

## SAFETY DATA SHEET

Conforms to EU Directive 91/155/EEC, as amended by 2001/58/EC - United Kingdom (UK)  
English

## 1. Identification of the substance/preparation and company/undertaking

Product name **EGFP-SMAD9 Adenoviral vector gene delivery system**

Catalogue Number 25-9002-41



Product type Liquid.

Company/undertaking identification

Supplier GE Healthcare UK Ltd  
Amersham Place  
Little Chalfont  
Buckinghamshire HP7 9NA  
England  
+44 0870 606 1921

Emergency telephone number  
Swedish Poisons Information Centre :  
+46 (0)8 331 231

Person who prepared the MSDS : msdslifesciences@ge.com

United Kingdom (UK) GE Healthcare UK Ltd  
Amersham Place  
Little Chalfont  
Buckinghamshire  
HP7 9NA  
0870 606 1921

## 2. Hazards identification

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification Not classified.

See section 11 for more detailed information on health effects and symptoms.

## 3. Composition/information on ingredients

Substance/preparation Preparation

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>EC number</u>	<u>Classification</u>
glycerol	56-81-5	10	200-289-5	Xi; R36/37/38

See section 16 for the full text of the R-phrases declared above

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

## 4. First-aid measures

First-aid measures

**Inhalation** Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Obtain medical attention if symptoms occur.

**Ingestion** Wash out mouth with water. Move exposed person to fresh air. Keep person warm and at rest. 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. Obtain medical attention if symptoms occur.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur.

**Eye contact** 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 if irritation occurs.



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**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training.

See section 11 for more detailed information on health effects and symptoms.

## 5. Fire-fighting measures

### Extinguishing media

<b>Suitable</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Not suitable</b>	None known.
<b>Special exposure hazards</b>	<p>☑ In a fire or if heated, a pressure increase will occur and the container may burst.</p> <p>☑ 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.</p>
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

<b>Personal precautions</b>	☑ 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 (see section 8).
<b>Environmental precautions</b>	☑ 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).
<b>Large spill</b>	<p>☑ Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.</p>
<b>Small spill</b>	☑ Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## 7. Handling and storage

<b>Handling</b>	☑ Put on appropriate personal protective equipment (see section 8). 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.
<b>Storage</b>	☑ 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.
<b>Packaging materials</b>	
<b>Recommended</b>	Use original container.

## 8. Exposure controls/personal protection

### Ingredient name

glycerol

### Occupational exposure limits

**EH40/2005 WELs (United Kingdom (UK), 8/2007).**  
TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Mist

### Exposure controls

<b>Occupational exposure controls</b>	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
<b>Respiratory protection</b>	☑ Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Hand protection</b>	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.
<b>Eye protection</b>	☑ 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 or dusts.
<b>Skin protection</b>	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. 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.
<b>Environmental exposure controls</b>	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.



## 9. Physical and chemical properties

### General information

#### Appearance

Physical state	Liquid.
Colour	Colourless.
Odour	Odourless.

### Important health, safety and environmental information

pH	8 [Conc. (% w/w): 100%]
Explosive properties	Not considered to be a product presenting a risk of explosion.
Solubility	Easily soluble in the following materials: cold water and hot water.

## 10. Stability and reactivity

Stability	The product is stable.
Materials to avoid	No specific data.

## 11. Toxicological information

### Potential acute health effects

Inhalation	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Skin contact	No known significant effects or critical hazards.
Eye contact	No known significant effects or critical hazards.

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
glycerol	LD50 Dermal	Rabbit	>10 g/kg	-
	LD50 Intraperitoneal	Rat	4420 mg/kg	-
	LD50 Intravenous	Rat	5566 mg/kg	-
	LD50 Oral	Rat	12600 mg/kg	-
	LD50 Subcutaneous	Rat	100 mg/kg	-
	LDLo Intramuscular	Rat	10 mg/kg	-
	TDLo Intramuscular	Rat	8 mL/kg	-
	TDLo Intramuscular	Rat	5000 mg/kg	-

Conclusion/Summary Not available.

### Potential chronic health effects

Chronic effects	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Reproductive toxicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

### Over-exposure signs/symptoms

Inhalation	No specific data.
Ingestion	No specific data.
Skin	No specific data.
Eyes	No specific data.
Target organs	Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, skin, eye, lens or cornea.

## 12. Ecological information

Environmental effects	No known significant effects or critical hazards.
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### Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
glycerol	-	Acute LC50 54 to 57 ml/L Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss - 0.9 g	96 hours
Conclusion/Summary	Not available.			
Conclusion/Summary	Not available.			
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability	
glycerol	-	>60%; 28 day(s).	Readily	

Other adverse effects	No known significant effects or critical hazards.
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## 13. Disposal considerations

### Methods of disposal

The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### Hazardous waste

Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

## 14. Transport information

### International transport regulations

Not classified.

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## 15. Regulatory information

### EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

#### Risk phrases

This product is not classified according to EU legislation.

#### Product use

Industrial applications.

#### Europe inventory

All components are listed or exempted.

### Other EU regulations

#### Additional warning phrases

Safety data sheet available for professional user on request.

## 16. Other information

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK) R36/37/38- Irritating to eyes, respiratory system and skin.

Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK) Xi - Irritant



Indicates information that has changed from previously issued version.

### History

#### Date of printing

26 August 2009

#### Date of previous issue

25 July 2006

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25 August 2009

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4

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

