Conforms to HPR 2015

SAFETY DATA SHEET

Agilent Technologies

pMC1neo and pMC1neo Poly(A) Vectors, Part Number 213201

Section 1. Identification

Product identifier : pMC1neo and pMC1neo Poly(A) Vectors, Part Number 213201

Part no. (chemical kit) : 213201

Part no. :

pMC1neo Vector	213201-51
pMC1neo Poly A	213201-52
AG1 E. coli Strain	200274-81

Material uses : Analytical reagent.

pMC1neo Vector	25 µl (25 µg	1 µg/µl)
pMC1neo Poly A	25 µl (25 µg	1 µg/µl)
AG1 E. coli Strain	500 µl	

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

AG1 E. coli Strain

H319 EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms : AG1 E. coli Strain

Signal word :

pMC1neo Vector	No signal word.
pMC1neo Poly A	No signal word.
AG1 E. coli Strain	Warning

Hazard statements :

pMC1neo Vector	No known significant effects or critical hazards.
pMC1neo Poly A	No known significant effects or critical hazards.
AG1 E. coli Strain	H319 - Causes serious eye irritation.

Precautionary statements

Prevention :

pMC1neo Vector	Not applicable.
pMC1neo Poly A	Not applicable.
AG1 E. coli Strain	P280 - Wear eye or face protection.

Response :

pMC1neo Vector	Not applicable.
pMC1neo Poly A	Not applicable.
AG1 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 :

pMC1neo Vector	Not applicable.
pMC1neo Poly A	Not applicable.
AG1 E. coli Strain	Not applicable.

Section 2. Hazard identification

Disposal	:	pMC1neo Vector	Not applicable.
		pMC1neo Poly A	Not applicable.
		AG1 E. coli Strain	Not applicable.
Supplemental label elements	:	pMC1neo Vector	None known.
		pMC1neo Poly A	None known.
		AG1 E. coli Strain	None known.
Other hazards which do not result in classification	:	pMC1neo Vector	None known.
		pMC1neo Poly A	None known.
		AG1 E. coli Strain	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	pMC1neo Vector	Mixture
		pMC1neo Poly A	Mixture
		AG1 E. coli Strain	Mixture

Ingredient name	% (w/w)	CAS number
AG1 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	:	pMC1neo 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.
		pMC1neo Poly A	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.
		AG1 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	:	pMC1neo Vector	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		pMC1neo Poly A	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		AG1 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.

Section 4. First-aid measures

Skin contact

: pMC1neo Vector — Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

pMC1neo Poly A — Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

AG1 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

: pMC1neo Vector — Wash out mouth with water. 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.

pMC1neo Poly A — Wash out mouth with water. 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.

AG1 E. coli Strain — Wash out mouth with water. Remove dentures if any. 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

: pMC1neo Vector — No known significant effects or critical hazards.

pMC1neo Poly A — No known significant effects or critical hazards.

AG1 E. coli Strain — Causes serious eye irritation.

Inhalation

: pMC1neo Vector — No known significant effects or critical hazards.

pMC1neo Poly A — No known significant effects or critical hazards.

AG1 E. coli Strain — No known significant effects or critical hazards.

Skin contact

: pMC1neo Vector — No known significant effects or critical hazards.

pMC1neo Poly A — No known significant effects or critical hazards.

AG1 E. coli Strain — No known significant effects or critical hazards.

Ingestion

: pMC1neo Vector — No known significant effects or critical hazards.

pMC1neo Poly A — No known significant effects or critical hazards.

AG1 E. coli Strain — No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact

: pMC1neo Vector — No specific data.

pMC1neo Poly A — No specific data.

AG1 E. coli Strain — Adverse symptoms may include the following:
pain or irritation
watering
redness

Section 4. First-aid measures

Inhalation	:	pMC1neo Vector	No specific data.
		pMC1neo Poly A	No specific data.
		AG1 E. coli Strain	No specific data.
Skin contact	:	pMC1neo Vector	No specific data.
		pMC1neo Poly A	No specific data.
		AG1 E. coli Strain	No specific data.
Ingestion	:	pMC1neo Vector	No specific data.
		pMC1neo Poly A	No specific data.
		AG1 E. coli Strain	No specific data.

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

Notes to physician	:	pMC1neo Vector	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pMC1neo Poly A	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		AG1 E. coli Strain	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	pMC1neo Vector	No specific treatment.
		pMC1neo Poly A	No specific treatment.
		AG1 E. coli Strain	No specific treatment.
Protection of first-aiders	:	pMC1neo Vector	No action shall be taken involving any personal risk or without suitable training.
		pMC1neo Poly A	No action shall be taken involving any personal risk or without suitable training.
		AG1 E. coli Strain	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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	:	pMC1neo Vector	Use an extinguishing agent suitable for the surrounding fire.
		pMC1neo Poly A	Use an extinguishing agent suitable for the surrounding fire.
		AG1 E. coli Strain	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	pMC1neo Vector	None known.
		pMC1neo Poly A	None known.
		AG1 E. coli Strain	None known.
Specific hazards arising from the chemical	:	pMC1neo Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
		pMC1neo Poly A	In a fire or if heated, a pressure increase will occur and the container may burst.
		AG1 E. coli Strain	In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products	:	pMC1neo Vector	No specific data.
		pMC1neo Poly A	No specific data.
		AG1 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	:	pMC1neo 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.
		pMC1neo Poly A	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.
		AG1 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	:	pMC1neo Vector	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		pMC1neo Poly A	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		AG1 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	:	pMC1neo 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.
		pMC1neo Poly A	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.
		AG1 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 appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Section 6. Accidental release measures

For emergency responders	:	pMC1neo Vector	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".
		pMC1neo Poly A	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".
		AG1 E. coli Strain	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	:	pMC1neo Vector	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).
		pMC1neo Poly A	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).
		AG1 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).

Methods and materials for containment and cleaning up

Methods for cleaning up	:	pMC1neo Vector	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.
		pMC1neo Poly A	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.
		AG1 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.

Section 7. Handling and storage

Precautions for safe handling

Section 7. Handling and storage

Protective measures	:	pMC1neo Vector	Put on appropriate personal protective equipment (see Section 8).
		pMC1neo Poly A	Put on appropriate personal protective equipment (see Section 8).
		AG1 E. coli Strain	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	:	pMC1neo Vector	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.
		pMC1neo Poly A	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.
		AG1 E. coli Strain	Potentially biohazardous material. 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.
Conditions for safe storage, including any incompatibilities	:	pMC1neo 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.
		pMC1neo Poly A	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.
		AG1 E. coli Strain	Store in accordance with local regulations. Store in original container protected from direct sunlight in a

Section 7. Handling and storage

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
AG1 E. coli Strain Glycerol	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 10 mg/m³ 8 hours. Form: Mist **CA Quebec Provincial (Canada, 7/2019).** TWAEV: 10 mg/m³ 8 hours. Form: mist **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 20 mg/m³ 15 minutes. Form: mist TWA: 10 mg/m³ 8 hours. Form: mist **CA British Columbia Provincial (Canada, 1/2021).** TWA: 3 mg/m³ 8 hours. Form: respirable mist TWA: 10 mg/m³ 8 hours. Form: total mist

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

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: chemical splash goggles.

Skin protection

Section 8. Exposure controls/personal 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state :

pMC1neo Vector	Liquid.
pMC1neo Poly A	Liquid.
AG1 E. coli Strain	Liquid.

Color :

pMC1neo Vector	Not available.
pMC1neo Poly A	Not available.
AG1 E. coli Strain	Not available.

Odor :

pMC1neo Vector	Not available.
pMC1neo Poly A	Not available.
AG1 E. coli Strain	Not available.

Odor threshold :

pMC1neo Vector	Not available.
pMC1neo Poly A	Not available.
AG1 E. coli Strain	Not available.

pH :

pMC1neo Vector	7.5
pMC1neo Poly A	7.5
AG1 E. coli Strain	7.5

Melting point/freezing point :

pMC1neo Vector	0°C (32°F)
pMC1neo Poly A	0°C (32°F)
AG1 E. coli Strain	Not available.

Boiling point, initial boiling point, and boiling range :

pMC1neo Vector	100°C (212°F)
pMC1neo Poly A	100°C (212°F)
AG1 E. coli Strain	Not available.

Flash point :

	Closed cup			Open cup		
Ingredient name	**°C**	**°F**	**Method**	**°C**	**°F**	**Method**
pMC1neo Vector						
Edetic acid	>100	>212	DIN 51758			
pMC1neo Poly A						
Edetic acid	>100	>212	DIN 51758			

Section 9. Physical and chemical properties and safety characteristics

AG1 E. coli Strain						
Glycerol			Pensky-Martens	177	350.6	

Evaporation rate :
pMC1neo Vector — Not available.
pMC1neo Poly A — Not available.
AG1 E. coli Strain — Not available.

Flammability :
pMC1neo Vector — Not applicable.
pMC1neo Poly A — Not applicable.
AG1 E. coli Strain — Not applicable.

Lower and upper explosion limit/flammability limit :
pMC1neo Vector — Not available.
pMC1neo Poly A — Not available.
AG1 E. coli Strain — Not available.

Vapor pressure :

Ingredient name	Vapor Pressure at 20˚C			Vapor pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
pMC1neo Vector						
Water	23.8	3.2				
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0	0		0.000007501	0.000001	
pMC1neo Poly A						
Water	23.8	3.2				
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0	0		0.000007501	0.000001	
AG1 E. coli Strain						
Water	23.8	3.2				
Glycerol	0	0		0	0	

Relative vapor density :
pMC1neo Vector — Not available.
pMC1neo Poly A — Not available.
AG1 E. coli Strain — Not available.

Relative density :
pMC1neo Vector — Not available.
pMC1neo Poly A — Not available.
AG1 E. coli Strain — Not available.

Solubility :
pMC1neo Vector — Easily soluble in the following materials: cold water and hot water.
pMC1neo Poly A — Easily soluble in the following materials: cold water and hot water.
AG1 E. coli Strain — Soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water :
pMC1neo Vector — Not applicable.
pMC1neo Poly A — Not applicable.
AG1 E. coli Strain — Not applicable.

Auto-ignition temperature :

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	°C	°F	Method
pMC1neo Vector			
Edetic acid	>400	>752	VDI 2263
pMC1neo Poly A			
Edetic acid	>400	>752	VDI 2263
AG1 E. coli Strain			
Glycerol	370	698	

Decomposition temperature :
pMC1neo Vector — Not available.
pMC1neo Poly A — Not available.
AG1 E. coli Strain — Not available.

Viscosity :
pMC1neo Vector — Not available.
pMC1neo Poly A — Not available.
AG1 E. coli Strain — Not available.

Particle characteristics

Median particle size :
pMC1neo Vector — Not applicable.
pMC1neo Poly A — Not applicable.
AG1 E. coli Strain — Not applicable.

Section 10. Stability and reactivity

Reactivity :
pMC1neo Vector — No specific test data related to reactivity available for this product or its ingredients.
pMC1neo Poly A — No specific test data related to reactivity available for this product or its ingredients.
AG1 E. coli Strain — No specific test data related to reactivity available for this product or its ingredients.

Chemical stability :
pMC1neo Vector — The product is stable.
pMC1neo Poly A — The product is stable.
AG1 E. coli Strain — The product is stable.

Possibility of hazardous reactions :
pMC1neo Vector — Under normal conditions of storage and use, hazardous reactions will not occur.
pMC1neo Poly A — Under normal conditions of storage and use, hazardous reactions will not occur.
AG1 E. coli Strain — Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid :
pMC1neo Vector — No specific data.
pMC1neo Poly A — No specific data.
AG1 E. coli Strain — No specific data.

Incompatible materials :
pMC1neo Vector — May react or be incompatible with oxidizing materials.
pMC1neo Poly A — May react or be incompatible with oxidizing materials.
AG1 E. coli Strain — May react or be incompatible with oxidizing materials.

Section 10. Stability and reactivity

Hazardous decomposition products :

pMC1neo Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
pMC1neo Poly A	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
AG1 E. coli Strain	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
AG1 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
AG1 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 :

pMC1neo Vector	Not available.
pMC1neo Poly A	Not available.
AG1 E. coli Strain	Routes of entry anticipated: Oral, Dermal, Inhalation.

Section 11. Toxicological information

Potential acute health effects

Eye contact	:	pMC1neo Vector	No known significant effects or critical hazards.
		pMC1neo Poly A	No known significant effects or critical hazards.
		AG1 E. coli Strain	Causes serious eye irritation.
Inhalation	:	pMC1neo Vector	No known significant effects or critical hazards.
		pMC1neo Poly A	No known significant effects or critical hazards.
		AG1 E. coli Strain	No known significant effects or critical hazards.
Skin contact	:	pMC1neo Vector	No known significant effects or critical hazards.
		pMC1neo Poly A	No known significant effects or critical hazards.
		AG1 E. coli Strain	No known significant effects or critical hazards.
Ingestion	:	pMC1neo Vector	No known significant effects or critical hazards.
		pMC1neo Poly A	No known significant effects or critical hazards.
		AG1 E. coli Strain	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	pMC1neo Vector	No specific data.
		pMC1neo Poly A	No specific data.
		AG1 E. coli Strain	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	pMC1neo Vector	No specific data.
		pMC1neo Poly A	No specific data.
		AG1 E. coli Strain	No specific data.
Skin contact	:	pMC1neo Vector	No specific data.
		pMC1neo Poly A	No specific data.
		AG1 E. coli Strain	No specific data.
Ingestion	:	pMC1neo Vector	No specific data.
		pMC1neo Poly A	No specific data.
		AG1 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	:	pMC1neo Vector	No known significant effects or critical hazards.
		pMC1neo Poly A	No known significant effects or critical hazards.
		AG1 E. coli Strain	No known significant effects or critical hazards.
Carcinogenicity	:	pMC1neo Vector	No known significant effects or critical hazards.
		pMC1neo Poly A	No known significant effects or critical hazards.
		AG1 E. coli Strain	No known significant effects or critical hazards.
Mutagenicity	:	pMC1neo Vector	No known significant effects or critical hazards.
		pMC1neo Poly A	No known significant effects or critical hazards.
		AG1 E. coli Strain	No known significant effects or critical hazards.
Reproductive toxicity	:	pMC1neo Vector	No known significant effects or critical hazards.
		pMC1neo Poly A	No known significant effects or critical hazards.
		AG1 E. coli Strain	No known significant effects or critical hazards.

Section 11. Toxicological information

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)
AG1 E. coli Strain					
AG1 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

Other information : pMC1neo Vector — Not available.
pMC1neo Poly A — Not available.
AG1 E. coli Strain — Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
AG1 E. coli Strain			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Sodium chloride	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
AG1 E. coli Strain				
Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
AG1 E. coli Strain			
Glycerol	-1.76	-	low

Mobility in soil

Section 12. Ecological information

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 landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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.

Section 15. Regulatory information

Europe : All components are listed or exempted.

Japan : **Japan inventory (CSCL)**: 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 : 09/30/2021

Date of previous issue : 05/23/2019

Version : 6

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
AG1 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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