

# SAFETY DATA SHEET



3100 OFFGEL Low Res Kit - pH 4-7, Part Number 5188-6427

## SECTION 1: Identification of the substance/mixture and of the company/ undertaking

### 1.1 Product identifier

<b>Product name</b>	: 3100 OFFGEL Low Res Kit - pH 4-7, Part Number 5188-6427	
<b>Part No. (Kit)</b>	: 5188-6427	
<b>Part No.</b>	: OFFGEL Ampholyte 4-7	5188-6438
	Glycerol 50 percent	5188-6440
	Mineral Oil	5188-6443
	Thiourea, Part Number	5188-6436
	5188-6436	
	Urea	5188-6435
	Dithiotreitol	5188-6439

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

Identified uses	
Analytical chemistry.	
OFFGEL Ampholyte 4-7	1 ml vials
Glycerol 50 percent	10 ml
Mineral Oil	50 ml
Thiourea, Part Number 5188-6436	9.1 g
Urea	25.2 g
Dithiotreitol	0.6 g

### 1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG  
Hewlett-Packard-Str. 8  
76337 Waldbronn  
Germany  
0800 603 1000

**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(44)-870-8200418

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

<b>Product definition</b>	: OFFGEL Ampholyte 4-7	Mono-constituent substance
	Glycerol 50 percent	Mixture
	Mineral Oil	Mono-constituent substance
	Thiourea, Part Number	Mono-constituent substance
	5188-6436	
	Urea	Mono-constituent substance
	Dithiotreitol	Mono-constituent substance

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

##### **Glycerol 50 percent**

H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

##### **Mineral Oil**

H413 LONG-TERM AQUATIC HAZARD - Category 4

##### **Thiourea, Part Number 5188-6436**

**Date of issue/Date of revision** : 28/05/2014

**SECTION 2: Hazards identification**

H302 ACUTE TOXICITY (oral) - Category 4  
 H351 CARCINOGENICITY - Category 2  
 H361d TOXIC TO REPRODUCTION (Unborn child) - Category 2  
 H411 LONG-TERM AQUATIC HAZARD - Category 2

**Urea**  
 H400 ACUTE AQUATIC HAZARD - Category 1

**Dithiotreitol**  
 H302 ACUTE TOXICITY (oral) - Category 4  
 H315 SKIN CORROSION/IRRITATION - Category 2  
 H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
 H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
 H412 LONG-TERM AQUATIC HAZARD - Category 3

**Ingredients of unknown ecotoxicity** :

OFFGEL Ampholyte 4-7	Not applicable.
Glycerol 50 percent	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 50%
Mineral Oil	Not applicable.
Thiourea, Part Number 5188-6436	Not applicable.
Urea	Not applicable.
Dithiotreitol	Not applicable.

**Classification according to Directive 1999/45/EC [DPD]**

OFFGEL Ampholyte 4-7	The product is not classified as dangerous according to Directive 67/548/EEC and its amendments.
Glycerol 50 percent	The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
Mineral Oil	The product is not classified as dangerous according to Directive 67/548/EEC and its amendments.
Thiourea, Part Number 5188-6436	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
Urea	The product is classified as dangerous according to Directive 67/548/EEC and its amendments.
Dithiotreitol	The product is classified as dangerous according to Directive 67/548/EEC and its amendments.

**Classification** :

OFFGEL Ampholyte 4-7	Not classified.
Glycerol 50 percent	Not classified.
Mineral Oil	Not classified.
Thiourea, Part Number 5188-6436	Carc. Cat. 3; R40 Repr. Cat. 3; R63 Xn; R22 N; R51/53
Urea	N; R50
Dithiotreitol	Xn; R22 Xi; R36/37/38

**Human health hazards** :

OFFGEL Ampholyte 4-7	Not applicable.
Glycerol 50 percent	Not applicable.
Mineral Oil	Not applicable.
Thiourea, Part Number 5188-6436	Limited evidence of a carcinogenic effect. Possible risk of harm to the unborn child. Harmful if swallowed.
Urea	Not applicable.
Dithiotreitol	Harmful if swallowed. Irritating to eyes, respiratory system and skin.

**Environmental hazards** :

OFFGEL Ampholyte 4-7	Not applicable.
Glycerol 50 percent	Not applicable.
Mineral Oil	Not applicable.
Thiourea, Part Number 5188-6436	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Urea	Very toxic to aquatic organisms.
Dithiotreitol	Not applicable.

See Section 16 for the full text of the R phrases or H statements declared above.

## SECTION 2: Hazards identification

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

### 2.2 Label elements

#### Hazard pictograms



#### Signal word

: OFFGEL Ampholyte 4-7  
Glycerol 50 percent  
Mineral Oil  
Thiourea, Part Number  
5188-6436  
Urea  
Dithiotreitol

No signal word.  
Warning  
No signal word.  
Warning  
Warning  
Warning

#### Hazard statements

: OFFGEL Ampholyte 4-7  
Glycerol 50 percent

Mineral Oil  
Thiourea, Part Number  
5188-6436

Urea

Dithiotreitol

No known significant effects or critical hazards.  
**GHS08** -  
May cause damage to organs through prolonged or repeated exposure.  
May cause long lasting harmful effects to aquatic life.  
**GHS07** -  
Harmful if swallowed.  
**GHS08** -  
Suspected of causing cancer.  
Suspected of damaging the unborn child.  
**GHS09** -  
Toxic to aquatic life with long lasting effects.  
**GHS09** -  
Very toxic to aquatic life.  
**GHS07** -  
Harmful if swallowed.  
Causes skin irritation.  
May cause respiratory irritation.  
Causes serious eye irritation.  
Harmful to aquatic life with long lasting effects.

#### Precautionary statements

##### Prevention

: OFFGEL Ampholyte 4-7  
Glycerol 50 percent  
Mineral Oil  
Thiourea, Part Number  
5188-6436

Urea  
Dithiotreitol

Not applicable.  
P260 - Do not breathe vapour.  
P273 - Avoid release to the environment.  
P201 - Obtain special instructions before use.  
P281 - Use personal protective equipment as required.  
P273 - Avoid release to the environment.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves. Wear eye or face protection.  
P273 - Avoid release to the environment.

##### Response

: OFFGEL Ampholyte 4-7  
Glycerol 50 percent  
Mineral Oil  
Thiourea, Part Number  
5188-6436

Urea  
Dithiotreitol

Not applicable.  
P314 - Get medical attention if you feel unwell.  
Not applicable.  
P308 + P313 - IF exposed or concerned: Get medical attention.  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.  
P391 - Collect spillage.  
P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

**SECTION 2: Hazards identification**

<b>Storage</b>	:	OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	Not applicable. Not applicable. Not applicable. P405 - Store locked up. Not applicable. P405 - Store locked up.
<b>Disposal</b>	:	OFFGEL Ampholyte 4-7 Glycerol 50 percent  Mineral Oil  Thiourea, Part Number 5188-6436 Urea  Dithiotreitol	Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazardous ingredients</b>	:	<b>OFFGEL Ampholyte 4-7</b> OFFGEL Ampholyte 4-7  <b>Glycerol 50 percent</b> Glycerol  <b>Mineral Oil</b> White mineral oil (petroleum)  <b>Thiourea, Part Number 5188-6436</b> Thiourea, Part Number 5188-6436  <b>Urea</b> Urea  <b>Dithiotreitol</b> (R*,R*)-1,4-Dimercaptobutane-2,3-diol	
<b>Supplemental label elements</b>	:	OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b><u>Special packaging requirements</u></b>			
<b>Tactile warning of danger</b>	:	OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b>2.3 Other hazards</b>			
<b>Other hazards which do not result in classification</b>	:	OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil  Thiourea, Part Number 5188-6436 Urea  Dithiotreitol	None known. None known. Defatting to the skin. Prolonged or repeated contact may dry skin and cause irritation. None known.  Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. None known.

**SECTION 3: Composition/information on ingredients**

**Substance/mixture** : OFFGEL Ampholyte 4-7 Mono-constituent substance  
 Glycerol 50 percent Mixture  
 Mineral Oil Mono-constituent substance  
 Thiourea, Part Number 5188-6436 Mono-constituent substance  
 Urea Mono-constituent substance  
 Dithiotreitol Mono-constituent substance

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
<b>OFFGEL Ampholyte 4-7</b> OFFGEL Ampholyte 4-7	-	100	Not classified.	Not classified.	[A]
<b>Glycerol 50 percent</b> Glycerol	EC: 200-289-5 CAS: 56-81-5	>=50 - <75	Not classified.	STOT RE 2, H373 (kidneys) (inhalation)	[1]
<b>Mineral Oil</b> White mineral oil (petroleum)	EC: 232-455-8 CAS: 8042-47-5	100	Not classified.	Aquatic Chronic 4, H413	[A]
<b>Thiourea, Part Number 5188-6436</b> Thiourea	EC: 200-543-5 CAS: 62-56-6 Index: 612-082-00-0	100	Carc. Cat. 3; R40 Repr. Cat. 3; R63 Xn; R22 N; R51/53	Acute Tox. 4, H302 Carc. 2, H351 Repr. 2, H361d (Unborn child) Aquatic Chronic 2, H411	[A]
<b>Urea</b> Urea	EC: 200-315-5 CAS: 57-13-6	100	N; R50	Aquatic Acute 1, H400	[A]
<b>Dithiotreitol</b> (R*,R*)-1, 4-Dimercaptobutane-2, 3-diol	EC: 222-468-7 CAS: 3483-12-3	100	Not classified.  <b>See Section 16 for the full text of the R-phrases declared above.</b>	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Chronic 3, H412 <b>See Section 16 for the full text of the H statements declared above.</b>	[A]

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.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [A] Constituent
- [B] Impurity
- [C] Stabilising additive

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

**SECTION 4: First aid measures****4.1 Description of first aid measures**

<b>Eye contact</b>	: OFFGEL Ampholyte 4-7	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.
	Glycerol 50 percent	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 following exposure or if feeling unwell.
	Mineral Oil	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.
	Thiourea, Part Number 5188-6436	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.
	Urea	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.
	Dithiotreitol	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.
<b>Inhalation</b>	: OFFGEL Ampholyte 4-7	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Glycerol 50 percent	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 following exposure or if feeling unwell. 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.
	Mineral Oil	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.
	Thiourea, Part Number 5188-6436	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 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. 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.
	Urea	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-

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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. 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.

Dithiotreitol

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 necessary, call a poison center or physician. 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.

**Skin contact**

: OFFGEL Ampholyte 4-7

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Glycerol 50 percent

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Mineral Oil

Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Thiourea, Part Number 5188-6436

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.

Urea

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.

Dithiotreitol

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.

**Ingestion**

: OFFGEL Ampholyte 4-7

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.

Glycerol 50 percent

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 following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Mineral Oil

Loosen tight clothing such as a collar, tie, belt or waistband. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position

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		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.
Thiourea, Part Number 5188-6436		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 necessary, call a poison center or physician. 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.
Urea		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.
Dithiotreitol		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 necessary, call a poison center or physician. 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>	: OFFGEL Ampholyte 4-7	No action shall be taken involving any personal risk or without suitable training.
	Glycerol 50 percent	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.
	Mineral Oil	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.
	Thiourea, Part Number 5188-6436	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.



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Urea	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.
Dithiotreitol	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**4.2 Most important symptoms and effects, both acute and delayed**

Potential acute health effects

<b>Eye contact</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Inhalation</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes. Causes serious eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Skin contact</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea	Dithiotreitol May cause respiratory irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. Defatting to the skin. May cause skin dryness and irritation. No known significant effects or critical hazards.
<b>Ingestion</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	No known significant effects or critical hazards. Causes skin irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. Harmful if swallowed. No known significant effects or critical hazards. Harmful if swallowed. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

<b>Eye contact</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea	No specific data. No specific data. No specific data. No specific data.
	Dithiotreitol	Adverse symptoms may include the following: irritation redness Adverse symptoms may include the following: pain or irritation watering redness

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<b>Inhalation</b>	: OFFGEL Ampholyte 4-7	No specific data.
	Glycerol 50 percent	No specific data.
	Mineral Oil	No specific data.
	Thiourea, Part Number 5188-6436	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	Urea	Adverse symptoms may include the following: respiratory tract irritation coughing
	Dithiotreitol	Adverse symptoms may include the following: respiratory tract irritation coughing
<b>Skin contact</b>	: OFFGEL Ampholyte 4-7	No specific data.
	Glycerol 50 percent	No specific data.
	Mineral Oil	Adverse symptoms may include the following: irritation dryness cracking
	Thiourea, Part Number 5188-6436	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	Urea	No specific data.
	Dithiotreitol	Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	: OFFGEL Ampholyte 4-7	No specific data.
	Glycerol 50 percent	No specific data.
	Mineral Oil	No specific data.
	Thiourea, Part Number 5188-6436	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	Urea	No specific data.
	Dithiotreitol	No specific data.

**4.3 Indication of any immediate medical attention and special treatment needed**

<b>Notes to physician</b>	: OFFGEL Ampholyte 4-7	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Glycerol 50 percent	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Mineral Oil	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Thiourea, Part Number 5188-6436	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.
	Urea	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.
	Dithiotreitol	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: OFFGEL Ampholyte 4-7	No specific treatment.
	Glycerol 50 percent	No specific treatment.
	Mineral Oil	No specific treatment.
	Thiourea, Part Number 5188-6436	No specific treatment.
	Urea	No specific treatment.
	Dithiotreitol	No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: OFFGEL Ampholyte 4-7	Use an extinguishing agent suitable for the surrounding fire.
	Glycerol 50 percent	Use an extinguishing agent suitable for the surrounding fire.
	Mineral Oil	Use dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray (fog).
	Thiourea, Part Number 5188-6436	Use an extinguishing agent suitable for the surrounding fire.
	Urea	Use dry chemical powder.
	Dithiotreitol	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: OFFGEL Ampholyte 4-7	None known.
	Glycerol 50 percent	None known.
	Mineral Oil	Do not use water jet.
	Thiourea, Part Number 5188-6436	None known.
	Urea	Do not use water jet.
	Dithiotreitol	None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Hazards from the substance or mixture</b>	: OFFGEL Ampholyte 4-7	In a fire or if heated, a pressure increase will occur and the container may burst.
	Glycerol 50 percent	In a fire or if heated, a pressure increase will occur and the container may burst.
	Mineral Oil	In a fire or if heated, a pressure increase will occur and the container may burst. This material may cause long lasting harmful effects to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	Thiourea, Part Number 5188-6436	This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	Urea	Fine dust clouds may form explosive mixtures with air. This material is very toxic to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	Dithiotreitol	This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
<b>Hazardous combustion products</b>	: OFFGEL Ampholyte 4-7	No specific data.
	Glycerol 50 percent	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Mineral Oil	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Thiourea, Part Number 5188-6436	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
	Urea	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	Dithiotreitol	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides

### 5.3 Advice for firefighters

**SECTION 5: Firefighting measures**

<b>Special precautions for fire-fighters</b>	: OFFGEL Ampholyte 4-7	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.
	Glycerol 50 percent	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.
	Mineral Oil	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.
	Thiourea, Part Number 5188-6436	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.
	Urea	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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	Dithiotreitol	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>	: OFFGEL Ampholyte 4-7	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Glycerol 50 percent	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Mineral Oil	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Thiourea, Part Number 5188-6436	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Urea	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Dithiotreitol	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

<b>For non-emergency personnel</b>	: OFFGEL Ampholyte 4-7	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.
	Glycerol 50 percent	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.
	Mineral Oil	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.
	Thiourea, Part Number 5188-6436	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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Urea	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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Dithiotreitol	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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: OFFGEL Ampholyte 4-7	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".
	Glycerol 50 percent	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".
	Mineral Oil	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".
	Thiourea, Part Number 5188-6436	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".
	Urea	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".
	Dithiotreitol	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and

**SECTION 6: Accidental release measures**

unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions**

: OFFGEL Ampholyte 4-7	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).
Glycerol 50 percent	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).
Mineral Oil	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). Water polluting material. May be harmful to the environment if released in large quantities.
Thiourea, Part Number 5188-6436	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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
Urea	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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
Dithiotreitol	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). Water polluting material. May be harmful to the environment if released in large quantities.

**6.3 Methods and materials for containment and cleaning up****Methods for cleaning up** : OFFGEL Ampholyte 4-7

Glycerol 50 percent	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.
Mineral Oil	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.
Thiourea, Part Number 5188-6436	Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Urea	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Dithiotreitol	Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal.

**SECTION 6: Accidental release measures**

Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

<b>Protective measures</b>	:	OFFGEL Ampholyte 4-7	Put on appropriate personal protective equipment (see Section 8).
		Glycerol 50 percent	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.
		Mineral Oil	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. 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.
		Thiourea, Part Number 5188-6436	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.
		Urea	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid release to the environment. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. 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. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
		Dithiotreitol	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. 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

**SECTION 7: Handling and storage**

<b>Advice on general occupational hygiene</b>	: OFFGEL Ampholyte 4-7	product residue and can be hazardous. Do not reuse container. 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.
	Glycerol 50 percent	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.
	Mineral Oil	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.
	Thiourea, Part Number 5188-6436	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.
	Urea	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.
	Dithiotreitol	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.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	: OFFGEL Ampholyte 4-7	Store between the following temperatures: 4 to 8°C (39.2 to 46.4°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.
	Glycerol 50 percent	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.
	Mineral Oil	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



**SECTION 7: Handling and storage**

Thiourea, Part Number 5188-6436	appropriate containment to avoid environmental contamination. 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. Store locked up. 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.
Urea	Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.
Dithiotreitol	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. Store locked up. 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.

**7.3 Specific end use(s)**

<b>Recommendations</b>	:	OFFGEL Ampholyte 4-7	Industrial applications, Professional applications.
		Glycerol 50 percent	Industrial applications, Professional applications.
		Mineral Oil	Industrial applications, Professional applications.
		Thiourea, Part Number 5188-6436	Industrial applications, Professional applications.
		Urea	Industrial applications, Professional applications.
		Dithiotreitol	Industrial applications, Professional applications.

**Industrial sector specific solutions** : Not applicable.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational exposure limits**

No exposure limit value known.

**Recommended monitoring procedures** : 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 monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Derived effect levels**

No DNELs available.

## SECTION 8: Exposure controls/personal protection

### Predicted effect concentrations

No PNECs available.

### 8.2 Exposure controls

**Appropriate engineering controls** : 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.

### 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. 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** : 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.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: OFFGEL Ampholyte 4-7	Liquid. [Viscous liquid.]
	Glycerol 50 percent	Liquid.
	Mineral Oil	Liquid. [Oily liquid.]
	Thiourea, Part Number 5188-6436	Solid. [Crystals.]
	Urea	Solid. [Crystals. / Powder. / Granular solid.]
	Dithiotreitol	Solid.
<b>Colour</b>	: OFFGEL Ampholyte 4-7	Colourless to light yellow.
	Glycerol 50 percent	Not available.
	Mineral Oil	Colourless.
	Thiourea, Part Number 5188-6436	White.
	Urea	White.
	Dithiotreitol	Not available.

**SECTION 9: Physical and chemical properties**

<b>Odour</b>	: OFFGEL Ampholyte 4-7	Odourless.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Thiourea, Part Number 5188-6436	Not available.
	Urea	Odourless. / Ammoniacal.
	Dithiotreitol	Not available.
<b>Odour threshold</b>	: OFFGEL Ampholyte 4-7	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Thiourea, Part Number 5188-6436	Not available.
	Urea	Not available.
	Dithiotreitol	Not available.
<b>pH</b>	: OFFGEL Ampholyte 4-7	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Thiourea, Part Number 5188-6436	Not available.
	Urea	7.2 [Conc. (% w/w): 10%]
	Dithiotreitol	4.3 [Conc. (% w/w): 5%]
<b>Melting point/freezing point</b>	: OFFGEL Ampholyte 4-7	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	-60 to -9°C
	Thiourea, Part Number 5188-6436	Not available.
	Urea	134°C
	Dithiotreitol	42 to 43°C
<b>Initial boiling point and boiling range</b>	: OFFGEL Ampholyte 4-7	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	179 to 210°C
	Thiourea, Part Number 5188-6436	Not available.
	Urea	Decomposition temperature: >135°C
	Dithiotreitol	125 to 130°C
<b>Flash point</b>	: OFFGEL Ampholyte 4-7	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Closed cup: 135°C
	Thiourea, Part Number 5188-6436	Not available.
	Urea	Not available.
	Dithiotreitol	[Product does not sustain combustion.]
<b>Evaporation rate</b>	: OFFGEL Ampholyte 4-7	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Thiourea, Part Number 5188-6436	Not available.
	Urea	Not available.
	Dithiotreitol	Not available.
<b>Flammability (solid, gas)</b>	: OFFGEL Ampholyte 4-7	Not applicable.
	Glycerol 50 percent	Not applicable.
	Mineral Oil	Not applicable.
	Thiourea, Part Number 5188-6436	Not available.
	Urea	Not available.
	Dithiotreitol	Not available.

**SECTION 9: Physical and chemical properties**

<b>Upper/lower flammability or explosive limits</b>	:	OFFGEL Ampholyte 4-7	Not available.
		Glycerol 50 percent	Not available.
		Mineral Oil	Not available.
		Thiourea, Part Number 5188-6436	Not available.
		Urea	Not available.
		Dithiotreitol	Not available.
<b>Vapour pressure</b>	:	OFFGEL Ampholyte 4-7	Not available.
		Glycerol 50 percent	Not available.
		Mineral Oil	0.011 kPa [room temperature]
		Thiourea, Part Number 5188-6436	Not available.
		Urea	0 kPa [room temperature]
		Dithiotreitol	Not available.
<b>Vapour density</b>	:	OFFGEL Ampholyte 4-7	Not available.
		Glycerol 50 percent	Not available.
		Mineral Oil	Not available.
		Thiourea, Part Number 5188-6436	Not available.
		Urea	Not available.
		Dithiotreitol	Not available.
<b>Relative density</b>	:	OFFGEL Ampholyte 4-7	Not available.
		Glycerol 50 percent	Not available.
		Mineral Oil	0.875 to 0.905
		Thiourea, Part Number 5188-6436	1.41
		Urea	1.32
		Dithiotreitol	Not available.
<b>Solubility(ies)</b>	:	OFFGEL Ampholyte 4-7	Easily soluble in the following materials: cold water and hot water.
		Glycerol 50 percent	Soluble in the following materials: cold water and hot water.
		Mineral Oil	Soluble in the following materials: diethyl ether. Insoluble in the following materials: cold water and hot water.
		Thiourea, Part Number 5188-6436	Easily soluble in the following materials: cold water and hot water.
		Urea	Easily soluble in the following materials: cold water and hot water.
		Dithiotreitol	Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	:	OFFGEL Ampholyte 4-7	Not available.
		Glycerol 50 percent	Not available.
		Mineral Oil	>6
		Thiourea, Part Number 5188-6436	Not available.
		Urea	<-1.73
		Dithiotreitol	Not available.
<b>Auto-ignition temperature</b>	:	OFFGEL Ampholyte 4-7	Not available.
		Glycerol 50 percent	Not available.
		Mineral Oil	260 to 371.11°C
		Thiourea, Part Number 5188-6436	Not available.
		Urea	Not available.
		Dithiotreitol	Not available.
<b>Decomposition temperature</b>	:	OFFGEL Ampholyte 4-7	Not available.
		Glycerol 50 percent	Not available.
		Mineral Oil	Not available.
		Thiourea, Part Number 5188-6436	Not available.
		Urea	>135°C
		Dithiotreitol	Not available.

**SECTION 9: Physical and chemical properties**

<b>Viscosity</b>	: OFFGEL Ampholyte 4-7	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Kinematic (40°C): >0.013 cm <sup>2</sup> /s
	Thiourea, Part Number 5188-6436	Not available.
	Urea	Dynamic (room temperature): 1.9 mPa·s
	Dithiotreitol	Not available.
<b>Explosive properties</b>	: OFFGEL Ampholyte 4-7	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Thiourea, Part Number 5188-6436	Not available.
	Urea	May cause fire and explosion in contact with phosphorus and chlorine.
	Dithiotreitol	Not available.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: OFFGEL Ampholyte 4-7	No specific test data related to reactivity available for this product or its ingredients.
	Glycerol 50 percent	No specific test data related to reactivity available for this product or its ingredients.
	Mineral Oil	No specific test data related to reactivity available for this product or its ingredients.
	Thiourea, Part Number 5188-6436	No specific test data related to reactivity available for this product or its ingredients.
	Urea	No specific test data related to reactivity available for this product or its ingredients.
	Dithiotreitol	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: OFFGEL Ampholyte 4-7	The product is stable.
	Glycerol 50 percent	The product is stable.
	Mineral Oil	The product is stable.
	Thiourea, Part Number 5188-6436	The product is stable.
	Urea	The product is stable.
	Dithiotreitol	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: OFFGEL Ampholyte 4-7	Under normal conditions of storage and use, hazardous reactions will not occur.
	Glycerol 50 percent	Under normal conditions of storage and use, hazardous reactions will not occur.
	Mineral Oil	Under normal conditions of storage and use, hazardous reactions will not occur.
	Thiourea, Part Number 5188-6436	Under normal conditions of storage and use, hazardous reactions will not occur.
	Urea	Under normal conditions of storage and use, hazardous reactions will not occur.
	Dithiotreitol	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: OFFGEL Ampholyte 4-7	No specific data.
	Glycerol 50 percent	No specific data.
	Mineral Oil	No specific data.
	Thiourea, Part Number 5188-6436	No specific data.
	Urea	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges.

## SECTION 10: Stability and reactivity

		To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation. No specific data.
	Dithiotreitol	
<b>10.5 Incompatible materials</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea	No specific data. No specific data. No specific data. No specific data.
	Dithiotreitol	Reactive or incompatible with the following materials: oxidizing materials No specific data.
<b>10.6 Hazardous decomposition products</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>Glycerol 50 percent</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
<b>Mineral Oil</b> White mineral oil (petroleum)	LD50 Oral	Rat	>5000 mg/kg	-
<b>Thiourea, Part Number 5188-6436</b> Thiourea	LD50 Oral	Rat	125 mg/kg	-
<b>Urea</b> Urea	LD50 Oral	Rat	8471 mg/kg	-

#### Acute toxicity estimates

Route	ATE value
<b>Thiourea, Part Number 5188-6436</b> Oral	500 mg/kg

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>Glycerol 50 percent</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

#### Sensitiser

## SECTION 11: Toxicological information

Product/ingredient name	Route of exposure	Species	Result
<b>Mineral Oil</b> White mineral oil (petroleum)	skin	Guinea pig	Not sensitizing

### Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
<b>Dithiotreitol</b> (R*,R*)-1,4-Dimercaptobutane-2,3-diol	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
<b>Glycerol 50 percent</b> Glycerol	Category 2	Inhalation	kidneys

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

<b>Inhalation</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. May cause respiratory irritation.
<b>Ingestion</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Harmful if swallowed. No known significant effects or critical hazards. Harmful if swallowed. Irritating to mouth, throat and stomach.
<b>Skin contact</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	No known significant effects or critical hazards. No known significant effects or critical hazards. Defatting to the skin. May cause skin dryness and irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes skin irritation.
<b>Eye contact</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes. Causes serious eye irritation.

**SECTION 11: Toxicological information**Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation</b>	:	OFFGEL Ampholyte 4-7	No specific data.
		Glycerol 50 percent	No specific data.
		Mineral Oil	No specific data.
		Thiourea, Part Number 5188-6436	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		Urea	Adverse symptoms may include the following: respiratory tract irritation coughing
		Dithiotreitol	Adverse symptoms may include the following: respiratory tract irritation coughing
<b>Ingestion</b>	:	OFFGEL Ampholyte 4-7	No specific data.
		Glycerol 50 percent	No specific data.
		Mineral Oil	No specific data.
		Thiourea, Part Number 5188-6436	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		Urea	No specific data.
		Dithiotreitol	No specific data.
<b>Skin contact</b>	:	OFFGEL Ampholyte 4-7	No specific data.
		Glycerol 50 percent	No specific data.
		Mineral Oil	Adverse symptoms may include the following: irritation dryness cracking
		Thiourea, Part Number 5188-6436	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		Urea	No specific data.
		Dithiotreitol	Adverse symptoms may include the following: irritation redness
<b>Eye contact</b>	:	OFFGEL Ampholyte 4-7	No specific data.
		Glycerol 50 percent	No specific data.
		Mineral Oil	No specific data.
		Thiourea, Part Number 5188-6436	No specific data.
		Urea	Adverse symptoms may include the following: irritation redness
		Dithiotreitol	Adverse symptoms may include the following: pain or irritation watering redness

Delayed and immediate effects and also chronic effects from short and long term exposureShort 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>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent  Mineral Oil  Thiourea, Part Number 5188-6436 Urea  Dithiotreitol	No known significant effects or critical hazards. May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. No known significant effects or critical hazards. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Teratogenicity</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Suspected of damaging the unborn child. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Developmental effects</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b><u>Toxicokinetics</u></b>		
<b>Absorption</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	Not available. Not available. Not available. Not available. Not available. Not available.
<b>Distribution</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436 Urea Dithiotreitol	Not available. Not available. Not available. Not available. Not available. Not available.

## SECTION 11: Toxicological information

<b>Metabolism</b>	:	OFFGEL Ampholyte 4-7	Not available.
		Glycerol 50 percent	Not available.
		Mineral Oil	Not available.
		Thiourea, Part Number 5188-6436	Not available.
		Urea	Not available.
		Dithiotreitol	Not available.
<b>Elimination</b>	:	OFFGEL Ampholyte 4-7	Not available.
		Glycerol 50 percent	Not available.
		Mineral Oil	Not available.
		Thiourea, Part Number 5188-6436	Not available.
		Urea	Not available.
		Dithiotreitol	Not available.
<b>Other information</b>	:	Not available.	

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>Thiourea, Part Number 5188-6436</b> Thiourea	Acute EC50 4800 µg/l Fresh water	Algae - Scenedesmus abundans	96 hours
	Acute LC50 9000 to 18000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
<b>Urea</b> Urea	Acute EC50 3910000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
	Acute LC50 22.5 ppt Fresh water	Fish - Oreochromis mossambicus - Young	96 hours
	Chronic NOEC 2 g/L Fresh water	Fish - Heteropneustes fossilis	30 days
<b>Dithiotreitol</b> (R*,R*)-1,4-Dimercaptobutane-2,3-diol	Acute LC50 27000 to 30000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>Thiourea, Part Number 5188-6436</b> Thiourea	301C Ready Biodegradability - Modified MITI Test (I)	0 % - 34 days	-	10 mg/l Activated sludge
	301C Ready Biodegradability - Modified MITI Test (I)	0 % - 34 days	-	30 mg/l Activated sludge

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>Urea</b> Urea	-	-	Readily

### 12.3 Bioaccumulative potential

**SECTION 12: Ecological information**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>Glycerol 50 percent</b> Glycerol	-1.76	-	low
<b>Mineral Oil</b> White mineral oil (petroleum)	>6	-	high
<b>Thiourea, Part Number 5188-6436</b> Thiourea	-1.08	2	low
<b>Urea</b> Urea	<-1.73	-	low

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

**PBT** : Not applicable.

**vPvB** : Not applicable.

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

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**Product

**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.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : 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.

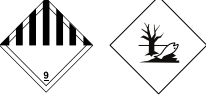
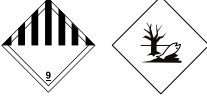

**SECTION 14: Transport information**

**Additional information** : **Special provisions**  
251, 340

**Remarks**

Excepted Quantity

**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	UN3316	UN3316	UN3316
<b>14.2 UN proper shipping name</b>	CHEMICAL KIT	CHEMICAL KIT. Marine pollutant (Thiourea)	Chemical kit
<b>14.3 Transport hazard class(es)</b>	9 	9 	9 
<b>14.4 Packing group</b>	III	III	III
<b>14.5 Environmental hazards</b>	Yes.	Yes.	No.
<b>14.6 Special precautions for user</b>	<b>Transport within user's premises:</b> 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.	<b>Transport within user's premises:</b> 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.	<b>Transport within user's premises:</b> 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.
<b>Additional information</b>	<p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p><b><u>Hazard identification number</u></b> 90</p> <p><b><u>Limited quantity</u></b> 0</p> <p><b><u>Special provisions</u></b> 251, 340</p> <p><b><u>Tunnel code</u></b> (E)</p> <p><b><u>Remarks</u></b> LQ27</p>	<p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p><b><u>Emergency schedules (EmS)</u></b> F-A, _S-P_</p> <p><b><u>Special provisions</u></b> 251, 340</p>	<p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p> <p><b><u>Passenger and Cargo Aircraft</u></b> Quantity limitation: 10 kg Packaging instructions: 960</p> <p><b><u>Cargo Aircraft Only</u></b> Quantity limitation: 10 kg Packaging instructions: 960</p> <p><b><u>Limited Quantities - Passenger Aircraft</u></b> Quantity limitation: 1 kg Packaging instructions: Y960</p> <p><b><u>Special provisions</u></b> A44, A163</p> <p><b><u>Remarks</u></b> Excepted Quantity</p>

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

##### Substances of very high concern

None of the components are listed.

**Annex XVII -** : Not applicable.

**Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

##### Other EU regulations

**Europe inventory** : Not determined.

**Black List Chemicals** : Not listed

**Priority List Chemicals** : Not listed

**Integrated pollution prevention and control list (IPPC) - Air** : Not listed

**Integrated pollution prevention and control list (IPPC) - Water** : Not listed

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
<b>Thiourea, Part Number 5188-6436</b> Thiourea	Carc. 2, H351	-	Repr. 2, H361d (Unborn child)	-

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

## SECTION 16: Other information

🔍 Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number

#### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
<b>Glycerol 50 percent</b> STOT RE 2, H373	Calculation method
<b>Mineral Oil</b> Aquatic Chronic 4, H413	On basis of test data
<b>Thiourea, Part Number 5188-6436</b> Acute Tox. 4, H302 Carc. 2, H351 Repr. 2, H361d (Unborn child) Aquatic Chronic 2, H411	Calculation method Calculation method Calculation method Calculation method
<b>Urea</b>	

**Date of issue/Date of revision** : 28/05/2014

**SECTION 16: Other information**

Aquatic Acute 1, H400	On basis of test data
<b>Dithiotreitol</b> Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Chronic 3, H412	On basis of test data Expert judgment Expert judgment Expert judgment On basis of test data

<b>Full text of abbreviated H statements</b>	<b>: Glycerol 50 percent</b> H373  H373 (kidneys) (inhalation)  <b>Mineral Oil</b> H413  <b>Thiourea, Part Number 5188-6436</b> H302 H351 H361d (Unborn child) H411  <b>Urea</b> H400  <b>Dithiotreitol</b> H302 H315 H319 H335 (Respiratory tract irritation) H412	May cause damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure if inhaled. (kidneys)  May cause long lasting harmful effects to aquatic life.  Harmful if swallowed. Suspected of causing cancer. Suspected of damaging the unborn child. Toxic to aquatic life with long lasting effects.  Very toxic to aquatic life.  Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. (Respiratory tract irritation)  Harmful to aquatic life with long lasting effects.
<b>Full text of classifications [CLP/GHS]</b>	<b>: Glycerol 50 percent</b> STOT RE 2, H373  STOT RE 2, H373 (kidneys) (inhalation)  <b>Mineral Oil</b> Aquatic Chronic 4, H413  <b>Thiourea, Part Number 5188-6436</b> Acute Tox. 4, H302 Aquatic Chronic 2, H411 Carc. 2, H351 Repr. 2, H361d (Unborn child)  <b>Urea</b> Aquatic Acute 1, H400  <b>Dithiotreitol</b> Acute Tox. 4, H302 Aquatic Chronic 3, H412 Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335 (Respiratory tract irritation)	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) (inhalation) - Category 2  LONG-TERM AQUATIC HAZARD - Category 4  ACUTE TOXICITY (oral) - Category 4 LONG-TERM AQUATIC HAZARD - Category 2 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2  ACUTE AQUATIC HAZARD - Category 1  ACUTE TOXICITY (oral) - Category 4 LONG-TERM AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

**SECTION 16: Other information**

<b>Full text of abbreviated R phrases</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436  Urea Dithiotreitol	Not applicable. Not applicable. Not applicable. R40- Limited evidence of a carcinogenic effect. R63- Possible risk of harm to the unborn child. R22- Harmful if swallowed. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R50- Very toxic to aquatic organisms. R22- Harmful if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin.
<b>Full text of classifications [DSD/DPD]</b>	: OFFGEL Ampholyte 4-7 Glycerol 50 percent Mineral Oil Thiourea, Part Number 5188-6436  Urea Dithiotreitol	Not applicable. Not applicable. Not applicable. Carc. Cat. 3 - Carcinogen category 3 Repr. Cat. 3 - Toxic to reproduction category 3 Xn - Harmful N - Dangerous for the environment N - Dangerous for the environment Xn - Harmful Xi - Irritant
<b>Date of issue/ Date of revision</b>	: 28/05/2014	
<b>Date of previous issue</b>	: 05/12/2012.	
<b>Version</b>	: 3	

Notice to reader

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