

Section 2. Hazard(s) identification

Precautionary statements

Prevention	:	Mammalian Transfection Kit Solution 1	P280 - Wear eye or face protection.
		Mammalian Transfection Kit Solution 2	P264 - Wash hands thoroughly after handling.
		pWL-neo Plasmid	Not applicable.
Response	:	Mammalian Transfection Kit Solution 1	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 attention.
		Mammalian Transfection Kit Solution 2	Not applicable.
		pWL-neo Plasmid	Not applicable.
Storage	:	Mammalian Transfection Kit Solution 1	Not applicable.
		Mammalian Transfection Kit Solution 2	Not applicable.
		pWL-neo Plasmid	Not applicable.
Disposal	:	Mammalian Transfection Kit Solution 1	Not applicable.
		Mammalian Transfection Kit Solution 2	Not applicable.
		pWL-neo Plasmid	Not applicable.
Supplemental label elements			
Additional warning phrases	:	Mammalian Transfection Kit Solution 1	Not applicable.
		Mammalian Transfection Kit Solution 2	Not applicable.
		pWL-neo Plasmid	Not applicable.
Other hazards which do not result in classification	:	Mammalian Transfection Kit Solution 1	None known.
		Mammalian Transfection Kit Solution 2	None known.
		pWL-neo Plasmid	None known.

Section 3. Composition and ingredient information

Substance/mixture	:	Mammalian Transfection Kit Solution 1	Mixture
		Mammalian Transfection Kit Solution 2	Mixture
		pWL-neo Plasmid	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Mammalian Transfection Kit Solution 1 calcium chloride	≥30 - ≤60	10043-52-4

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	: Mammalian Transfection Kit Solution 1	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.
	Mammalian Transfection Kit Solution 2	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.
	pWL-neo 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.
Inhalation	: Mammalian Transfection Kit Solution 1	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.
	Mammalian Transfection Kit Solution 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	pWL-neo Plasmid	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Mammalian Transfection Kit Solution 1	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.
	Mammalian Transfection Kit Solution 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pWL-neo Plasmid	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Mammalian Transfection Kit Solution 1	Wash out mouth with water. Remove dentures if any. 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.
	Mammalian Transfection Kit Solution 2	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

Section 4. First aid measures

pWL-neo Plasmid

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.

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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	Mammalian Transfection Kit Solution 1	Causes serious eye irritation.
		Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
		pWL-neo Plasmid	No known significant effects or critical hazards.
Inhalation	:	Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
		Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
		pWL-neo Plasmid	No known significant effects or critical hazards.
Skin contact	:	Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
		Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
		pWL-neo Plasmid	No known significant effects or critical hazards.
Ingestion	:	Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
		Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
		pWL-neo Plasmid	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	Mammalian Transfection Kit Solution 1	Adverse symptoms may include the following: pain or irritation watering redness
		Mammalian Transfection Kit Solution 2	No specific data.
		pWL-neo Plasmid	No specific data.
Inhalation	:	Mammalian Transfection Kit Solution 1	No specific data.
		Mammalian Transfection Kit Solution 2	No specific data.
		pWL-neo Plasmid	No specific data.
Skin contact	:	Mammalian Transfection Kit Solution 1	No specific data.
		Mammalian Transfection Kit Solution 2	No specific data.
		pWL-neo Plasmid	No specific data.
Ingestion	:	Mammalian Transfection Kit Solution 1	No specific data.
		Mammalian Transfection Kit Solution 2	No specific data.
		pWL-neo Plasmid	No specific data.

Section 4. First aid measures

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

Notes to physician	: Mammalian Transfection Kit Solution 1	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Mammalian Transfection Kit Solution 2	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	pWL-neo Plasmid	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Mammalian Transfection Kit Solution 1	No specific treatment.
	Mammalian Transfection Kit Solution 2	No specific treatment.
	pWL-neo Plasmid	No specific treatment.
Protection of first-aiders	: Mammalian Transfection Kit Solution 1	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.
	Mammalian Transfection Kit Solution 2	No action shall be taken involving any personal risk or without suitable training.
	pWL-neo Plasmid	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: Mammalian Transfection Kit Solution 1	Use an extinguishing agent suitable for the surrounding fire.
	Mammalian Transfection Kit Solution 2	Use an extinguishing agent suitable for the surrounding fire.
	pWL-neo Plasmid	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Mammalian Transfection Kit Solution 1	None known.
	Mammalian Transfection Kit Solution 2	None known.
	pWL-neo Plasmid	None known.
Specific hazards arising from the chemical	: Mammalian Transfection Kit Solution 1	In a fire or if heated, a pressure increase will occur and the container may burst.
	Mammalian Transfection Kit Solution 2	In a fire or if heated, a pressure increase will occur and the container may burst.
	pWL-neo Plasmid	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Mammalian Transfection Kit Solution 1	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	Mammalian Transfection Kit Solution 2	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
	pWL-neo Plasmid	No specific data.

Section 5. Firefighting measures

Special protective actions for fire-fighters	:	<input checked="" type="checkbox"/> Mammalian Transfection Kit Solution 1	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.
		Mammalian Transfection Kit Solution 2	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.
		pWL-neo Plasmid	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	:	<input checked="" type="checkbox"/> Mammalian Transfection Kit Solution 1	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		Mammalian Transfection Kit Solution 2	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		pWL-neo Plasmid	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	:	<input checked="" type="checkbox"/> Mammalian Transfection Kit Solution 1	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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
		Mammalian Transfection Kit Solution 2	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 spilt material. Put on appropriate personal protective equipment.
		pWL-neo Plasmid	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 spilt material. Put on appropriate personal protective equipment.
For emergency responders	:	<input checked="" type="checkbox"/> Mammalian Transfection Kit Solution 1	If specialised 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".
		Mammalian Transfection Kit Solution 2	If specialised 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".
		pWL-neo Plasmid	If specialised 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

Environmental precautions	: <input checked="" type="checkbox"/> Mammalian Transfection Kit Solution 1	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Mammalian Transfection Kit Solution 2	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	pWL-neo Plasmid	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up	: <input checked="" type="checkbox"/> Mammalian Transfection Kit Solution 1	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.
	Mammalian Transfection Kit Solution 2	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.
	pWL-neo 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: <input checked="" type="checkbox"/> Mammalian Transfection Kit Solution 1	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour 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.
	Mammalian Transfection Kit Solution 2	Put on appropriate personal protective equipment (see Section 8).
	pWL-neo Plasmid	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: <input checked="" type="checkbox"/> Mammalian Transfection Kit Solution 1	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.
	Mammalian Transfection Kit Solution 2	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

Section 7. Handling and storage

pWL-neo Plasmid

contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. 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

Mammalian Transfection Kit Solution 1

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

Mammalian Transfection Kit Solution 2

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

pWL-neo Plasmid

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

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

None.

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

Section 8. Exposure controls and personal protection

- 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: chemical splash goggles.
- 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. 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

Appearance

- Physical state** : Mammalian Transfection Kit Solution 1 Liquid.
 Mammalian Transfection Kit Solution 2 Liquid.
 pWL-neo Plasmid Liquid.
- Colour** : Mammalian Transfection Kit Solution 1 Not available.
 Mammalian Transfection Kit Solution 2 Not available.
 pWL-neo Plasmid Not available.
- Odour** : Mammalian Transfection Kit Solution 1 Not available.
 Mammalian Transfection Kit Solution 2 Not available.
 pWL-neo Plasmid Not available.
- Odour threshold** : Mammalian Transfection Kit Solution 1 Not available.
 Mammalian Transfection Kit Solution 2 Not available.
 pWL-neo Plasmid Not available.
- pH** : Mammalian Transfection Kit Solution 1 Not available.
 Mammalian Transfection Kit Solution 2 6.95
 pWL-neo Plasmid 7.5

Section 9. Physical and chemical properties

Melting point	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	0°C (32°F)
	pWL-neo Plasmid	0°C (32°F)
Boiling point	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	100°C (212°F)
	pWL-neo Plasmid	100°C (212°F)
Flash point	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.
Evaporation rate	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.
Flammability (solid, gas)	: Mammalian Transfection Kit Solution 1	Not applicable.
	Mammalian Transfection Kit Solution 2	Not applicable.
	pWL-neo Plasmid	Not applicable.
Lower and upper explosive (flammable) limits	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.
Vapour pressure	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.
Vapour density	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.
Relative density	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.
Solubility	: Mammalian Transfection Kit Solution 1	Soluble in the following materials: cold water and hot water.
	Mammalian Transfection Kit Solution 2	Easily soluble in the following materials: cold water and hot water.
	pWL-neo Plasmid	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.
Auto-ignition temperature	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.

Section 9. Physical and chemical properties

Decomposition temperature	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.
Viscosity	: Mammalian Transfection Kit Solution 1	Not available.
	Mammalian Transfection Kit Solution 2	Not available.
	pWL-neo Plasmid	Not available.

Section 10. Stability and reactivity

Reactivity	: Mammalian Transfection Kit Solution 1	No specific test data related to reactivity available for this product or its ingredients.
	Mammalian Transfection Kit Solution 2	No specific test data related to reactivity available for this product or its ingredients.
	pWL-neo Plasmid	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: Mammalian Transfection Kit Solution 1	The product is stable.
	Mammalian Transfection Kit Solution 2	The product is stable.
	pWL-neo Plasmid	The product is stable.
Possibility of hazardous reactions	: Mammalian Transfection Kit Solution 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	Mammalian Transfection Kit Solution 2	Under normal conditions of storage and use, hazardous reactions will not occur.
	pWL-neo Plasmid	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Mammalian Transfection Kit Solution 1	No specific data.
	Mammalian Transfection Kit Solution 2	No specific data.
	pWL-neo Plasmid	No specific data.
Incompatible materials	: Mammalian Transfection Kit Solution 1	May react or be incompatible with oxidising materials.
	Mammalian Transfection Kit Solution 2	May react or be incompatible with oxidising materials.
	pWL-neo Plasmid	May react or be incompatible with oxidising materials.
Hazardous decomposition products	: Mammalian Transfection Kit Solution 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Mammalian Transfection Kit Solution 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pWL-neo Plasmid	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
Mammalian Transfection Kit Solution 1 calcium chloride	LD50 Oral	Rat	1 g/kg	-

Irritation/Corrosion

Not available.

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

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 likely routes of exposure	: Mammalian Transfection Kit Solution 1	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Mammalian Transfection Kit Solution 2	Routes of entry anticipated: Oral, Dermal, Inhalation.
	pWL-neo Plasmid	Not available.

Potential acute health effects

Eye contact	: Mammalian Transfection Kit Solution 1	Causes serious eye irritation.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.
Inhalation	: Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.
Skin contact	: Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.

Section 11. Toxicological information

Ingestion	: Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Mammalian Transfection Kit Solution 1	Adverse symptoms may include the following: pain or irritation watering redness
	Mammalian Transfection Kit Solution 2	No specific data.
	pWL-neo Plasmid	No specific data.
Inhalation	: Mammalian Transfection Kit Solution 1	No specific data.
	Mammalian Transfection Kit Solution 2	No specific data.
	pWL-neo Plasmid	No specific data.
Skin contact	: Mammalian Transfection Kit Solution 1	No specific data.
	Mammalian Transfection Kit Solution 2	No specific data.
	pWL-neo Plasmid	No specific data.
Ingestion	: Mammalian Transfection Kit Solution 1	No specific data.
	Mammalian Transfection Kit Solution 2	No specific data.
	pWL-neo Plasmid	No specific data.

Delayed and immediate effects as well as 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

Not available.

General	: Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.
Carcinogenicity	: Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.
Mutagenicity	: Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.

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Teratogenicity	: Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.
Developmental effects	: Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.
Fertility effects	: Mammalian Transfection Kit Solution 1	No known significant effects or critical hazards.
	Mammalian Transfection Kit Solution 2	No known significant effects or critical hazards.
	pWL-neo Plasmid	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Mammalian Transfection Kit Solution 1 calcium chloride	Acute EC50 3130000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 464000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 270 mg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 2110 mg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Mammalian Transfection Kit Solution 1 calcium chloride	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Mammalian Transfection Kit Solution 1 calcium chloride	<3	-	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 minimised 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

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

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

Standard Uniform Schedule of Medicine and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

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.

Section 15. Regulatory information

Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: <input checked="" type="checkbox"/> Not determined.
United States	: All components are listed or exempted.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision	: 31/12/2017
Date of previous issue	: 30/09/2015.
Version	: 2.02

Key to abbreviations	: ADG = Australian Dangerous Goods ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals 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) NOHSC = National Occupational Health and Safety Commission SUSMP = Standard Uniform Schedule of Medicine and Poisons UN = United Nations
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Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> Mammalian Transfection Kit Solution 1 Eye Irrit. 2A, H319	Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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