odourless. Plug 3 - Odourless Plug 4 - Odourless Wash 1 - Odourless. Wash 2 - Odourless Elution - Odourless PCR Tube - Not available |
| Melting point/Freezing point: | Not available |
| Boiling point or initial boiling point and boiling range: | Not available |
| Flammability: | Contains flammable liquid |
| Lower and upper explosion limit:: | |
| Lower (%): | Not available |
| Upper (%): | Not available |
| Flash point: | Mixture - Closed cup: 27°C Plug 1 - Not available Plug 2 - Closed cup: 11.7°C Plug 3 - Closed cup: 11.7°C Plug 4 - Not available. Wash 1 - Closed cup: 21°C Wash 2 - Not available. Elution - Not available. PCR Tube - Not available. |
| Auto-ignition temperature: | Not available |
| Decomposition temperature: | Not available |
| pH: | Mixture - 5.5 Plug 1 - Not available Plug 2 - Not available. Plug 3 - Not available. Plug 4 - Not available. Wash 1 - Not available. Wash 2 - Not available. Elution - Not available. |

PCR Tube - Not available.

Kinematic viscosity: Not available
Solubility: Not available
Partition coefficient
n-octanol/water (log value): Not available
Vapour pressure: Not available
Density and/or relative density: Not available
Relative vapour density: Not available
Decomposition temperature: Not available
Particle characteristics: Not available

9.2 Other information:

Information with Regard to
Physical Hazard Classes: None known
Other Safety Characteristics: None known

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

This product is not expected to be reactive under normal handling and storage conditions.

10.2 Chemical stability

Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials

Strong oxidizing agents and moisture

10.6 Hazardous Decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute toxicity: Harmful if swallowed, in contact with skin or if inhaled.

| Product/ingredient name | Test | Species | Dose |
|---|-----------------|---------|-----------------|
| Isopropanol (Plug 2, Plug 3, Wash 1) | LD50 Oral | Rat | 5840 mg/kg |
| | LD50 Dermal | Rabbit | 16.4 mL/kg |
| | LC50 Inhalation | Rat | > 10,000 ppm 4h |
| Guanidinium Thiocyanate (Plug 4, Wash 1) | LD50 Oral | Rat | 354 mg/kg |
| | LD50 Dermal | Rabbit | > 2 000 mg/kg |
| | LC50 Inhalation | Rat | > 17273 mg/L 4h |

| Product/ingredient name | Test | Species | Dose |
|---|---|----------------------|--|
| Poly(oxy-1,2-ethanediyl), α -[4-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- (Plug 4) | LD50 Oral LD50 Dermal LC50 Inhalation | Rat Rabbit Rat | None known None known None known |

| | |
|---|---|
| Skin corrosion/irritation: | Causes severe skin burns (Plug 4, Wash 1). |
| Serious eye damage/eye irritation: | Causes serious eye damage (Plug 4, Wash 1). Causes serious eye irritation (Plug 2, Plug 3) |
| Respiratory or skin sensitization: | Not expected to cause respiratory sensitization. Not expected to cause skin sensitization or allergic reaction. |
| Germ cell mutagenicity: | This product is not expected to cause genetic defects. |
| Carcinogenicity: | This product is not expected to cause cancer. |
| Reproductive toxicity: | Not expected to cause damage to fertility or the unborn child. |
| STOT – Single exposure: | May cause drowsiness or dizziness after a single exposure (Plug 2, Plug 3, Wash 1). |
| STOT – Repeat exposure: | This product is not expected to cause specific target organ toxicity after prolonged or repeated exposure. |
| Aspiration hazard: | Not expected to cause an aspiration hazard. |
| 11.2 Information on other hazards: | |
| Endocrine disrupting properties: | Poly(oxy-1,2-ethanediyl), α -[(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- is classified as having endocrine disrupting properties and is on the Candidate List of substances of very high concern. |
| Information on other hazards: | None known. |

SECTION 12: ECOLOGICAL INFORMATION
12.1 Toxicity:

| Substance name | Toxicity to fish / other aquatic invertebrates |
|---|--|
| Isopropanol (Plug 2, Plug 3, Wash 1) | Fish - LC50 Pimephales promelas 9640 mg/L 96 h Invertebrates - EC50 Daphnia magna 13299 mg/L 48 h Algae - EC50 Desmodesmus subspicatus >1000 mg/L 96 h |
| Guanidinium Thiocyanate (Plug 4, Wash 1) | Fish - LC50 Poecilia reticulata 89.1 mg/l 96 h Invertebrates - EC50 Daphnia magna 42.4 mg/L 48 h |
| Poly(oxy-1,2-ethanediyl), α -[4-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- (Plug 4) | Fish - LC50 Pimephales promelas 4 - 8.9 mg/l 96 h Invertebrates - EC50 Daphnia magna 18 - 26 mg/L 48 h |

12.2 Persistence and Degradability:

No data available for this product

| | | |
|------------------------------------|----------------------------|---------------|
| <i>Luminex</i> [®] | SAFETY DATA SHEET | |
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12.3 Bioaccumulative potential:

Isopropanol (Plug 2, Plug 3, Wash 1) - LogPow -0.05 Low potential

12.4 Mobility in soil:

No data available for this product

12.5 Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Poly(oxy-1,2-ethanediyl), α -[(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- is classified as having endocrine disrupting properties and is on the Candidate List of substances of very high concern.

12.7 Other adverse effects:

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Methods of disposal

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous Waste

The classification of the product may meet the criteria for a hazardous waste.

Contaminated packaging – methods of disposal

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered where recycling is not feasible.

Special precautions

This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid disposal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

International transport regulations

14.1 UN number:

ADR/RID/ADN: UN 1219

IMDG: UN 1219

IATA: UN 1219

14.2 Proper shipping name:

ADR/RID/ADN: ISOPROPYL ALCOHOL solution

IMDG: ISOPROPYL ALCOHOL solution

IATA: ISOPROPYL ALCOHOL solution

| | | |
|---|------|--------------|
| Isopropanol (Plug 2, Plug 3, Wash 1) | 135 | WGK 1 |
| Guanidinium Thiocyanate (Plug 4, Wash 1) | 3666 | WGK 2 |
| Poly(oxy-1,2-ethanediyl), α -[4-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- (Plug 4) | 8602 | WGK2 |
| PRODUCT | | WGK 2 |

NWG - non-hazardous to water

WGK1 - slightly hazardous to water

WGK2 - obviously hazardous to water

WGK3 - highly hazardous to water.

Substances that are currently not published with a WGK classification in the Bundesanzeiger must be regarded as highly hazardous to water (WGK 3) for reasons of precaution.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out on this product.

Section 16: OTHER INFORMATION

Full text of H and P-Statements referred to under sections 2 and 3.

| | |
|-----------------|--|
| Flam Liq | Flammable Liquid |
| Acute Tox | Acute Toxicity |
| Skin Corr | Skin Corrosion |
| Skin Irrit | Skin Irritation |
| Eye Irrit | Eye Irritation |
| Eye Dam | Eye damage |
| STOT SE | Specific Target Organ Toxicity Single Exposure |
| Aquatic chronic | Aquatic long term chronic exposure |

H225 Highly flammable liquid and vapour

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

H412 Harmful to aquatic life with long lasting effects

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P235 Keep cool.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/ lighting] equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/ vapours/spray.

P264 Wash thoroughly after handling

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

| | |
|----------------|--|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER/doctor |
| P312 | Call a POISON CENTRE/doctor if you feel unwell. |
| P321 | Specific treatment (see sections 4 to 8 on this SDS and any further information on the label). |
| P330 | Rinse mouth. |
| P337+P313 | If eye irritation persists: Get medical advice/attention |
| P362+P364 | Take off contaminated clothing and wash it before reuse |
| P370+P378 | In case of fire: Use water spray (fog), carbon dioxide (CO ₂), dry chemical powder or foam to extinguish. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P405 | Store locked up |
| P501 | Dispose of contents/container to a suitable disposal site in accordance with local/regional/national/international regulations |

Training advice: Before using/handling the product one must read carefully present SDS.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|---|--|
| Plug 2 Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 | On basis of test data Calculation method Calculation method |
| Plug 3 Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 | On basis of test data Calculation method Calculation method |
| Plug 4 Skin Corr 1C H314 Acute Tox 4, oral, H302 Acute Tox 4, dermal, H312 Eye Dam 1 H318 Acute Tox 4, inhalation, H332 Aquatic chronic 3 H412 | Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method |
| Wash 1 Flam. Liq. 2, H225 STOT SE 3, H336 Skin Corr 1C H314 Eye Dam 1 H318 | On basis of test data Calculation method Calculation method Calculation method |

Abbreviations and acronyms:

| | |
|---------|--|
| ADR: | Accord européen sur le transport des marchandises dangereuses par Route (European) |
| CAS: | Chemical Abstracts Service (division of the American Chemical Society) |
| CLP: | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures |
| DNEL: | Derived No Effect Level |
| EC50: | Half maximal effective concentration |
| EINECS: | European Inventory of Existing Commercial Chemical Substances |

| | |
|---------|--|
| EU: | European Union |
| GHS: | Globally Harmonized System of Classification and Labeling of Chemicals |
| IATA: | International Air Transport Association |
| IBC: | International Bulk Code |
| IMDG: | International Maritime Code for Dangerous Goods |
| IOELV: | Indicative Occupational Exposure Limit Value |
| LC50: | Lethal concentration, 50 percent |
| LD50: | Lethal dose, 50 percent |
| MARPOL: | International Convention for the Prevention of Pollution from Ships |
| OEL: | Occupational Exposure Level |
| PBT: | Persistent, Bioaccumulative and Toxic |
| PNEC: | Predicted No Effect Level |
| REACH: | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| SCBA: | Self Contained Breathing Apparatus |
| SCL: | Specific Concentration Limits |
| UN: | United Nations |
| VPvB: | Very Persistent and very Bioaccumulative |
| WEL: | Workplace Exposure Limit |

Additional information:

Concentration breakdown for whole mixture:

| | | |
|----------|------------------------------------|--|
| Plug 1 | 100 µl = 5.4% | Non haz |
| Plug 2 | 70 µl = 3.8% | Flam. Liq. 2, H225, Eye Irrit. 2, H319, STOT SE 3, H336 |
| Plug 3 | 225 µl = 12.2% | Flam. Liq. 2, H225, Eye Irrit. 2, H319, STOT SE 3, H336 |
| Plug 4 | 500 µl = 27.2% | Skin Corr 1C H314, Acute Tox 4, oral, H302, Acute Tox 4, dermal, H312, Eye Dam 1 H318, Acute Tox 4, inhalation, H332, Aquatic chronic 3 H412 |
| Wash 1 | 380 µl = 20.7% | Flam. Liq. 2, H225, STOT SE 3, H336, Skin Corr 1C H314, Eye Dam 1 H318 |
| Wash 2 | 380 µl = 20.7% | Non haz |
| Elution | 165 µl = 9.0% | Non haz |
| PCR Tube | 20 mg (equivalent to 20 µl) = 1.1% | Non haz |

Total volume of full kit: 1840 µl

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