

# SAFETY DATA SHEET

MBS Mammalian Transfection Kit, Part Number 200388

## Section 1. Identification

**Product identifier** : MBS Mammalian Transfection Kit, Part Number 200388  
**Part no. (chemical kit)** : 200388  
**Part no.** : MBS Transfection Kit Solution 1 200388-51  
MBS Transfection Kit Solution 2 200388-52  
MBS Transfection Kit Soltuion 3 200388-53  
pCMV β-Gal Control Plasmid 200388-54

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

**Identified uses** :  Analytical reagent.  
 MBS Transfection Kit Solution 1 10 ml  
MBS Transfection Kit Solution 2 50 ml  
MBS Transfection Kit Soltuion 3 80 ml  
pCMV β-Gal Control Plasmid 0.04 ml (40 µg 1 µg/µl)

**Supplier/Manufacturer** : Agilent Technologies Australia Pty Ltd  
679 Springvale Road  
Mulgrave  
Victoria 3170, Australia  
1800 802 402

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(61)-290372994

## Section 2. Hazard(s) identification

### Classification of the substance or mixture

**MBS Transfection Kit Solution 1**  
H319

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

MBS Transfection Kit Soltuion 3 Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 98.8%

### GHS label elements

**Hazard pictograms** : MBS Transfection Kit Solution 1



**Signal word** : MBS Transfection Kit Solution 1 WARNING  
MBS Transfection Kit Solution 2 No signal word.  
MBS Transfection Kit Soltuion 3 No signal word.  
pCMV β-Gal Control Plasmid No signal word.

## Section 2. Hazard(s) identification

<b>Hazard statements</b>	: MBS Transfection Kit Solution 1	H319 - Causes serious eye irritation.
	MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
	pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.
<b>Precautionary statements</b>		
<b>Prevention</b>	: MBS Transfection Kit Solution 1	P280 - Wear eye or face protection.
	MBS Transfection Kit Solution 2	Not applicable.
	MBS Transfection Kit Solution 3	Not applicable.
	pCMV $\beta$ -Gal Control Plasmid	Not applicable.
	<b>Response</b>	: MBS Transfection Kit Solution 1
	MBS Transfection Kit Solution 2	Not applicable.
	MBS Transfection Kit Solution 3	Not applicable.
	pCMV $\beta$ -Gal Control Plasmid	Not applicable.
<b>Storage</b>	: MBS Transfection Kit Solution 1	Not applicable.
	MBS Transfection Kit Solution 2	Not applicable.
	MBS Transfection Kit Solution 3	Not applicable.
	pCMV $\beta$ -Gal Control Plasmid	Not applicable.
	<b>Disposal</b>	: MBS Transfection Kit Solution 1
	MBS Transfection Kit Solution 2	Not applicable.
	MBS Transfection Kit Solution 3	Not applicable.
	pCMV $\beta$ -Gal Control Plasmid	Not applicable.
<b>Supplemental label elements</b>		
<b>Additional warning phrases</b>	: MBS Transfection Kit Solution 1	Not applicable.
	MBS Transfection Kit Solution 2	Not applicable.
	MBS Transfection Kit Solution 3	Not applicable.
	pCMV $\beta$ -Gal Control Plasmid	Not applicable.
	<b>Other hazards which do not result in classification</b>	: MBS Transfection Kit Solution 1
	MBS Transfection Kit Solution 2	None known.
	MBS Transfection Kit Solution 3	None known.
	pCMV $\beta$ -Gal Control Plasmid	None known.

## Section 3. Composition and ingredient information

<b>Substance/mixture</b>	:	MBS Transfection Kit Solution 1	Mixture
		MBS Transfection Kit Solution 2	Mixture
		MBS Transfection Kit Soltuion 3	Mixture
		pCMV $\beta$ -Gal Control Plasmid	Mixture

### CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
<b>MBS Transfection Kit Solution 1</b> Calcium chloride (CaCl <sub>2</sub> ), dihydrate	≥30 - ≤60	10035-04-8
<b>MBS Transfection Kit Soltuion 3</b> Ethanol	≤3	64-17-5

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

The total concentration of ingredients in this product, reported or not in this section, is 100%.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	:	MBS 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.
		MBS 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.
		MBS Transfection Kit Soltuion 3	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.
		pCMV $\beta$ -Gal Control 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.
<b>Inhalation</b>	:	MBS 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.
		MBS 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.

## Section 4. First aid measures

	MBS Transfection Kit Soltuion 3	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.
	pCMV $\beta$ -Gal Control Plasmid	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	: MBS 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.
	MBS Transfection Kit Solution 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	MBS Transfection Kit Soltuion 3	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pCMV $\beta$ -Gal Control Plasmid	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: MBS Transfection Kit Solution 1	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.
	MBS Transfection Kit Solution 2	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.
	MBS Transfection Kit Soltuion 3	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.
	pCMV $\beta$ -Gal Control Plasmid	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.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	: MBS Transfection Kit Solution 1	Causes serious eye irritation.
	MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
	MBS Transfection Kit Soltuion 3	No known significant effects or critical hazards.
	pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.

## Section 4. First aid measures

<b>Inhalation</b>	: MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
	pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.
<b>Skin contact</b>	: MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
	pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.
<b>Ingestion</b>	: MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
	pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.

### Over-exposure signs/symptoms

<b>Eye contact</b>	: MBS Transfection Kit Solution 1	Adverse symptoms may include the following: pain or irritation watering redness
	MBS Transfection Kit Solution 2	No specific data.
	MBS Transfection Kit Solution 3	No specific data.
	pCMV $\beta$ -Gal Control Plasmid	No specific data.
<b>Inhalation</b>	: MBS Transfection Kit Solution 1	No specific data.
	MBS Transfection Kit Solution 2	No specific data.
	MBS Transfection Kit Solution 3	No specific data.
	pCMV $\beta$ -Gal Control Plasmid	No specific data.
<b>Skin contact</b>	: MBS Transfection Kit Solution 1	No specific data.
	MBS Transfection Kit Solution 2	No specific data.
	MBS Transfection Kit Solution 3	No specific data.
	pCMV $\beta$ -Gal Control Plasmid	No specific data.
<b>Ingestion</b>	: MBS Transfection Kit Solution 1	No specific data.
	MBS Transfection Kit Solution 2	No specific data.
	MBS Transfection Kit Solution 3	No specific data.
	pCMV $\beta$ -Gal Control Plasmid	No specific data.

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

## Section 4. First aid measures

<b>Notes to physician</b>	: MBS Transfection Kit Solution 1	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	MBS 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.
	MBS Transfection Kit Soltuion 3	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.
	pCMV $\beta$ -Gal Control Plasmid	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: MBS Transfection Kit Solution 1	No specific treatment.
	MBS Transfection Kit Solution 2	No specific treatment.
	MBS Transfection Kit Soltuion 3	No specific treatment.
	pCMV $\beta$ -Gal Control Plasmid	No specific treatment.
<b>Protection of first-aiders</b>	: MBS 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.
	MBS Transfection Kit Solution 2	No action shall be taken involving any personal risk or without suitable training.
	MBS Transfection Kit Soltuion 3	No action shall be taken involving any personal risk or without suitable training.
	pCMV $\beta$ -Gal Control 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

<b>Suitable extinguishing media</b>	: MBS Transfection Kit Solution 1	Use an extinguishing agent suitable for the surrounding fire.
	MBS Transfection Kit Solution 2	Use an extinguishing agent suitable for the surrounding fire.
	MBS Transfection Kit Soltuion 3	Use an extinguishing agent suitable for the surrounding fire.
	pCMV $\beta$ -Gal Control Plasmid	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: MBS Transfection Kit Solution 1	None known.
	MBS Transfection Kit Solution 2	None known.
	MBS Transfection Kit Soltuion 3	None known.
	pCMV $\beta$ -Gal Control Plasmid	None known.

### Specific hazards arising from the chemical

: MBS Transfection Kit Solution 1	In a fire or if heated, a pressure increase will occur and the container may burst.
MBS Transfection Kit Solution 2	In a fire or if heated, a pressure increase will occur and the container may burst.
MBS Transfection Kit Soltuion 3	In a fire or if heated, a pressure increase will occur and the container may burst.
pCMV $\beta$ -Gal Control Plasmid	In a fire or if heated, a pressure increase will occur and the container may burst.

## Section 5. Firefighting measures

<b>Hazardous thermal decomposition products</b>	: MBS Transfection Kit Solution 1	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	MBS Transfection Kit Solution 2	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
	MBS Transfection Kit Soltuion 3	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides
	pCMV $\beta$ -Gal Control Plasmid	No specific data.
<b>Special protective actions for fire-fighters</b>	: MBS 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.
	MBS 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.
	MBS Transfection Kit Soltuion 3	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.
	pCMV $\beta$ -Gal Control 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.
<b>Special protective equipment for fire-fighters</b>	: MBS 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.
	MBS 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.
	MBS Transfection Kit Soltuion 3	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	pCMV $\beta$ -Gal Control 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

## Section 6. Accidental release measures

<b>For non-emergency personnel</b>	: MBS 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.
	MBS 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.
	MBS Transfection Kit Solution 3	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.
	pCMV $\beta$ -Gal Control 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.
<b>For emergency responders</b>	: MBS 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".
	MBS 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".
	MBS Transfection Kit Solution 3	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".
	pCMV $\beta$ -Gal Control 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".
<b>Environmental precautions</b>	: MBS 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).
	MBS 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).
	MBS Transfection Kit Solution 3	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).
	pCMV $\beta$ -Gal Control 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).



## Section 6. Accidental release measures

### Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	: MBS 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.
	MBS 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.
	MBS Transfection Kit Soltuion 3	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.
	pCMV $\beta$ -Gal Control 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

<b>Protective measures</b>	: MBS 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.
	MBS Transfection Kit Solution 2	Put on appropriate personal protective equipment (see Section 8).
	MBS Transfection Kit Soltuion 3	Put on appropriate personal protective equipment (see Section 8).
	pCMV $\beta$ -Gal Control Plasmid	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	: MBS 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.
	MBS 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 contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	MBS Transfection Kit Soltuion 3	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

	pCMV $\beta$ -Gal Control 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.
<p><b>Conditions for safe storage, including any incompatibilities</b></p>	: MBS 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.
	MBS 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.
	MBS Transfection Kit Solution 3	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.
	pCMV $\beta$ -Gal Control 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](#)

Ingredient name	Exposure limits
MBS Transfection Kit Soltuion 3 Ethanol	<b>Safe Work Australia (Australia, 10/2022).</b> TWA: 1880 mg/m <sup>3</sup> 8 hours. TWA: 1000 ppm 8 hours.

### [Biological exposure indices](#)

No exposure indices known.

- 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** : 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 and safety characteristics

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

### [Appearance](#)

- Physical state** : MBS Transfection Kit Solution 1 Liquid.  
MBS Transfection Kit Solution 2 Liquid.  
MBS Transfection Kit Soltuion 3 Liquid.  
pCMV β-Gal Control Plasmid Liquid.

## Section 9. Physical and chemical properties and safety characteristics

<b>Colour</b>	:	MBS Transfection Kit Solution 1	Not available.																											
		MBS Transfection Kit Solution 2	Not available.																											
		MBS Transfection Kit Solution 3	Not available.																											
		pCMV $\beta$ -Gal Control Plasmid	Not available.																											
<b>Odour</b>	:	MBS Transfection Kit Solution 1	Not available.																											
		MBS Transfection Kit Solution 2	Not available.																											
		MBS Transfection Kit Solution 3	Not available.																											
		pCMV $\beta$ -Gal Control Plasmid	Not available.																											
<b>Odour threshold</b>	:	MBS Transfection Kit Solution 1	Not available.																											
		MBS Transfection Kit Solution 2	Not available.																											
		MBS Transfection Kit Solution 3	Not available.																											
		pCMV $\beta$ -Gal Control Plasmid	Not available.																											
<b>pH</b>	:	MBS Transfection Kit Solution 1	Not available.																											
		MBS Transfection Kit Solution 2	6.95																											
		MBS Transfection Kit Solution 3	Not available.																											
		pCMV $\beta$ -Gal Control Plasmid	Not available.																											
<b>Melting point/freezing point</b>	:	MBS Transfection Kit Solution 1	Not available.																											
		MBS Transfection Kit Solution 2	0°C (32°F)																											
		MBS Transfection Kit Solution 3	Not available.																											
		pCMV $\beta$ -Gal Control Plasmid	0°C (32°F)																											
<b>Boiling point, initial boiling point, and boiling range</b>	:	MBS Transfection Kit Solution 1	Not available.																											
		MBS Transfection Kit Solution 2	100°C (212°F)																											
		MBS Transfection Kit Solution 3	Not available.																											
		pCMV $\beta$ -Gal Control Plasmid	100°C (212°F)																											
<b>Flash point</b>	:		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: left;">Ingredient name</th> <th colspan="3">Closed cup</th> <th colspan="3">Open cup</th> </tr> <tr> <th>°C</th> <th>°F</th> <th>Method</th> <th>°C</th> <th>°F</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td>MBS Transfection Kit Solution 3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ethanol</td> <td>9.7</td> <td>49.5</td> <td>Abel-Pensky</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	Ingredient name	Closed cup			Open cup			°C	°F	Method	°C	°F	Method	MBS Transfection Kit Solution 3							Ethanol	9.7	49.5	Abel-Pensky	-	-	-
Ingredient name	Closed cup				Open cup																									
	°C	°F	Method	°C	°F	Method																								
MBS Transfection Kit Solution 3																														
Ethanol	9.7	49.5	Abel-Pensky	-	-	-																								
<b>Evaporation rate</b>	:	MBS Transfection Kit Solution 1	Not available.																											
		MBS Transfection Kit Solution 2	Not available.																											
		MBS Transfection Kit Solution 3	Not available.																											
		pCMV $\beta$ -Gal Control Plasmid	Not available.																											

## Section 9. Physical and chemical properties and safety characteristics

**Flammability** : MBS Transfection Kit Solution 1 Not applicable.  
MBS Transfection Kit Solution 2 Not applicable.  
MBS Transfection Kit Soltuion 3 Not applicable.  
pCMV  $\beta$ -Gal Control Plasmid Not applicable.

**Lower and upper explosion limit/flammability limit** : MBS Transfection Kit Solution 1 Not available.  
MBS Transfection Kit Solution 2 Not available.  
MBS Transfection Kit Soltuion 3 Not available.  
pCMV  $\beta$ -Gal Control Plasmid Not available.

**Vapour pressure** :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<b>MBS Transfection Kit Solution 1</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>MBS Transfection Kit Solution 2</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>MBS Transfection Kit Soltuion 3</b>						
Ethanol	42.94865	5.7	-	-	-	-
<b>pCMV <math>\beta</math>-Gal Control Plasmid</b>						
water	17.5	2.3	-	92.258	12.3	-

**Relative vapour density** : MBS Transfection Kit Solution 1 Not available.  
MBS Transfection Kit Solution 2 Not available.  
MBS Transfection Kit Soltuion 3 Not available.  
pCMV  $\beta$ -Gal Control Plasmid Not available.

**Relative density** : MBS Transfection Kit Solution 1 Not available.  
MBS Transfection Kit Solution 2 Not available.  
MBS Transfection Kit Soltuion 3 Not available.  
pCMV  $\beta$ -Gal Control Plasmid Not available.

## Section 9. Physical and chemical properties and safety characteristics

<b>Solubility(ies)</b>	<b>Media</b>	<b>Result</b>		
	MBS Transfection Kit Solution 1 water	Soluble		
	MBS Transfection Kit Solution 2 water	Soluble		
	MBS Transfection Kit Soltuion 3 water	Soluble		
	pCMV $\beta$ -Gal Control Plasmid water	Soluble		
<b>Partition coefficient: n-octanol/water</b>	MBS Transfection Kit Solution 1	Not applicable.		
	MBS Transfection Kit Solution 2	Not applicable.		
	MBS Transfection Kit Soltuion 3	Not applicable.		
	pCMV $\beta$ -Gal Control Plasmid	Not applicable.		
<b>Auto-ignition temperature</b>	<b>Ingredient name</b>	<b>°C</b>	<b>°F</b>	<b>Method</b>
	MBS Transfection Kit Soltuion 3 Ethanol	455	851	DIN 51794
<b>Decomposition temperature</b>	MBS Transfection Kit Solution 1	Not available.		
	MBS Transfection Kit Solution 2	Not available.		
	MBS Transfection Kit Soltuion 3	Not available.		
	pCMV $\beta$ -Gal Control Plasmid	Not available.		
<b>Viscosity</b>	MBS Transfection Kit Solution 1	Not available.		
	MBS Transfection Kit Solution 2	Not available.		
	MBS Transfection Kit Soltuion 3	Not available.		
	pCMV $\beta$ -Gal Control Plasmid	Not available.		
<b>Particle characteristics</b>				
<b>Median particle size</b>	MBS Transfection Kit Solution 1	Not applicable.		
	MBS Transfection Kit Solution 2	Not applicable.		
	MBS Transfection Kit Soltuion 3	Not applicable.		
	pCMV $\beta$ -Gal Control Plasmid	Not applicable.		

## Section 10. Stability and reactivity

<b>Reactivity</b>	MBS Transfection Kit Solution 1	No specific test data related to reactivity available for this product or its ingredients.
	MBS Transfection Kit Solution 2	No specific test data related to reactivity available for this product or its ingredients.
	MBS Transfection Kit Soltuion 3	No specific test data related to reactivity available for this product or its ingredients.
	pCMV $\beta$ -Gal Control Plasmid	No specific test data related to reactivity available for this product or its ingredients.

## Section 10. Stability and reactivity

<b>Chemical stability</b>	: MBS Transfection Kit Solution 1	The product is stable.
	MBS Transfection Kit Solution 2	The product is stable.
	MBS Transfection Kit Soltuion 3	The product is stable.
	pCMV $\beta$ -Gal Control Plasmid	The product is stable.
<b>Possibility of hazardous reactions</b>	: MBS Transfection Kit Solution 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	MBS Transfection Kit Solution 2	Under normal conditions of storage and use, hazardous reactions will not occur.
	MBS Transfection Kit Soltuion 3	Under normal conditions of storage and use, hazardous reactions will not occur.
	pCMV $\beta$ -Gal Control Plasmid	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: MBS Transfection Kit Solution 1	No specific data.
	MBS Transfection Kit Solution 2	No specific data.
	MBS Transfection Kit Soltuion 3	No specific data.
	pCMV $\beta$ -Gal Control Plasmid	No specific data.
<b>Incompatible materials</b>	: MBS Transfection Kit Solution 1	May react or be incompatible with oxidising materials.
	MBS Transfection Kit Solution 2	May react or be incompatible with oxidising materials.
	MBS Transfection Kit Soltuion 3	May react or be incompatible with oxidising materials.
	pCMV $\beta$ -Gal Control Plasmid	May react or be incompatible with oxidising materials.
<b>Hazardous decomposition products</b>	: MBS Transfection Kit Solution 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	MBS Transfection Kit Solution 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	MBS Transfection Kit Soltuion 3	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pCMV $\beta$ -Gal Control 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
MBS Transfection Kit Soltuion 3				
Ethanol	LC50 Inhalation Vapour LD50 Oral	Rat Rat	124700 mg/m <sup>3</sup> 7 g/kg	4 hours -

#### Irritation/Corrosion

## Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
MBS Transfection Kit Soltuion 3 Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	100 uL	-

### Sensitisation

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.

<b>Information on likely routes of exposure</b>	<b>Information on likely routes of exposure</b> :	MBS Transfection Kit Solution 1	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
		MBS Transfection Kit Solution 2	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
		MBS Transfection Kit Soltuion 3	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
		pCMV $\beta$ -Gal Control Plasmid	Not available.

### Potential acute health effects

<b>Eye contact</b>	<b>Eye contact</b> :	MBS Transfection Kit Solution 1	Causes serious eye irritation.
		MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
		MBS Transfection Kit Soltuion 3	No known significant effects or critical hazards.
		pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.
<b>Inhalation</b>	<b>Inhalation</b> :	MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
		MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
		MBS Transfection Kit Soltuion 3	No known significant effects or critical hazards.
		pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.



## Section 11. Toxicological information

<b>Skin contact</b>	: MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
	pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.
<b>Ingestion</b>	: MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
	MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
	pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: MBS Transfection Kit Solution 1	Adverse symptoms may include the following: pain or irritation watering redness
	MBS Transfection Kit Solution 2	No specific data.
	MBS Transfection Kit Solution 3	No specific data.
	pCMV $\beta$ -Gal Control Plasmid	No specific data.
<b>Inhalation</b>	: MBS Transfection Kit Solution 1	No specific data.
	MBS Transfection Kit Solution 2	No specific data.
	MBS Transfection Kit Solution 3	No specific data.
	pCMV $\beta$ -Gal Control Plasmid	No specific data.
<b>Skin contact</b>	: MBS Transfection Kit Solution 1	No specific data.
	MBS Transfection Kit Solution 2	No specific data.
	MBS Transfection Kit Solution 3	No specific data.
	pCMV $\beta$ -Gal Control Plasmid	No specific data.
<b>Ingestion</b>	: MBS Transfection Kit Solution 1	No specific data.
	MBS Transfection Kit Solution 2	No specific data.
	MBS Transfection Kit Solution 3	No specific data.
	pCMV $\beta$ -Gal Control 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

## Section 11. Toxicological information

<b>General</b>	:	MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
		MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
		MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
		pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	:	MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
		MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
		MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
		pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.
<b>Mutagenicity</b>	:	MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
		MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
		MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
		pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	:	MBS Transfection Kit Solution 1	No known significant effects or critical hazards.
		MBS Transfection Kit Solution 2	No known significant effects or critical hazards.
		MBS Transfection Kit Solution 3	No known significant effects or critical hazards.
		pCMV $\beta$ -Gal Control Plasmid	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
MBS Transfection Kit Solution 3 Ethanol	7000	N/A	N/A	124.7	N/A

**Other information** :  MBS Transfection Kit Solution 2 Adverse symptoms may include the following: May cause skin sensitisation.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> MBS Transfection Kit Solution 1 Calcium chloride (CaCl <sub>2</sub> ), dihydrate	Acute EC50 2900 mg/l Fresh water	Algae	72 hours
	Acute NOEC 2000 mg/l Fresh water	Daphnia	48 hours
MBS Transfection Kit Solution 3 Ethanol	Acute EC50 3306 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute EC50 1074 mg/l Fresh water	Crustaceans - <i>Cypris subglobosa</i>	48 hours
	Acute EC50 2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 11000000 $\mu$ g/l Marine	Fish - <i>Alburnus alburnus</i>	96 hours

## Section 12. Ecological information

	water Chronic NOEC 4.995 mg/l Marine water Chronic NOEC 100 µl/L Fresh water	Algae - <i>Ulva pertusa</i> Daphnia - <i>Daphnia magna</i> - Neonate	96 hours 21 days
--	--	--	---------------------

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
MBS Transfection Kit Solution 3 Ethanol	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
MBS Transfection Kit Solution 3 Ethanol	-0.35	0.5	Low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : 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. Empty containers or liners may retain some product residues. Avoid dispersal of spilt 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 IMO instruments** : Not available.

## Section 15. Regulatory information

### Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

### Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

### International regulations

## Section 15. Regulatory information

### [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** : Not determined.

**New Zealand** : Not determined.

**United States** : Not determined.

## Section 16. Any other relevant information

### [History](#)

**Date of issue/Date of revision** : 28/03/2024

**Date of previous issue** : 30/03/2021

**Version** : 8

### [Key to abbreviations](#)

: ADG = Australian Dangerous Goods  
 : ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
 : 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)  
 : N/A = Not available  
 : SUSMP = Standard Uniform Schedule of Medicine and Poisons  
 : UN = United Nations

### [Procedure used to derive the classification](#)

Classification	Justification
<b>MBS Transfection Kit Solution 1</b> SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	Calculation method

 Indicates information that has changed from previously issued version.

### [Notice to reader](#)

**Disclaimer:** The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.