

# Material Safety Data Sheet

Australia

English

## 1. Identification of the material and supplier

Product name **KvickFlow™ 5.0 ft<sup>2</sup>, 30 kD, PES**

Catalogue Number **UFEFL0030050ST**



### Company details

#### Manufacturer

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

#### Supplier

GE Healthcare Bio-Sciences  
Building 4B, Parklands Estate  
21 South Street  
Rydalmere NSW 2116  
Australia  
+61 2 8820 8299

Emergency telephone number **000 and +61 2 9846 4000**

ADG **-**

### Uses

**Area of application** Industrial applications.  
**Material uses** Analytical chemistry. Chemical synthesis. Manufacture of chemicals. Research.  
**Product type** Liquid.

## 2. Hazards identification

Classification **Xi; R36/37/38**

Risk phrases **R36/37/38- Irritating to eyes, respiratory system and skin.**

### Statement of hazardous/dangerous nature

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

## 3. Composition/information on ingredients

Mixture **Yes.**

#### Ingredient name

glycerol  
sodium hydroxide

#### CAS number

56-81-5  
1310-73-2

#### Concentration

20 - 22  
0.5 - 1

#### Additional information

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

**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.**

## 4. First-aid measures

### First-aid measures

**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.

**Skin contact** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.



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<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 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.
<b>Ingestion</b>	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.
<b>Protection of first-aiders</b>	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.

## 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>	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. In a fire or if heated, a pressure increase will occur and the container may burst.
<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.
<b>Hazardous combustion products</b>	Decomposition products may include the following materials: carbon dioxide carbon monoxide

## 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
<b>Environmental precautions</b>	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).
<b>Methods for cleaning up</b>	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
<b>Small spill</b>	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.

## 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. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.
<b>Storage</b>	Store between the following temperatures: 0 to 50°C (32 to 122°F). 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.

## 8. Exposure controls/personal protection

### Occupational exposure limits

<b><u>Ingredient name</u></b>	<b><u>Occupational exposure limits</u></b>
glycerol	<b>Safe Work Australia (Australia, 4/2013).</b> TWA: 10 mg/m³ 8 hours.
sodium hydroxide	<b>Safe Work Australia (Australia, 4/2013).</b> TWA: 2 mg/m³ 8 hours.



<b>Recommended monitoring procedures</b>	<p>If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.</p>
<b>Engineering measures</b>	<p>Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.</p>
<b>Hygiene measures</b>	<p>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.</p>
<b>Personal protection</b>	
<b>Eyes</b>	<p>Use 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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.</p>
<b>Hands</b>	<p>Use 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.</p>
<b>Respiratory</b>	<p>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.</p>
<b>Skin</b>	<p>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.</p>
<b>Environmental exposure controls</b>	<p>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.</p>

## 9. Physical and chemical properties

<b>Physical state</b>	Liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Odourless.
<b>Solubility</b>	Easily soluble in the following materials: cold water and hot water.
<b>Flame duration</b>	Not applicable.

## 10. Stability and reactivity

<b>Chemical stability</b>	The product is stable.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	No specific data.
<b>Materials to avoid</b>	No specific data.

## 11. Toxicological information

### Potential acute health effects

<b>Inhalation</b>	Irritating to respiratory system.
<b>Ingestion</b>	Irritating to mouth, throat and stomach.
<b>Skin contact</b>	Irritating to skin.
<b>Eye contact</b>	Irritating to eyes.

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
glycerol	LD50 Oral	Rat	12600 mg/kg	-
<b>Conclusion/Summary</b>	Not available.			

### Potential chronic health effects

#### Chronic toxicity

<b>Conclusion/Summary</b>	Not available.
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#### Irritation/Corrosion

<b>Conclusion/Summary</b>	Not available.
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#### Sensitiser

<b>Conclusion/Summary</b>	Not available.
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#### Carcinogenicity

<b>Conclusion/Summary</b>	Not available.
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**Mutagenicity**

**Conclusion/Summary** Not available.

**Teratogenicity**

**Conclusion/Summary** Not available.

**Reproductive toxicity**

**Conclusion/Summary** Not available.

**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.

**Teratogenicity** 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** Adverse symptoms may include the following:  
respiratory tract irritation  
coughing

**Ingestion** No specific data.

**Skin** Adverse symptoms may include the following:  
irritation  
redness


**Eyes** Adverse symptoms may include the following:  
irritation  
watering  
redness

**Target organs**  Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, skin, eyes.

**12. Ecological information**


**Ecotoxicity** No known significant effects or critical hazards.

**Aquatic ecotoxicity**

Product/ingredient name	Test	Result	Species	Exposure
 Sodium hydroxide	Acute EC50 40.38 mg/l Fresh water		Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 125 ppm Fresh water		Fish - Gambusia affinis - Adult	96 hours
<b>Conclusion/Summary</b>	Not available.			

**Persistence/degradability**

**Conclusion/Summary** Not available.


Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
 glycerol	-	>60%; 28 day(s)	Readily

**Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
 glycerol	-1.76	-	low

**Other adverse effects** No known significant effects or critical hazards.

**13. Disposal considerations**

**Methods of disposal**  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 spilt material and runoff and contact with soil, waterways, drains and sewers.



## 14 . Transport information

Regulation	UN number	Proper shipping name	Class	PG	Label	Additional information
ADG	Not regulated.	-	-	-		-
ADR	Not regulated.	-	-	-		-
IMDG	Not regulated.	-	-	-		-
IATA	Not regulated.	-	-	-		-

PG\* : Packing group

## 15 . Regulatory information

### Standard Uniform Schedule of Medicine and Poisons

Not regulated.

### Control of Scheduled Carcinogenic Substances

#### Ingredient name

#### Schedule

Not available.

#### Australia inventory (AICS)

All components are listed or exempted.

#### EU Classification

Xi; R36/37/38

#### HCS Classification

Irritating material  
Target organ effects

## 16 . Other information

### History

Date of printing	24 February 2015	Date of previous issue	16 April 2009
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Indicates information that has changed from previously issued version.

Enquiries regarding MSDS content should be directed to: our local sales office.

### 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.



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