

SAFETY DATA SHEET

pCMV-Script Vector, Part Number 212220

Section 1. Identification

| | |
|---|---|
| Product identifier | : pCMV-Script Vector, Part Number 212220 |
| Part no. (chemical kit) | : 212220 |
| Part no. | : pCMV-Script vector 212220-51 XL1-Blue MRF' E.coli Strain 200301-81 |
| Material uses | : Analytical reagent. pCMV-Script vector 0.02 ml (20 µg 1 µg/µl) XL1-Blue MRF' E.coli Strain 0.5 ml |
| Supplier/Manufacturer | : Agilent Technologies, Inc. 5301 Stevens Creek Blvd Santa Clara, CA 95051, USA 800-227-9770 |
| Emergency telephone number (with hours of operation) | : CHEMTREC®: 1-800-424-9300 |

Section 2. Hazard identification

Classification of the substance or mixture

XL1-Blue MRF' E.coli Strain
H319 EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms : XL1-Blue MRF' E.coli Strain



Signal word : pCMV-Script vector No signal word.
XL1-Blue MRF' E.coli Strain Warning

Hazard statements : pCMV-Script vector No known significant effects or critical hazards.
XL1-Blue MRF' E.coli Strain H319 - Causes serious eye irritation.

Precautionary statements

Prevention : pCMV-Script vector Not applicable.
XL1-Blue MRF' E.coli Strain P280 - Wear eye or face protection.

Response : pCMV-Script vector Not applicable.
XL1-Blue MRF' E.coli Strain P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage : pCMV-Script vector Not applicable.
XL1-Blue MRF' E.coli Strain Not applicable.

Disposal : pCMV-Script vector Not applicable.
XL1-Blue MRF' E.coli Strain Not applicable.

Supplemental label elements : pCMV-Script vector None known.
XL1-Blue MRF' E.coli Strain None known.

Section 2. Hazard identification

Other hazards which do not result in classification : pCMV-Script vector None known.
 XL1-Blue MRF' E.coli Strain None known.

Section 3. Composition/information on ingredients

Substance/mixture : pCMV-Script vector Mixture
 XL1-Blue MRF' E.coli Strain Mixture

| Ingredient name | % (w/w) | CAS number |
|-----------------------------|---------|------------|
| XL1-Blue MRF' E.coli Strain | | |
| Glycerol | 10 - 30 | 56-81-5 |
| Sodium chloride | 0.1 - 1 | 7647-14-5 |

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.

Section 4. First-aid measures

Description of necessary first aid measures

| | | |
|---------------------|-----------------------------|--|
| Eye contact | : pCMV-Script vector | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | XL1-Blue MRF' E.coli Strain | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. |
| Inhalation | : pCMV-Script vector | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | XL1-Blue MRF' E.coli Strain | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : pCMV-Script vector | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | XL1-Blue MRF' E.coli Strain | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : pCMV-Script vector | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| | XL1-Blue MRF' E.coli Strain | Wash out mouth with water. Remove dentures if any. |

Section 4. First-aid measures

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

| | | |
|---------------------|---|--|
| Eye contact | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No known significant effects or critical hazards. Causes serious eye irritation. |
| Inhalation | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Skin contact | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Ingestion | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. |

Over-exposure signs/symptoms

| | | |
|---------------------|---|---|
| Eye contact | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No specific data. Adverse symptoms may include the following: pain or irritation watering redness |
| Inhalation | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No specific data. No specific data. |
| Skin contact | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No specific data. No specific data. |
| Ingestion | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No specific data. No specific data. |

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

| | | |
|-----------------------------------|---|--|
| Notes to physician | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No specific treatment. No specific treatment. |
| Protection of first-aiders | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

Section 4. First-aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

| | | |
|---|-----------------------------|---|
| Suitable extinguishing media | : pCMV-Script vector | Use an extinguishing agent suitable for the surrounding fire. |
| | XL1-Blue MRF' E.coli Strain | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : pCMV-Script vector | None known. |
| | XL1-Blue MRF' E.coli Strain | None known. |
| Specific hazards arising from the chemical | : pCMV-Script vector | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | XL1-Blue MRF' E.coli Strain | In a fire or if heated, a pressure increase will occur and the container may burst. |
| Hazardous thermal decomposition products | : pCMV-Script vector | No specific data. |
| | XL1-Blue MRF' E.coli Strain | Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides |
| Special protective actions for fire-fighters | : pCMV-Script vector | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | XL1-Blue MRF' E.coli Strain | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | : pCMV-Script vector | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| | XL1-Blue MRF' E.coli Strain | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| | | |
|------------------------------------|-----------------------------|---|
| For non-emergency personnel | : pCMV-Script vector | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. |
| | XL1-Blue MRF' E.coli Strain | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear |

Section 6. Accidental release measures

| | | |
|---|---|--|
| For emergency responders | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| Environmental precautions | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Avoid dispersal of spilled 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). Avoid dispersal of spilled 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). |
| <u>Methods and materials for containment and cleaning up</u> | | |
| Methods for cleaning up | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |

Section 7. Handling and storage

Precautions for safe handling

| | | |
|---|---|--|
| Protective measures | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| Advice on general occupational hygiene | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Potentially biohazardous material. Eating, drinking |

Section 7. Handling and storage

and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : pCMV-Script vector

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

XL1-Blue MRF' E.coli Strain

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

[Control parameters](#)

[Occupational exposure limits](#)

| Ingredient name | Exposure limits |
|---|---|
| XL1-Blue MRF' E.coli Strain Glycerol | <p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours. Form: Mist</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 10 mg/m³ 8 hours. Form: mist</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. Form: mist TWA: 10 mg/m³ 8 hours. Form: mist</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 10 mg/m³ 8 hours. Form: mist</p> <p>CA British Columbia Provincial (Canada, 5/2019). TWA: 3 mg/m³ 8 hours. Form: respirable mist TWA: 10 mg/m³ 8 hours. Form: total mist</p> |

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Section 8. Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Handle as biohazard material (Biosafety level 1). Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

| | | |
|-------------------------|-----------------------------|----------------|
| Physical state | : pCMV-Script vector | Liquid. |
| | XL1-Blue MRF' E.coli Strain | Liquid. |
| Color | : pCMV-Script vector | Not available. |
| | XL1-Blue MRF' E.coli Strain | Not available. |
| Odor | : pCMV-Script vector | Not available. |
| | XL1-Blue MRF' E.coli Strain | Not available. |
| Odor threshold | : pCMV-Script vector | Not available. |
| | XL1-Blue MRF' E.coli Strain | Not available. |
| pH | : pCMV-Script vector | 7.5 |
| | XL1-Blue MRF' E.coli Strain | 7 |
| Melting point | : pCMV-Script vector | 0°C (32°F) |
| | XL1-Blue MRF' E.coli Strain | Not available. |
| Boiling point | : pCMV-Script vector | 100°C (212°F) |
| | XL1-Blue MRF' E.coli Strain | Not available. |
| Flash point | : pCMV-Script vector | Not available. |
| | XL1-Blue MRF' E.coli Strain | Not available. |
| Evaporation rate | : pCMV-Script vector | Not available. |
| | XL1-Blue MRF' E.coli Strain | Not available. |

Section 9. Physical and chemical properties

| | | |
|---|---|---|
| Flammability (solid, gas) | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Not applicable. Not applicable. |
| Lower and upper explosive (flammable) limits | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Not available. Not available. |
| Vapor pressure | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Not available. Not available. |
| Vapor density | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Not available. Not available. |
| Relative density | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Not available. Not available. |
| Solubility | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. |
| Partition coefficient: n-octanol/water | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Not available. Not available. |
| Auto-ignition temperature | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Not available. Not available. |
| Decomposition temperature | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Not available. Not available. |
| Viscosity | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Not available. Not available. |

Section 10. Stability and reactivity

| | | |
|---|---|--|
| Reactivity | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | The product is stable. The product is stable. |
| Possibility of hazardous reactions | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | No specific data. No specific data. |
| Incompatible materials | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. |
| Hazardous decomposition products | : pCMV-Script vector XL1-Blue MRF' E.coli Strain | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|------------------------------------|-----------|---------|-------------|----------|
| XL1-Blue MRF' E.coli Strain | | | | |
| Glycerol | LD50 Oral | Rat | 12600 mg/kg | - |
| Sodium chloride | LD50 Oral | Rat | 3000 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|------------------------------------|--------------------------|---------|-------|-----------------|-------------|
| XL1-Blue MRF' E.coli Strain | | | | | |
| Glycerol | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| Sodium chloride | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 10 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : pCMV-Script vector Not available.
XL1-Blue MRF' E.coli Strain Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : pCMV-Script vector No known significant effects or critical hazards.
XL1-Blue MRF' E.coli Strain Causes serious eye irritation.

Inhalation : pCMV-Script vector No known significant effects or critical hazards.
XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.

Skin contact : pCMV-Script vector No known significant effects or critical hazards.
XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.

Section 11. Toxicological information

Ingestion : pCMV-Script vector No known significant effects or critical hazards.
 XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : pCMV-Script vector No specific data.
 XL1-Blue MRF' E.coli Strain Adverse symptoms may include the following:
 pain or irritation
 watering
 redness

Inhalation : pCMV-Script vector No specific data.
 XL1-Blue MRF' E.coli Strain No specific data.

Skin contact : pCMV-Script vector No specific data.
 XL1-Blue MRF' E.coli Strain No specific data.

Ingestion : pCMV-Script vector No specific data.
 XL1-Blue MRF' E.coli Strain No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General : pCMV-Script vector No known significant effects or critical hazards.
 XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.

Carcinogenicity : pCMV-Script vector No known significant effects or critical hazards.
 XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.

Mutagenicity : pCMV-Script vector No known significant effects or critical hazards.
 XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.

Teratogenicity : pCMV-Script vector No known significant effects or critical hazards.
 XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.

Developmental effects : pCMV-Script vector No known significant effects or critical hazards.
 XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.

Fertility effects : pCMV-Script vector No known significant effects or critical hazards.
 XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|------------------------------------|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| XL1-Blue MRF' E.coli Strain | | | | | |
| XL1-Blue MRF' E.coli Strain | 300000 | N/A | N/A | N/A | N/A |
| Glycerol | 12600 | N/A | N/A | N/A | N/A |
| Sodium chloride | 3000 | N/A | N/A | N/A | N/A |

Section 11. Toxicological information

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|-------------------------------------|---|----------|
| XL1-Blue MRF' E.coli Strain Glycerol Sodium chloride | Acute LC50 54000 mg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute EC50 4.74 g/L Fresh water | Algae - Chlamydomonas reinhardtii | 96 hours |
| | Acute EC50 519.6 mg/l Fresh water | Crustaceans - Cypris subglobosa | 48 hours |
| | Acute IC50 6.87 g/L Fresh water | Aquatic plants - Lemna minor | 96 hours |
| | Acute LC50 1000000 µg/l Fresh water | Fish - Morone saxatilis - Larvae | 96 hours |
| | Chronic LC10 781 mg/l Fresh water | Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling) | 3 weeks |
| | Chronic NOEC 6 g/L Fresh water | Aquatic plants - Lemna minor | 96 hours |
| Chronic NOEC 0.314 g/L Fresh water | Daphnia - Daphnia pulex | 21 days | |
| Chronic NOEC 100 mg/l Fresh water | Fish - Gambusia holbrooki - Adult | 8 weeks | |

Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|--|--|----------------|------|----------|
| XL1-Blue MRF' E.coli Strain Glycerol | 301D Ready Biodegradability - Closed Bottle Test | 93 % - 30 days | - | - |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|-----|-----------|
| XL1-Blue MRF' E.coli Strain Glycerol | -1.76 | - | low |

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times 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. Waste packaging should be recycled. Incineration or

Section 13. Disposal considerations

landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

TDG / IMDG / IATA : Not regulated.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Europe** : All components are listed or exempted.
- Japan** : **Japan inventory (ENCS):** All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
- New Zealand** : All components are listed or exempted.
- Philippines** : All components are listed or exempted.
- Republic of Korea** : All components are listed or exempted.
- Taiwan** : All components are listed or exempted.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : All components are active or exempted.
- Viet Nam** : All components are listed or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 06/03/2020
Date of previous issue : 03/26/2018
Version : 5

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 HPR = Hazardous Products Regulations
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 UN = United Nations

Procedure used to derive the classification

| Classification | Justification |
|--|--------------------|
| <input checked="" type="checkbox"/> L1-Blue MRF' E.coli Strain EYE IRRITATION - Category 2A | Calculation method |

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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