

Agilent Technologies Australia Pty Ltd  
679 Springvale Road  
Mulgrave  
Victoria 3170, Australia  
1800 802 402

## 3100 OFFGEL Starter Kit, Part Number 5188-6444

### 1 . Identification of the material and supplier

#### Names

<b>Product name</b>	: 3100 OFFGEL Starter Kit, Part Number 5188-6444
<b>Part No. (Chemical Kit)</b>	: 5188-6444
<b>Part No.</b>	: OFFGEL Ampholyte 3-10 5188-6437 OFFGEL Ampholyte 4-7 5188-6438 Dithiotreitol 5188-6439 Thiourea 5188-6436 Glycerol 50 percent 5188-6440 Mineral Oil 5188-6443 Urea 5188-6435
<b>ADG</b>	: CHEMICAL KIT

#### Supplier

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

**Emergency telephone number** : CHEMTREC®: +(61)-290372994

#### Uses

**Area of application** : OFFGEL Ampholyte 3-10 Industrial applications, Professional applications.  
OFFGEL Ampholyte 4-7 Industrial applications, Professional applications.  
Dithiotreitol Industrial applications, Professional applications.  
Thiourea Industrial applications, Professional applications.  
Glycerol 50 percent Industrial applications, Professional applications.  
Mineral Oil Industrial applications, Professional applications.  
Urea Industrial applications, Professional applications.

**Material uses** : Analytical chemistry.  
OFFGEL Ampholyte 3-10 1 ml vials  
OFFGEL Ampholyte 4-7 1 ml vials  
Dithiotreitol 1.2 g  
Thiourea, Part Number 18.2 g  
5188-6436  
Glycerol 50 percent 20 ml  
Mineral Oil 50 ml  
Urea 50.4 g

### 2 . Hazards identification

## 2 . Hazards identification

<b>Classification</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol  Thiourea   Glycerol 50 percent Mineral Oil Urea	Not regulated. Not regulated. Xn; R22 Xi; R36/37/38 Carc. Cat. 3; R40 Repr. Cat. 3; R63 Xn; R22 N; R51/53 Not regulated. Not regulated. N; R50
<b>Risk phrases</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol  Thiourea   Glycerol 50 percent Mineral Oil Urea	Not classified. Not classified. R22- Harmful if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. 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. Not classified. Not classified. R50- Very toxic to aquatic organisms.
<b>Safety phrases</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea   Glycerol 50 percent Mineral Oil Urea	S36- Wear suitable protective clothing. S36- Wear suitable protective clothing. S36- Wear suitable protective clothing. S36/37- Wear suitable protective clothing and gloves. S61- Avoid release to the environment. Refer to special instructions/safety data sheet. S36- Wear suitable protective clothing. S36- Wear suitable protective clothing. S61- Avoid release to the environment. Refer to special instructions/safety data sheet.
<b>Statement of hazardous/ dangerous nature</b>	: OFFGEL Ampholyte 3-10  OFFGEL Ampholyte 4-7  Dithiotreitol  Thiourea  Glycerol 50 percent  Mineral Oil  Urea	NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. HAZARDOUS SUBSTANCE. DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

## 3 . Composition/information on ingredients

<b>Mixture</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil Urea	No. No. No. Yes. Yes. No. No.
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### 3 . Composition/information on ingredients

Ingredient name	CAS number	%
<b>Dithiotreitol</b> (R*,R*)-1,4-Dimercaptobutane-2,3-diol	3483-12-3	>60
<b>Thiourea</b> Thiourea	62-56-6	>60
<b>Glycerol 50 percent</b> Glycerol	56-81-5	30 - 60
<b>Mineral Oil</b> White mineral oil (petroleum)	8042-47-5	>60

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

<b>Inhalation</b>	: OFFGEL Ampholyte 3-10	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	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.
	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 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	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.
	Glycerol 50 percent	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Mineral Oil	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

## 4 . First-aid measures

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-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.

### Ingestion

: OFFGEL Ampholyte 3-10

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.

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.

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. 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

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. 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.

## 4 . First-aid measures

Glycerol 50 percent	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.
Mineral Oil	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.
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.

### Skin contact

: OFFGEL Ampholyte 3-10	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
OFFGEL Ampholyte 4-7	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
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.
Thiourea	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Glycerol 50 percent	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
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.
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.

## 4 . First-aid measures

<b>Eye contact</b>	<b>:</b> OFFGEL Ampholyte 3-10	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.
	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.
	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.
	Thiourea	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.
	Glycerol 50 percent	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.
	Mineral Oil	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. 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.
<b>Protection of first-aiders</b>	<b>:</b> OFFGEL Ampholyte 3-10	No action shall be taken involving any personal risk or without suitable training.
	OFFGEL Ampholyte 4-7	No action shall be taken involving any personal risk or without suitable training.
	Dithiotreitol	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	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.
	Glycerol 50 percent	No action shall be taken involving any personal risk or without suitable training.
	Mineral Oil	No action shall be taken involving any personal risk or without suitable training.
	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.
<b>Advice to doctor</b>	<b>:</b> OFFGEL Ampholyte 3-10	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	OFFGEL Ampholyte 4-7	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Dithiotreitol	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Thiourea	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The

## 4 . First-aid measures

Glycerol 50 percent	exposed person may need to be kept under medical surveillance for 48 hours. No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Mineral Oil	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
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.

## 5 . Fire-fighting measures

### Extinguishing media

<b>Suitable</b>	: OFFGEL Ampholyte 3-10	Use an extinguishing agent suitable for the surrounding fire.
	OFFGEL Ampholyte 4-7	Use an extinguishing agent suitable for the surrounding fire.
	Dithiotreitol	Use an extinguishing agent suitable for the surrounding fire.
	Thiourea	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).
	Urea	Use dry chemical powder.
<b>Not suitable</b>	: OFFGEL Ampholyte 3-10	None known.
	OFFGEL Ampholyte 4-7	None known.
	Dithiotreitol	None known.
	Thiourea	None known.
	Glycerol 50 percent	None known.
	Mineral Oil	Do not use water jet.
Urea	Do not use water jet.	
<b>Special exposure hazards</b>	: OFFGEL Ampholyte 3-10	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.
	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.
	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.
	Thiourea	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. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	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

## 5 . Fire-fighting measures

	Urea	is a fire. No action shall be taken involving any personal risk or without suitable training. 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. This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	OFFGEL Ampholyte 3-10	In a fire or if heated, a pressure increase will occur and the container may burst.
	OFFGEL Ampholyte 4-7	In a fire or if heated, a pressure increase will occur and the container may burst.
	Dithiotreitol	No specific fire or explosion hazard.
	Thiourea	No specific fire or explosion hazard.
	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.
	Urea	Fine dust clouds may form explosive mixtures with air.
<b>Hazardous thermal decomposition products</b>	: OFFGEL Ampholyte 3-10	No specific data.
	OFFGEL Ampholyte 4-7	No specific data.
	Dithiotreitol	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
	Thiourea	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
	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
	Urea	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
<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>Hazchem code</b>	: 2Z	

## 6 . Accidental release measures

<b>Personal precautions</b>	: OFFGEL Ampholyte 3-10	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 (see Section 8).
	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 (see Section 8).
	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 (see Section 8).
	Thiourea	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 (see Section 8).
	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. Put on appropriate personal protective equipment (see Section 8).
	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. Put on appropriate personal protective equipment (see Section 8).
	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 (see Section 8).
<b>Environmental precautions</b>	: OFFGEL Ampholyte 3-10	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).
	OFFGEL Ampholyte 4-7	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## 6 . Accidental release measures

Dithiotreitol	Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Thiourea	Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Glycerol 50 percent	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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Mineral Oil	Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Urea	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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### Methods for cleaning up

: OFFGEL Ampholyte 3-10	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.
OFFGEL Ampholyte 4-7	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.
Dithiotreitol	Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Thiourea	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.
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.

## 6 . Accidental release measures

Mineral Oil	disposal contractor. 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.
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.

## 7 . Handling and storage

<b>Handling</b>	: OFFGEL Ampholyte 3-10	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.
	OFFGEL Ampholyte 4-7	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.
	Dithiotreitol	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. 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.
	Thiourea	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. Avoid exposure during pregnancy. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Refer to special instructions/safety data sheet. 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

## 7 . Handling and storage

Glycerol 50 percent

a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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.

Mineral Oil

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.

Urea

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 dust. Avoid release to the environment. Refer to special instructions/safety data sheet. 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.

### Storage

: OFFGEL Ampholyte 3-10

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.

OFFGEL Ampholyte 4-7

Store between the following temperatures: 4 to 8°C (39.2 to 46.4°F). Store in accordance with

## 7 . Handling and storage

	<p>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.</p>
Dithiotreitol	<p>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.</p>
Thiourea	<p>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.</p>
Glycerol 50 percent	<p>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.</p>
Mineral Oil	<p>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.</p>
Urea	<p>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</p>

## 7 . Handling and storage

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

Ingredient name	Exposure limits
<b>Glycerol 50 percent</b> Glycerol	<b>Safe Work Australia (Australia, 4/2013).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
<b>Mineral Oil</b> White mineral oil (petroleum)	<b>Safe Work Australia (Australia, 4/2013).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: mist

**No additional exposure standard allocated for other ingredients/components covered by the MSDS other than those listed in the table above.**

**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 appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### Exposure controls

- Engineering measures** : 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.
- 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.
- Eyes** : 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: safety glasses with side-shields.
- Hands** : 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.
- Respiratory** : 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.
- Skin** : 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.
- 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.

## 9 . Physical and chemical properties

<b>Physical state</b>	: OFFGEL Ampholyte 3-10	Liquid. [Viscous liquid.]
	OFFGEL Ampholyte 4-7	Liquid. [Viscous liquid.]
	Dithiotreitol	Solid.
	Thiourea	Solid. [Crystals.]
	Glycerol 50 percent	Liquid.
	Mineral Oil	Liquid. [Oily liquid.]
<b>Colour</b>	Urea	Solid. [Crystals. / Powder. / Granular solid.]
	: OFFGEL Ampholyte 3-10	Colourless to light yellow.
	OFFGEL Ampholyte 4-7	Colourless to light yellow.
	Dithiotreitol	Not available.
	Thiourea	White.
	Glycerol 50 percent	Not available.
<b>Odour</b>	Mineral Oil	Colourless.
	Urea	White.
	: OFFGEL Ampholyte 3-10	Odourless.
	OFFGEL Ampholyte 4-7	Odourless.
	Dithiotreitol	Not available.
	Thiourea	Not available.
<b>Odour threshold</b>	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Urea	Not available.
	: OFFGEL Ampholyte 3-10	Odourless. / Ammoniacal.
	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	Not available.
<b>Boiling point</b>	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Urea	Not available.
	: OFFGEL Ampholyte 3-10	Not available.
	OFFGEL Ampholyte 4-7	Not available.
<b>Melting point</b>	Dithiotreitol	125 to 130°C (257 to 266°F)
	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	179 to 210°C (354.2 to 410°F)
	Urea	Decomposition temperature: >135°C (>275°F)
	: OFFGEL Ampholyte 3-10	Not available.
<b>Vapour pressure</b>	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	Not available.
	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	0.011 kPa (0.08 mm Hg) [room temperature]
	Urea	0 kPa (0 mm Hg) [room temperature]
<b>Relative density</b>	: OFFGEL Ampholyte 3-10	Not available.
	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	Not available.
	Thiourea	1.41
	Glycerol 50 percent	Not available.
	Mineral Oil	0.875 to 0.905
<b>Flash point</b>	Urea	1.32
	: OFFGEL Ampholyte 3-10	Not available.
	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	[Product does not sustain combustion.]
	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Closed cup: 135°C (275°F)
	Urea	Not available.

## 9 . Physical and chemical properties

<b>Flammable limits</b>	: OFFGEL Ampholyte 3-10	Not available.
	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	Not available.
	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Urea	Not available.
<b>Vapour density</b>	: OFFGEL Ampholyte 3-10	Not available.
	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	Not available.
	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Urea	Not available.
<b>pH</b>	: OFFGEL Ampholyte 3-10	Not available.
	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	4.3 [Conc. (% w/w): 5%]
	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Urea	7.2 [Conc. (% w/w): 10%]
<b>Viscosity</b>	: OFFGEL Ampholyte 3-10	Not available.
	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	Not available.
	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Kinematic (40°C (104°F)): >0.013 cm <sup>2</sup> /s (>1.3 cSt)
	Urea	Dynamic (room temperature): 1.9 mPa·s (1.9 cP)
<b>Auto-ignition temperature</b>	: OFFGEL Ampholyte 3-10	Not available.
	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	Not available.
	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	260 to 371.11°C (500 to 700°F)
	Urea	Not available.
<b>Evaporation rate</b>	: OFFGEL Ampholyte 3-10	Not available.
	OFFGEL Ampholyte 4-7	Not available.
	Dithiotreitol	Not available.
	Thiourea	Not available.
	Glycerol 50 percent	Not available.
	Mineral Oil	Not available.
	Urea	Not available.
<b>Solubility</b>	: OFFGEL Ampholyte 3-10	Easily soluble in the following materials: cold water and hot water.
	OFFGEL Ampholyte 4-7	Easily soluble in the following materials: cold water and hot water.
	Dithiotreitol	Soluble in the following materials: cold water and hot water.
	Thiourea	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.
	Urea	Easily soluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

<b>Chemical stability</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil Urea	The product is stable. The product is stable.
<b>Possibility of hazardous reactions</b>	: OFFGEL Ampholyte 3-10  OFFGEL Ampholyte 4-7  Dithiotreitol  Thiourea  Glycerol 50 percent  Mineral Oil  Urea	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil Urea	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). 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. Prevent dust accumulation.
<b>Materials to avoid</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil Urea	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Reactive or incompatible with the following materials: oxidizing materials
<b>Hazardous decomposition products</b>	: OFFGEL Ampholyte 3-10  OFFGEL Ampholyte 4-7  Dithiotreitol  Thiourea  Glycerol 50 percent  Mineral Oil  Urea	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. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 10 . Stability and reactivity

be produced.

## 11 . Toxicological information

### Potential acute health effects

<b>Inhalation</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea  Glycerol 50 percent Mineral Oil Urea	No known significant effects or critical hazards. No known significant effects or critical hazards. Irritating to respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. 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 nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Ingestion</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol  Thiourea Glycerol 50 percent Mineral Oil Urea	No known significant effects or critical hazards. No known significant effects or critical hazards. Harmful if swallowed. Irritating to mouth, throat and stomach. Harmful if swallowed. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil  Urea	No known significant effects or critical hazards. No known significant effects or critical hazards. Irritating to skin. 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>Eye contact</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil Urea	No known significant effects or critical hazards. No known significant effects or critical hazards. Irritating to eyes. 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.

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>Thiourea</b> Thiourea	LD50 Oral	Rat	125 mg/kg	-
<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>Urea</b> Urea	LD50 Oral	Rat	8471 mg/kg	-

**Conclusion/Summary** : Not available.

### Potential chronic health effects

#### Chronic toxicity

**Conclusion/Summary** : Not available.

## 11 . Toxicological information

### Irritation/Corrosion

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

**Conclusion/Summary** : Not available.

### Sensitiser

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

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

Product name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
<b>Thiourea</b> Thiourea	Carc. Cat. 3; R40	-	Repr. Cat. 3; R63	-

<b>Chronic effects</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil  Urea	No known significant effects or critical hazards. No known significant effects or critical hazards. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
<b>Carcinogenicity</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea  Glycerol 50 percent Mineral Oil Urea	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. May cause cancer, based on animal data. Limited evidence of a carcinogenic effect. Risk of cancer depends on duration and level of exposure. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil Urea	No known significant effects or critical hazards. No known significant effects or critical hazards.

## 11 . Toxicological information

<b>Teratogenicity</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil Urea	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. May cause birth defects, based on animal data. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Developmental effects</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil Urea	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Glycerol 50 percent Mineral Oil Urea	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b><u>Over-exposure signs/symptoms</u></b>		
<b>Inhalation</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol  Thiourea  Glycerol 50 percent Mineral Oil Urea	No specific data. No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations No specific data. No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing
<b>Ingestion</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea  Glycerol 50 percent Mineral Oil Urea	No specific data. No specific data. No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations No specific data. No specific data. No specific data.
<b>Skin</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol  Thiourea  Glycerol 50 percent Mineral Oil  Urea	No specific data. No specific data. Adverse symptoms may include the following: irritation redness Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations No specific data. Adverse symptoms may include the following: irritation dryness cracking No specific data.

## 11 . Toxicological information

<b>Eyes</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol  Thiourea Glycerol 50 percent Mineral Oil Urea	No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation redness
<b>Other adverse symptoms</b>	: OFFGEL Ampholyte 3-10 OFFGEL Ampholyte 4-7 Dithiotreitol Thiourea Agilent Part Number 5188-6436  Glycerol 50% Mineral Oil Urea	Not available. Not available. Not available. Adverse symptoms include the following: Causes depression of bone marrow and occasionally focal degeneration in the brain. Not available. Not available. Not available.
<b>Target organs</b>	: OFFGEL Ampholyte 3-10  OFFGEL Ampholyte 4-7  Dithiotreitol  Thiourea   Glycerol 50 percent  Mineral Oil  Urea	May cause damage to the following organs: eyes, eye, lens or cornea. May cause damage to the following organs: eyes, eye, lens or cornea. May cause damage to the following organs: upper respiratory tract, skin, eyes. Contains material which may cause damage to the following organs: blood, liver, upper respiratory tract, skin, eyes, bone marrow, thyroid. Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, skin, eye, lens or cornea. Does not cause damage to the following organs: blood, lungs, upper respiratory tract, skin, eyes. May cause damage to the following organs: upper respiratory tract, skin, eyes.

## 12 . Ecological information

**Ecotoxicity** : This material is very toxic to aquatic life.

### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
<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
<b>Thiourea</b> Thiourea	Acute EC50 4800 µg/l Fresh water Acute LC50 9000 to 18000 µg/l Fresh water	Algae - Scenedesmus abundans Daphnia - Daphnia magna	96 hours 48 hours
<b>Urea</b> Urea	Acute EC50 3910000 µg/l Fresh water Acute LC50 1000 mg/l Marine water Acute LC50 22.5 ppt Fresh water Chronic NOEC 2 g/L Fresh water	Daphnia - Daphnia magna - Neonate Crustaceans - Chaetogammarus marinus - Young Fish - Oreochromis mossambicus - Young Fish - Heteropneustes fossilis	48 hours 48 hours 96 hours 30 days

### Other ecological information

## 12 . Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
<b>Thiourea</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

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>Thiourea</b> Thiourea	-1.08	2	low
<b>Glycerol 50 percent</b> Glycerol	-1.76	-	low
<b>Mineral Oil</b> White mineral oil (petroleum)	>6	-	high
<b>Urea</b> Urea	<-1.73	-	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 spill material and runoff and contact with soil, waterways, drains and sewers.

## 14 . Transport information

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

**Remarks**  
Excepted Quantity

Regulation	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>ADG</b>	UN3316	CHEMICAL KIT	9	II		<b>Hazchem code</b> 2Z <b>Special provisions</b> 251, 340

## 14 . Transport information

<b>IMDG</b>	UN3316	CHEMICAL KIT. Marine pollutant (Thiourea)	9	II	 	<p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p><b>Emergency schedules (EmS)</b> F-A, _S-P_</p> <p><b>Special provisions</b> 251, 340</p>
<b>IATA</b>	UN3316	Chemical kit	9	II		<p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p> <p><b>Passenger and Cargo Aircraft</b> Quantity limitation: 10 kg Packaging instructions: 960</p> <p><b>Cargo Aircraft Only</b> Quantity limitation: 10 kg Packaging instructions: 960</p> <p><b>Limited Quantities - Passenger Aircraft</b> Quantity limitation: 1 kg Packaging instructions: Y960</p> <p><b>Special provisions</b> A44, A163</p> <p><b>Remarks</b> Excepted Quantity</p>

PG\* : Packing group

## 15 . Regulatory information

### [Standard Uniform Schedule of Medicine and Poisons](#)

5

### [Control of Scheduled Carcinogenic Substances](#)

<a href="#">Ingredient name</a>	<a href="#">Schedule</a>
No listed substance	

Australia inventory (AICS) : Not determined.

## 16 . Other information

**Remarks** :

**Date of issue** : 15/08/2014

**Date of previous issue** : 28/07/2014.

Indicates information that has changed from previously issued version.

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