

SAFETY DATA SHEET

PathDetect cJun trans Reporting System, Part Number 219000

Section 1. Identification

1.1 Product identifier

Product name : PathDetect cJun trans Reporting System, Part Number 219000
Part No. (Chemical Kit) : 219000
Part No. :
 pFR-Luc Plasmid (Reporter Plasmid) : 219050-51
 pFA2-cJun Plasmid : 219052-51
 pFC2-dbd : 219055-51
 pFC-MEKK Plasmid (Positive Control) : 219058-51
Validation date : 12/31/2017

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

Material uses : Analytical reagent.
 pFR-Luc Plasmid (Reporter Plasmid) : 0.05 ml (50 µg 1 µg/µl)
 pFA2-cJun Plasmid : 0.2 ml
 pFC2-dbd : 0.08 ml (2 µg 25 ng/µl)
 pFC-MEKK Plasmid (Positive Control) : 0.2 ml (5 µg 25 ng/µl)

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA
 800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status :	pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This
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Section 2. Hazards identification

SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

Not classified.

2.2 GHS label elements

Signal word	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No signal word. No signal word. No signal word. No signal word.
Hazard statements	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Precautionary statements		
Prevention	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not applicable. Not applicable. Not applicable. Not applicable.
Response	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not applicable. Not applicable. Not applicable. Not applicable.
Storage	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not applicable. Not applicable. Not applicable. Not applicable.
Disposal	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not applicable. Not applicable. Not applicable. Not applicable.
Supplemental label elements	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	None known. None known. None known. None known.

2.3 Other hazards

Section 2. Hazards identification

Hazards not otherwise classified	:	pFR-Luc Plasmid (Reporter Plasmid)	None known.
		pFA2-cJun Plasmid	None known.
		pFC2-dbd	None known.
		pFC-MEKK Plasmid (Positive Control)	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	pFR-Luc Plasmid (Reporter Plasmid)	Mixture
		pFA2-cJun Plasmid	Mixture
		pFC2-dbd	Mixture
		pFC-MEKK Plasmid (Positive Control)	Mixture

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no 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

4.1 Description of necessary first aid measures

Eye contact	:	pFR-Luc Plasmid (Reporter Plasmid)	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.
		pFA2-cJun Plasmid	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.
		pFC2-dbd	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.
		pFC-MEKK Plasmid (Positive Control)	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.
Inhalation	:	pFR-Luc Plasmid (Reporter Plasmid)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		pFA2-cJun Plasmid	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		pFC2-dbd	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		pFC-MEKK Plasmid (Positive Control)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	:	pFR-Luc Plasmid (Reporter Plasmid)	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		pFA2-cJun Plasmid	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		pFC2-dbd	Flush contaminated skin with plenty of water.

Section 4. First aid measures

Ingestion	<p>pFC-MEKK Plasmid (Positive Control)</p> <p>: pFR-Luc Plasmid (Reporter Plasmid)</p> <p>pFA2-cJun Plasmid</p> <p>pFC2-dbd</p> <p>pFC-MEKK Plasmid (Positive Control)</p>	<p>Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	<p>: pFR-Luc Plasmid (Reporter Plasmid)</p> <p>pFA2-cJun Plasmid</p> <p>pFC2-dbd</p> <p>pFC-MEKK Plasmid (Positive Control)</p>	<p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p>
Inhalation	<p>: pFR-Luc Plasmid (Reporter Plasmid)</p> <p>pFA2-cJun Plasmid</p> <p>pFC2-dbd</p> <p>pFC-MEKK Plasmid (Positive Control)</p>	<p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p>
Skin contact	<p>: pFR-Luc Plasmid (Reporter Plasmid)</p> <p>pFA2-cJun Plasmid</p> <p>pFC2-dbd</p> <p>pFC-MEKK Plasmid (Positive Control)</p>	<p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p>

Section 4. First aid measures

Ingestion	: pFR-Luc Plasmid (Reporter Plasmid)	No known significant effects or critical hazards.
	pFA2-cJun Plasmid	No known significant effects or critical hazards.
	pFC2-dbd	No known significant effects or critical hazards.
	pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: pFR-Luc Plasmid (Reporter Plasmid)	No specific data.
	pFA2-cJun Plasmid	No specific data.
	pFC2-dbd	No specific data.
	pFC-MEKK Plasmid (Positive Control)	No specific data.

Inhalation	: pFR-Luc Plasmid (Reporter Plasmid)	No specific data.
	pFA2-cJun Plasmid	No specific data.
	pFC2-dbd	No specific data.
	pFC-MEKK Plasmid (Positive Control)	No specific data.

Skin contact	: pFR-Luc Plasmid (Reporter Plasmid)	No specific data.
	pFA2-cJun Plasmid	No specific data.
	pFC2-dbd	No specific data.
	pFC-MEKK Plasmid (Positive Control)	No specific data.

Ingestion	: pFR-Luc Plasmid (Reporter Plasmid)	No specific data.
	pFA2-cJun Plasmid	No specific data.
	pFC2-dbd	No specific data.
	pFC-MEKK Plasmid (Positive Control)	No specific data.

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

Notes to physician	: pFR-Luc Plasmid (Reporter Plasmid)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	pFA2-cJun Plasmid	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	pFC2-dbd	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	pFC-MEKK Plasmid (Positive Control)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments	: pFR-Luc Plasmid (Reporter Plasmid)	No specific treatment.
	pFA2-cJun Plasmid	No specific treatment.
	pFC2-dbd	No specific treatment.
	pFC-MEKK Plasmid (Positive Control)	No specific treatment.

Section 4. First aid measures

Protection of first-aiders	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	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. 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.
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See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	None known. None known. None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No specific data. No specific data. No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd	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. 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. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No
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Section 5. Fire-fighting measures

Special protective equipment for fire-fighters

pFC-MEKK Plasmid (Positive Control)

: pFR-Luc Plasmid (Reporter Plasmid)

pFA2-cJun Plasmid

pFC2-dbd

pFC-MEKK Plasmid (Positive Control)

action shall be taken involving any personal risk or without suitable training.

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.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: pFR-Luc Plasmid (Reporter Plasmid)

pFA2-cJun Plasmid

pFC2-dbd

pFC-MEKK Plasmid (Positive Control)

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.

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.

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.

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.

For emergency responders : pFR-Luc Plasmid (Reporter Plasmid)

pFA2-cJun Plasmid

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".

Section 6. Accidental release measures

pFC2-dbd	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".
pFC-MEKK Plasmid (Positive Control)	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".

6.2 Environmental precautions

: pFR-Luc Plasmid (Reporter Plasmid)	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).
pFA2-cJun Plasmid	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).
pFC2-dbd	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).
pFC-MEKK Plasmid (Positive Control)	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).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

: pFR-Luc Plasmid (Reporter Plasmid)	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.
pFA2-cJun Plasmid	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.
pFC2-dbd	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.
pFC-MEKK Plasmid (Positive Control)	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

7.1 Precautions for safe handling

Protective measures	<ul style="list-style-type: none"> : pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control) 	<p>Put on appropriate personal protective equipment (see Section 8).</p> <p>Put on appropriate personal protective equipment (see Section 8).</p> <p>Put on appropriate personal protective equipment (see Section 8).</p> <p>Put on appropriate personal protective equipment (see Section 8).</p>
Advice on general occupational hygiene	<ul style="list-style-type: none"> : pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control) 	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
7.2 Conditions for safe storage, including any incompatibilities	<ul style="list-style-type: none"> : pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid 	<p>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.</p> <p>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</p>

Section 7. Handling and storage

pFC2-dbd

containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. 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. 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.

pFC-MEKK Plasmid (Positive Control)

7.3 Specific end use(s)

Recommendations

: pFR-Luc Plasmid (Reporter Plasmid) Industrial applications, Professional applications.
 pFA2-cJun Plasmid Industrial applications, Professional applications.
 pFC2-dbd Industrial applications, Professional applications.
 pFC-MEKK Plasmid (Positive Control) Industrial applications, Professional applications.

Industrial sector specific solutions

: pFR-Luc Plasmid (Reporter Plasmid) Not applicable.
 pFA2-cJun Plasmid Not applicable.
 pFC2-dbd Not applicable.
 pFC-MEKK Plasmid (Positive Control) Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
None.	

8.2 Exposure controls

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.

Section 8. Exposure controls/personal protection

Individual protection measures

- Hygiene measures** : 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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	<p>pFR-Luc Plasmid (Reporter Plasmid) Liquid.</p> <p>pFA2-cJun Plasmid Liquid.</p> <p>pFC2-dbd Liquid.</p> <p>pFC-MEKK Plasmid (Positive Control) Liquid.</p>
Color	:	<p>pFR-Luc Plasmid (Reporter Plasmid) Not available.</p> <p>pFA2-cJun Plasmid Not available.</p> <p>pFC2-dbd Not available.</p> <p>pFC-MEKK Plasmid (Positive Control) Not available.</p>
Odor	:	<p>pFR-Luc Plasmid (Reporter Plasmid) Not available.</p> <p>pFA2-cJun Plasmid Not available.</p> <p>pFC2-dbd Not available.</p> <p>pFC-MEKK Plasmid (Positive Control) Not available.</p>
Odor threshold	:	<p>pFR-Luc Plasmid (Reporter Plasmid) Not available.</p> <p>pFA2-cJun Plasmid Not available.</p> <p>pFC2-dbd Not available.</p> <p>pFC-MEKK Plasmid (Positive Control) Not available.</p>
pH	:	

Section 9. Physical and chemical properties

		pFR-Luc Plasmid (Reporter Plasmid)	7.5
		pFA2-cJun Plasmid	7.5
		pFC2-dbd	7.5
		pFC-MEKK Plasmid (Positive Control)	7.5
Melting point	:	pFR-Luc Plasmid (Reporter Plasmid)	0°C (32°F)
		pFA2-cJun Plasmid	0°C (32°F)
		pFC2-dbd	0°C (32°F)
		pFC-MEKK Plasmid (Positive Control)	0°C (32°F)
Boiling point	:	pFR-Luc Plasmid (Reporter Plasmid)	100°C (212°F)
		pFA2-cJun Plasmid	100°C (212°F)
		pFC2-dbd	100°C (212°F)
		pFC-MEKK Plasmid (Positive Control)	100°C (212°F)
Flash point	:	pFR-Luc Plasmid (Reporter Plasmid)	Not available.
		pFA2-cJun Plasmid	Not available.
		pFC2-dbd	Not available.
		pFC-MEKK Plasmid (Positive Control)	Not available.
Evaporation rate	:	pFR-Luc Plasmid (Reporter Plasmid)	Not available.
		pFA2-cJun Plasmid	Not available.
		pFC2-dbd	Not available.
		pFC-MEKK Plasmid (Positive Control)	Not available.
Flammability (solid, gas)	:	pFR-Luc Plasmid (Reporter Plasmid)	Not applicable.
		pFA2-cJun Plasmid	Not applicable.
		pFC2-dbd	Not applicable.
		pFC-MEKK Plasmid (Positive Control)	Not applicable.
Lower and upper explosive (flammable) limits	:	pFR-Luc Plasmid (Reporter Plasmid)	Not available.
		pFA2-cJun Plasmid	Not available.
		pFC2-dbd	Not available.
		pFC-MEKK Plasmid (Positive Control)	Not available.
Vapor pressure	:	pFR-Luc Plasmid (Reporter Plasmid)	Not available.
		pFA2-cJun Plasmid	Not available.
		pFC2-dbd	Not available.
		pFC-MEKK Plasmid (Positive Control)	Not available.
Vapor density	:	pFR-Luc Plasmid (Reporter Plasmid)	Not available.
		pFA2-cJun Plasmid	Not available.
		pFC2-dbd	Not available.
		pFC-MEKK Plasmid (Positive Control)	Not available.

Section 9. Physical and chemical properties

Relative density	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not available. Not available. Not available. Not available.
Solubility	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not available. Not available. Not available. Not available.
Auto-ignition temperature	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not available. Not available. Not available. Not available.
Decomposition temperature	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not available. Not available. Not available. Not available.
Viscosity	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not available. Not available. Not available. Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	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. 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.
10.2 Chemical stability	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	The product is stable. The product is stable. The product is stable. The product is stable.

Section 10. Stability and reactivity

10.3 Possibility of hazardous reactions	<ul style="list-style-type: none"> : pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control) 	<p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p>
10.4 Conditions to avoid	<ul style="list-style-type: none"> : pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control) 	<p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p> <p>No specific data.</p>
10.5 Incompatible materials	<ul style="list-style-type: none"> : pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control) 	<p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p> <p>May react or be incompatible with oxidizing materials.</p>
10.6 Hazardous decomposition products	<ul style="list-style-type: none"> : pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control) 	<p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p> <p>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</p>

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Section 11. Toxicological information

Not available.

Teratogenicity

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	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	Not available. Not available. Not available. Not available.
<u>Potential acute health effects</u>		
Eye contact	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No specific data. No specific data. No specific data. No specific data.
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Section 11. Toxicological information

Inhalation	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No specific data. No specific data. No specific data. No specific data.
Skin contact	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No specific data. No specific data. No specific data. No specific data.
Ingestion	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No specific data. No specific data. No specific data. 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	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Section 11. Toxicological information

Developmental effects	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: pFR-Luc Plasmid (Reporter Plasmid) pFA2-cJun Plasmid pFC2-dbd pFC-MEKK Plasmid (Positive Control)	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

12.1 Toxicity

Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

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. 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 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / 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 Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
Clean Water Act (CWA) 311: Edetic acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification	: pFR-Luc Plasmid (Reporter Plasmid)	Not applicable.
	pFA2-cJun Plasmid	Not applicable.
	pFC2-dbd	Not applicable.
	pFC-MEKK Plasmid (Positive Control)	Not applicable.

Composition/information on ingredients

Section 15. Regulatory information

No products were found.

State regulations

- Massachusetts** : None of the components are listed.
- New York** : None of the components are listed.
- New Jersey** : None of the components are listed.
- Pennsylvania** : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

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.
- Malaysia** : Not determined.
- 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 listed or exempted.
- Viet Nam** : Not determined.

Section 16. Other information

History

- Date of issue** : 12/31/2017
- Date of previous issue** : 09/01/2015.
- Version** : 2

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

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