

SAFETY DATA SHEET



Glycerol Calibration Standards Kit, Part Number G3440-85028

Section 1. Identification

Product identifier : Glycerol Calibration Standards Kit, Part Number G3440-85028
Part no. (chemical kit) : G3440-85028
Part no. : Glycerol Calibration Standard 1 G3440-85028-1
 Glycerol Calibration Standard 2 G3440-85022
 Glycerol Calibration Standard 3 G3440-85023
 Glycerol Calibration Standard 4 G3440-85024
 Glycerol Calibration Standard 5 G3440-85025

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

Material uses : Reagents and Standards for Analytical Chemistry Laboratory Use
 9 x 1 mL
 Glycerol Calibration Standard 1 5 x 1 ml
 Glycerol Calibration Standard 2 1 ml
 Glycerol Calibration Standard 3 1 ml
 Glycerol Calibration Standard 4 1 ml
 Glycerol Calibration Standard 5 1 ml

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

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

Section 2. Hazard(s) identification

Classification of the substance or mixture

Glycerol Calibration

Standard 1

H225 FLAMMABLE LIQUIDS - Category 2
 H302 ACUTE TOXICITY (oral) - Category 4
 H312 ACUTE TOXICITY (dermal) - Category 4
 H332 ACUTE TOXICITY (inhalation) - Category 4

Glycerol Calibration

Standard 2

H225 FLAMMABLE LIQUIDS - Category 2
 H302 ACUTE TOXICITY (oral) - Category 4
 H312 ACUTE TOXICITY (dermal) - Category 4
 H332 ACUTE TOXICITY (inhalation) - Category 4

Glycerol Calibration

Standard 3

H225 FLAMMABLE LIQUIDS - Category 2
 H302 ACUTE TOXICITY (oral) - Category 4
 H312 ACUTE TOXICITY (dermal) - Category 4
 H332 ACUTE TOXICITY (inhalation) - Category 4

Glycerol Calibration

Standard 4

H225 FLAMMABLE LIQUIDS - Category 2
 H302 ACUTE TOXICITY (oral) - Category 4

Section 2. Hazard(s) identification











H312 ACUTE TOXICITY (dermal) - Category 4
 H332 ACUTE TOXICITY (inhalation) - Category 4

Glycerol Calibration Standard 5

H225 FLAMMABLE LIQUIDS - Category 2
 H302 ACUTE TOXICITY (oral) - Category 4
 H312 ACUTE TOXICITY (dermal) - Category 4
 H332 ACUTE TOXICITY (inhalation) - Category 4

GHS label elements

Hazard pictograms

: <input checked="" type="checkbox"/> Glycerol Calibration Standard 1	 
Glycerol Calibration Standard 2	 
Glycerol Calibration Standard 3	 
Glycerol Calibration Standard 4	 
Glycerol Calibration Standard 5	 

Signal word

: <input checked="" type="checkbox"/> Glycerol Calibration Standard 1	DANGER
Glycerol Calibration Standard 2	DANGER
Glycerol Calibration Standard 3	DANGER
Glycerol Calibration Standard 4	DANGER
Glycerol Calibration Standard 5	DANGER

Hazard statements

: <input checked="" type="checkbox"/> Glycerol Calibration Standard 1	H225 - Highly flammable liquid and vapour.
Glycerol Calibration Standard 2	H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H225 - Highly flammable liquid and vapour.
Glycerol Calibration Standard 3	H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H225 - Highly flammable liquid and vapour.
Glycerol Calibration Standard 4	H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H225 - Highly flammable liquid and vapour.
Glycerol Calibration Standard 5	H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.

Section 2. Hazard(s) identification

Glycerol Calibration
Standard 5

H225 - Highly flammable liquid and vapour.

H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.

Precautionary statements

Prevention

: Glycerol Calibration
Standard 1

P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P233 - Keep container tightly closed.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing vapour.
P270 - Do not eat, drink or smoke when using this product.

Glycerol Calibration
Standard 2

P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P233 - Keep container tightly closed.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing vapour.
P270 - Do not eat, drink or smoke when using this product.

Glycerol Calibration
Standard 3

P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P233 - Keep container tightly closed.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing vapour.
P270 - Do not eat, drink or smoke when using this product.

Glycerol Calibration
Standard 4

P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P233 - Keep container tightly closed.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing vapour.
P270 - Do not eat, drink or smoke when using this

Section 2. Hazard(s) identification

	Glycerol Calibration Standard 5	<p>product.</p> <p>P264 - Wash hands thoroughly after handling.</p> <p>P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.</p> <p>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.</p> <p>P242 - Use only non-sparking tools.</p> <p>P243 - Take precautionary measures against static discharge.</p> <p>P233 - Keep container tightly closed.</p> <p>P271 - Use only outdoors or in a well-ventilated area.</p> <p>P261 - Avoid breathing vapour.</p> <p>P270 - Do not eat, drink or smoke when using this product.</p> <p>P264 - Wash hands thoroughly after handling.</p>
Response	:  Glycerol Calibration Standard 1	<p>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.</p> <p>P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.</p> <p>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P302 + P352 + P312 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.</p>
	Glycerol Calibration Standard 2	<p>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.</p> <p>P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.</p> <p>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P302 + P352 + P312 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.</p>
	Glycerol Calibration Standard 3	<p>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.</p> <p>P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.</p> <p>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P302 + P352 + P312 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.</p>
	Glycerol Calibration Standard 4	<p>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.</p> <p>P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.</p>

Section 2. Hazard(s) identification

	Glycerol Calibration Standard 5	P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P302 + P352 + P312 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. 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. P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P302 + P352 + P312 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.
Storage	: <input checked="" type="checkbox"/> Glycerol Calibration Standard 1	P403 - Store in a well-ventilated place. P235 - Keep cool.
	Glycerol Calibration Standard 2	P403 - Store in a well-ventilated place.
	Glycerol Calibration Standard 3	P235 - Keep cool. P403 - Store in a well-ventilated place.
	Glycerol Calibration Standard 4	P235 - Keep cool. P403 - Store in a well-ventilated place.
	Glycerol Calibration Standard 5	P235 - Keep cool. P403 - Store in a well-ventilated place.
Disposal	: <input checked="" type="checkbox"/> Glycerol Calibration Standard 1	P235 - Keep cool. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Glycerol Calibration Standard 2	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Glycerol Calibration Standard 3	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Glycerol Calibration Standard 4	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Glycerol Calibration Standard 5	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements		
Additional warning phrases	: <input checked="" type="checkbox"/> Glycerol Calibration Standard 1	Not applicable.
	Glycerol Calibration Standard 2	Not applicable.
	Glycerol Calibration Standard 3	Not applicable.
	Glycerol Calibration Standard 4	Not applicable.
	Glycerol Calibration Standard 5	Not applicable.

Section 2. Hazard(s) identification

Other hazards which do not result in classification	: Glycerol Calibration Standard 1	None known.
	Glycerol Calibration Standard 2	None known.
	Glycerol Calibration Standard 3	None known.
	Glycerol Calibration Standard 4	None known.
	Glycerol Calibration Standard 5	None known.

Section 3. Composition and ingredient information

Substance/mixture	: Glycerol Calibration Standard 1	Mixture
	Glycerol Calibration Standard 2	Mixture
	Glycerol Calibration Standard 3	Mixture
	Glycerol Calibration Standard 4	Mixture
	Glycerol Calibration Standard 5	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Glycerol Calibration Standard 1 Pyridine	≥90	110-86-1
Glycerol Calibration Standard 2 Pyridine	≥90	110-86-1
Glycerol Calibration Standard 3 Pyridine	≥90	110-86-1
Glycerol Calibration Standard 4 Pyridine	≥90	110-86-1
Glycerol Calibration Standard 5 Pyridine	≥90	110-86-1

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.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Glycerol Calibration Standard 1	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
	Glycerol Calibration Standard 2	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 Calibration Standard 3	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue

Section 4. First aid measures

	Glycerol Calibration Standard 4	to rinse for at least 10 minutes. Get medical attention if irritation occurs. 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 Calibration Standard 5	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.
Inhalation	: Glycerol Calibration Standard 1	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 adverse health effects persist or are severe. 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. 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 Calibration Standard 2	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 adverse health effects persist or are severe. 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. 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 Calibration Standard 3	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 adverse health effects persist or are severe. 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. In case of inhalation of

Section 4. First aid measures

Glycerol Calibration
Standard 4

decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. 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 adverse health effects persist or are severe. 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. 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 Calibration
Standard 5

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 adverse health effects persist or are severe. 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. 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.

Skin contact

: Glycerol Calibration
Standard 1

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Glycerol Calibration
Standard 2

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Glycerol Calibration
Standard 3

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

	Glycerol Calibration Standard 4	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Glycerol Calibration Standard 5	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Glycerol Calibration Standard 1	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.
	Glycerol Calibration Standard 2	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.
	Glycerol Calibration Standard 3	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,

Section 4. First aid measures

Glycerol Calibration
Standard 4

belt or waistband.

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.

Glycerol Calibration
Standard 5

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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: Glycerol Calibration
Standard 1
Glycerol Calibration
Standard 2
Glycerol Calibration
Standard 3
Glycerol Calibration
Standard 4
Glycerol Calibration
Standard 5

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.

Inhalation

: Glycerol Calibration
Standard 1
Glycerol Calibration
Standard 2
Glycerol Calibration
Standard 3
Glycerol Calibration
Standard 4
Glycerol Calibration
Standard 5

Harmful if inhaled.

Harmful if inhaled.

Harmful if inhaled.

Harmful if inhaled.

Harmful if inhaled.

Section 4. First aid measures

Skin contact	:	Glycerol Calibration Standard 1	Harmful in contact with skin.
		Glycerol Calibration Standard 2	Harmful in contact with skin.
		Glycerol Calibration Standard 3	Harmful in contact with skin.
		Glycerol Calibration Standard 4	Harmful in contact with skin.
		Glycerol Calibration Standard 5	Harmful in contact with skin.
Ingestion	:	Glycerol Calibration Standard 1	Harmful if swallowed.
		Glycerol Calibration Standard 2	Harmful if swallowed.
		Glycerol Calibration Standard 3	Harmful if swallowed.
		Glycerol Calibration Standard 4	Harmful if swallowed.
		Glycerol Calibration Standard 5	Harmful if swallowed.
<u>Over-exposure signs/symptoms</u>			
Eye contact	:	Glycerol Calibration Standard 1	No specific data.
		Glycerol Calibration Standard 2	No specific data.
		Glycerol Calibration Standard 3	No specific data.
		Glycerol Calibration Standard 4	No specific data.
		Glycerol Calibration Standard 5	No specific data.
Inhalation	:	Glycerol Calibration Standard 1	No specific data.
		Glycerol Calibration Standard 2	No specific data.
		Glycerol Calibration Standard 3	No specific data.
		Glycerol Calibration Standard 4	No specific data.
		Glycerol Calibration Standard 5	No specific data.
Skin contact	:	Glycerol Calibration Standard 1	No specific data.
		Glycerol Calibration Standard 2	No specific data.
		Glycerol Calibration Standard 3	No specific data.
		Glycerol Calibration Standard 4	No specific data.
		Glycerol Calibration Standard 5	No specific data.
Ingestion	:	Glycerol Calibration Standard 1	No specific data.
		Glycerol Calibration Standard 2	No specific data.
		Glycerol Calibration Standard 3	No specific data.
		Glycerol Calibration Standard 4	No specific data.
		Glycerol Calibration Standard 5	No specific data.

Section 4. First aid measures

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

Notes to physician	: Glycerol Calibration Standard 1	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 Calibration Standard 2	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Glycerol Calibration Standard 3	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Glycerol Calibration Standard 4	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 Calibration Standard 5	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.
Specific treatments	: Glycerol Calibration Standard 1	No specific treatment.
	Glycerol Calibration Standard 2	No specific treatment.
	Glycerol Calibration Standard 3	No specific treatment.
	Glycerol Calibration Standard 4	No specific treatment.
	Glycerol Calibration Standard 5	No specific treatment.
Protection of first-aiders	: Glycerol Calibration Standard 1	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	Glycerol Calibration Standard 2	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	Glycerol Calibration Standard 3	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	Glycerol Calibration Standard 4	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 4. First aid measures

Glycerol Calibration
Standard 5

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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media

: Glycerol Calibration
Standard 1
Glycerol Calibration
Standard 2
Glycerol Calibration
Standard 3
Glycerol Calibration
Standard 4
Glycerol Calibration
Standard 5

Use dry chemical, CO₂, water spray (fog) or foam.
Use dry chemical, CO₂, water spray (fog) or foam.
Use dry chemical, CO₂, water spray (fog) or foam.
Use dry chemical, CO₂, water spray (fog) or foam.
Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media

: Glycerol Calibration
Standard 1
Glycerol Calibration
Standard 2
Glycerol Calibration
Standard 3
Glycerol Calibration
Standard 4
Glycerol Calibration
Standard 5

Do not use water jet.
Do not use water jet.
Do not use water jet.
Do not use water jet.
Do not use water jet.

Specific hazards arising from the chemical

: Glycerol Calibration
Standard 1

Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Glycerol Calibration
Standard 2

Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Glycerol Calibration
Standard 3

Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Glycerol Calibration
Standard 4

Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the

Section 5. Firefighting measures

	Glycerol Calibration Standard 5	<p>container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.</p>
Hazardous thermal decomposition products	: Glycerol Calibration Standard 1	<p>Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides</p>
	Glycerol Calibration Standard 2	<p>Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides</p>
	Glycerol Calibration Standard 3	<p>Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides</p>
	Glycerol Calibration Standard 4	<p>Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides</p>
	Glycerol Calibration Standard 5	<p>Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides</p>
Special protective actions for fire-fighters	: Glycerol Calibration Standard 1	<p>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.</p>
	Glycerol Calibration Standard 2	<p>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.</p>
	Glycerol Calibration Standard 3	<p>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.</p>
	Glycerol Calibration Standard 4	<p>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.</p>

Section 5. Firefighting measures

	Glycerol Calibration Standard 5	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.
Special protective equipment for fire-fighters	: Glycerol Calibration Standard 1	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Glycerol Calibration Standard 2	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Glycerol Calibration Standard 3	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Glycerol Calibration Standard 4	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Glycerol Calibration Standard 5	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazchem code	: Glycerol Calibration Standard 1	•2WE
	Glycerol Calibration Standard 2	•2WE
	Glycerol Calibration Standard 3	•2WE
	Glycerol Calibration Standard 4	•2WE
	Glycerol Calibration Standard 5	•2WE

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Glycerol Calibration Standard 1	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Glycerol Calibration Standard 2	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Glycerol Calibration Standard 3	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected

Section 6. Accidental release measures

	Glycerol Calibration Standard 4	<p>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 vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p> <p>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 vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
	Glycerol Calibration Standard 5	<p>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 vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
For emergency responders	Glycerol Calibration Standard 1	<p>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".</p>
	Glycerol Calibration Standard 2	<p>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".</p>
	Glycerol Calibration Standard 3	<p>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".</p>
	Glycerol Calibration Standard 4	<p>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".</p>
	Glycerol Calibration Standard 5	<p>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".</p>
Environmental precautions	Glycerol Calibration Standard 1	<p>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).</p>
	Glycerol Calibration Standard 2	<p>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).</p>
	Glycerol Calibration Standard 3	<p>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).</p>

Section 6. Accidental release measures

Glycerol Calibration
Standard 4

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 Calibration
Standard 5

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).

Methods and material for containment and cleaning up

Methods for cleaning up

: Glycerol Calibration
Standard 1

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.

Glycerol Calibration
Standard 2

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.

Glycerol Calibration
Standard 3

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.

Glycerol Calibration
Standard 4

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.

Glycerol Calibration
Standard 5

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Glycerol Calibration
Standard 1

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material

Section 7. Handling and storage

Glycerol Calibration Standard 2

handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Glycerol Calibration Standard 3

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Glycerol Calibration Standard 4

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Glycerol Calibration Standard 5

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-

Section 7. Handling and storage

Advice on general occupational hygiene

: Glycerol Calibration Standard 1

proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain 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 Calibration Standard 2

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Glycerol Calibration Standard 3

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Glycerol Calibration Standard 5

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.

Conditions for safe storage, including any incompatibilities

:  Glycerol Calibration Standard 1

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. See Section 10 for incompatible materials before handling or use.

Glycerol Calibration Standard 2

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). 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.

Section 7. Handling and storage

Glycerol Calibration
Standard 3

Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). 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. See Section 10 for incompatible materials before handling or use.

Glycerol Calibration
Standard 4

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). 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. See Section 10 for incompatible materials before handling or use.

Glycerol Calibration
Standard 5

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
Glycerol Calibration Standard 1 Pyridine	Safe Work Australia (Australia, 1/2014). TWA: 16 mg/m ³ 8 hours. TWA: 5 ppm 8 hours.
Glycerol Calibration Standard 2 Pyridine	Safe Work Australia (Australia, 1/2014). TWA: 16 mg/m ³ 8 hours. TWA: 5 ppm 8 hours.
Glycerol Calibration Standard 3 Pyridine	Safe Work Australia (Australia, 1/2014). TWA: 16 mg/m ³ 8 hours. TWA: 5 ppm 8 hours.
Glycerol Calibration Standard 4 Pyridine	Safe Work Australia (Australia, 1/2014). TWA: 16 mg/m ³ 8 hours. TWA: 5 ppm 8 hours.
Glycerol Calibration Standard 5 Pyridine	Safe Work Australia (Australia, 1/2014). TWA: 16 mg/m ³ 8 hours. TWA: 5 ppm 8 hours.

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. 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.

Section 8. Exposure controls and personal protection

- 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Glycerol Calibration Standard 1 Liquid.
Glycerol Calibration Standard 2 Liquid.
Glycerol Calibration Standard 3 Liquid.
Glycerol Calibration Standard 4 Liquid.
Glycerol Calibration Standard 5 Liquid.
- Colour** : Glycerol Calibration Standard 1 Colourless.
Glycerol Calibration Standard 2 Colourless.
Glycerol Calibration Standard 3 Colourless.
Glycerol Calibration Standard 4 Colourless.
Glycerol Calibration Standard 5 Colourless.
- Odour** : Glycerol Calibration Standard 1 Unpleasant.
Glycerol Calibration Standard 2 Unpleasant.
Glycerol Calibration Standard 3 Unpleasant.
Glycerol Calibration Standard 4 Unpleasant.
Glycerol Calibration Standard 5 Unpleasant.
- Odour threshold** : Glycerol Calibration Standard 1 Not available.
Glycerol Calibration Standard 2 Not available.
Glycerol Calibration Standard 3 Not available.
Glycerol Calibration Standard 4 Not available.
Glycerol Calibration Standard 5 Not available.
- pH** :

Section 9. Physical and chemical properties

	Glycerol Calibration Standard 1	Not available.
	Glycerol Calibration Standard 2	Not available.
	Glycerol Calibration Standard 3	Not available.
	Glycerol Calibration Standard 4	Not available.
	Glycerol Calibration Standard 5	Not available.
Melting point	: Glycerol Calibration Standard 1	-42°C (-43.6°F)
	Glycerol Calibration Standard 2	-42°C (-43.6°F)
	Glycerol Calibration Standard 3	-42°C (-43.6°F)
	Glycerol Calibration Standard 4	-42°C (-43.6°F)
	Glycerol Calibration Standard 5	-42°C (-43.6°F)
Boiling point	: Glycerol Calibration Standard 1	115°C (239°F)
	Glycerol Calibration Standard 2	115°C (239°F)
	Glycerol Calibration Standard 3	115°C (239°F)
	Glycerol Calibration Standard 4	115°C (239°F)
	Glycerol Calibration Standard 5	115°C (239°F)
Flash point	: Glycerol Calibration Standard 1	Closed cup: 19.85°C (67.7°F)
	Glycerol Calibration Standard 2	Closed cup: 18.667°C (65.6°F)
	Glycerol Calibration Standard 3	Closed cup: 18.67°C (65.6°F)
	Glycerol Calibration Standard 4	Closed cup: 18.67°C (65.6°F)
	Glycerol Calibration Standard 5	Closed cup: 18.67°C (65.6°F)
Evaporation rate	: Glycerol Calibration Standard 1	1.37 (butyl acetate = 1)
	Glycerol Calibration Standard 2	Not available.
	Glycerol Calibration Standard 3	Not available.
	Glycerol Calibration Standard 4	Not available.
	Glycerol Calibration Standard 5	Not available.
Flammability (solid, gas)	: Glycerol Calibration Standard 1	Not applicable.
	Glycerol Calibration Standard 2	Not applicable.
	Glycerol Calibration Standard 3	Not applicable.
	Glycerol Calibration Standard 4	Not applicable.
	Glycerol Calibration Standard 5	Not applicable.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Glycerol Calibration Standard 1	Lower: 1.8%
		Upper: 12.5%
	Glycerol Calibration Standard 2	Lower: 1.8%
		Upper: 12.4%
	Glycerol Calibration Standard 3	Lower: 1.8%
		Upper: 12.4%
	Glycerol Calibration Standard 4	Lower: 1.8%
		Upper: 12.4%
	Glycerol Calibration Standard 5	Lower: 1.8%
		Upper: 12.4%
Vapour pressure	: Glycerol Calibration Standard 1	Not available.
	Glycerol Calibration Standard 2	2.7 kPa (20 mm Hg) [room temperature]
	Glycerol Calibration Standard 3	2.7 kPa (20 mm Hg) [room temperature]
	Glycerol Calibration Standard 4	2.7 kPa (20 mm Hg) [room temperature]
	Glycerol Calibration Standard 5	2.7 kPa (20 mm Hg) [room temperature]
Vapour density	: Glycerol Calibration Standard 1	2.73 [Air = 1]
	Glycerol Calibration Standard 2	2.72 [Air = 1]
	Glycerol Calibration Standard 3	2.71 [Air = 1]
	Glycerol Calibration Standard 4	2.72 [Air = 1]
	Glycerol Calibration Standard 5	2.72 [Air = 1]
Relative density	: Glycerol Calibration Standard 1	Not available.
	Glycerol Calibration Standard 2	0.978
	Glycerol Calibration Standard 3	0.978
	Glycerol Calibration Standard 4	0.978
	Glycerol Calibration Standard 5	0.978
Solubility	: Glycerol Calibration Standard 1	Soluble in the following materials: cold water and hot water.
	Glycerol Calibration Standard 2	Soluble in the following materials: cold water and hot water.
	Glycerol Calibration Standard 3	Soluble in the following materials: cold water and hot water.
	Glycerol Calibration Standard 4	Soluble in the following materials: cold water and hot water.
	Glycerol Calibration Standard 5	Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Glycerol Calibration Standard 1	Not available.
	Glycerol Calibration Standard 2	Not available.
	Glycerol Calibration Standard 3	Not available.
	Glycerol Calibration	Not available.

Section 9. Physical and chemical properties

	Standard 4	Glycerol Calibration	Not available.
	Standard 5	Glycerol Calibration	Not available.
Auto-ignition temperature	Standard 1	Glycerol Calibration	250°C (482°F)
	Standard 2	Glycerol Calibration	250°C (482°F)
	Standard 3	Glycerol Calibration	250°C (482°F)
	Standard 4	Glycerol Calibration	250°C (482°F)
	Standard 5	Glycerol Calibration	Not available.
Decomposition temperature	Standard 1	Glycerol Calibration	Not available.
	Standard 2	Glycerol Calibration	Not available.
	Standard 3	Glycerol Calibration	Not available.
	Standard 4	Glycerol Calibration	Not available.
	Standard 5	Glycerol Calibration	Not available.
Viscosity	Standard 1	Glycerol Calibration	Not available.
	Standard 2	Glycerol Calibration	Not available.
	Standard 3	Glycerol Calibration	Not available.
	Standard 4	Glycerol Calibration	Not available.
	Standard 5	Glycerol Calibration	Not available.

Section 10. Stability and reactivity

Reactivity	Standard 1	Glycerol Calibration	No specific test data related to reactivity available for this product or its ingredients.
	Standard 2	Glycerol Calibration	No specific test data related to reactivity available for this product or its ingredients.
	Standard 3	Glycerol Calibration	No specific test data related to reactivity available for this product or its ingredients.
	Standard 4	Glycerol Calibration	No specific test data related to reactivity available for this product or its ingredients.
	Standard 5	Glycerol Calibration	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	Standard 1	Glycerol Calibration	The product is stable.
	Standard 2	Glycerol Calibration	The product is stable.
	Standard 3	Glycerol Calibration	The product is stable.
	Standard 4	Glycerol Calibration	The product is stable.
	Standard 5	Glycerol Calibration	The product is stable.

Section 10. Stability and reactivity

Possibility of hazardous reactions	: Glycerol Calibration Standard 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	Glycerol Calibration Standard 2	Under normal conditions of storage and use, hazardous reactions will not occur.
	Glycerol Calibration Standard 3	Under normal conditions of storage and use, hazardous reactions will not occur.
	Glycerol Calibration Standard 4	Under normal conditions of storage and use, hazardous reactions will not occur.
	Glycerol Calibration Standard 5	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Glycerol Calibration Standard 1	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
	Glycerol Calibration Standard 2	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
	Glycerol Calibration Standard 3	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
	Glycerol Calibration Standard 4	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
	Glycerol Calibration Standard 5	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
Incompatible materials	: Glycerol Calibration Standard 1	Reactive or incompatible with the following materials: oxidizing materials
	Glycerol Calibration Standard 2	Reactive or incompatible with the following materials: oxidizing materials
	Glycerol Calibration Standard 3	Reactive or incompatible with the following materials: oxidizing materials
	Glycerol Calibration Standard 4	Reactive or incompatible with the following materials: oxidizing materials
	Glycerol Calibration Standard 5	Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Glycerol Calibration Standard 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Glycerol Calibration Standard 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Glycerol Calibration Standard 3	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 10. Stability and reactivity

Glycerol Calibration
Standard 4Under normal conditions of storage and use,
hazardous decomposition products should not be
produced.Glycerol Calibration
Standard 5Under normal conditions of storage and use,
hazardous decomposition products should not be
produced.

Section 11. Toxicological information

[Information on toxicological effects](#)

[Acute toxicity](#)

Product/ingredient name	Result	Species	Dose	Exposure
Glycerol Calibration Standard 1 Pyridine	LC50 Inhalation Vapour	Rat	9010 ppm	1 hours
Glycerol Calibration Standard 2 Pyridine	LC50 Inhalation Vapour	Rat	9010 ppm	1 hours
Glycerol Calibration Standard 3 Pyridine	LC50 Inhalation Vapour	Rat	9010 ppm	1 hours
Glycerol Calibration Standard 4 Pyridine	LC50 Inhalation Vapour	Rat	9010 ppm	1 hours
Glycerol Calibration Standard 5 Pyridine	LC50 Inhalation Vapour	Rat	9010 ppm	1 hours

[Irritation/Corrosion](#)

Product/ingredient name	Result	Species	Score	Exposure	Observation
Glycerol Calibration Standard 1 Pyridine	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Glycerol Calibration Standard 2 Pyridine	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Glycerol Calibration Standard 3 Pyridine	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Glycerol Calibration Standard 4 Pyridine	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Glycerol Calibration Standard 5 Pyridine	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

[Sensitisation](#)

Not available.

Section 11. Toxicological information

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure	: Glycerol Calibration Standard 1	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Glycerol Calibration Standard 2	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Glycerol Calibration Standard 3	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Glycerol Calibration Standard 4	Routes of entry anticipated: Oral, Dermal, Inhalation.
	Glycerol Calibration Standard 5	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact	: Glycerol Calibration Standard 1	No known significant effects or critical hazards.
	Glycerol Calibration Standard 2	No known significant effects or critical hazards.
	Glycerol Calibration Standard 3	No known significant effects or critical hazards.
	Glycerol Calibration Standard 4	No known significant effects or critical hazards.
	Glycerol Calibration Standard 5	No known significant effects or critical hazards.
Inhalation	: Glycerol Calibration Standard 1	Harmful if inhaled.
	Glycerol Calibration Standard 2	Harmful if inhaled.
	Glycerol Calibration Standard 3	Harmful if inhaled.
	Glycerol Calibration Standard 4	Harmful if inhaled.
	Glycerol Calibration Standard 5	Harmful if inhaled.
Skin contact	: Glycerol Calibration Standard 1	Harmful in contact with skin.
	Glycerol Calibration Standard 2	Harmful in contact with skin.
	Glycerol Calibration Standard 3	Harmful in contact with skin.
	Glycerol Calibration Standard 4	Harmful in contact with skin.
	Glycerol Calibration Standard 5	Harmful in contact with skin.

Section 11. Toxicological information

Ingestion	:	Glycerol Calibration Standard 1	Harmful if swallowed.
		Glycerol Calibration Standard 2	Harmful if swallowed.
		Glycerol Calibration Standard 3	Harmful if swallowed.
		Glycerol Calibration Standard 4	Harmful if swallowed.
		Glycerol Calibration Standard 5	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Glycerol Calibration Standard 1	No specific data.
		Glycerol Calibration Standard 2	No specific data.
		Glycerol Calibration Standard 3	No specific data.
		Glycerol Calibration Standard 4	No specific data.
		Glycerol Calibration Standard 5	No specific data.
Inhalation	:	Glycerol Calibration Standard 1	No specific data.
		Glycerol Calibration Standard 2	No specific data.
		Glycerol Calibration Standard 3	No specific data.
		Glycerol Calibration Standard 4	No specific data.
		Glycerol Calibration Standard 5	No specific data.
Skin contact	:	Glycerol Calibration Standard 1	No specific data.
		Glycerol Calibration Standard 2	No specific data.
		Glycerol Calibration Standard 3	No specific data.
		Glycerol Calibration Standard 4	No specific data.
		Glycerol Calibration Standard 5	No specific data.
Ingestion	:	Glycerol Calibration Standard 1	No specific data.
		Glycerol Calibration Standard 2	No specific data.
		Glycerol Calibration Standard 3	No specific data.
		Glycerol Calibration Standard 4	No specific data.
		Glycerol Calibration Standard 5	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Glycerol Calibration Standard 1	No known significant effects or critical hazards.
	Glycerol Calibration Standard 2	No known significant effects or critical hazards.
	Glycerol Calibration Standard 3	No known significant effects or critical hazards.
	Glycerol Calibration Standard 4	No known significant effects or critical hazards.
	Glycerol Calibration Standard 5	No known significant effects or critical hazards.
Carcinogenicity	: Glycerol Calibration Standard 1	No known significant effects or critical hazards.
	Glycerol Calibration Standard 2	No known significant effects or critical hazards.
	Glycerol Calibration Standard 3	No known significant effects or critical hazards.
	Glycerol Calibration Standard 4	No known significant effects or critical hazards.
	Glycerol Calibration Standard 5	No known significant effects or critical hazards.
Mutagenicity	: Glycerol Calibration Standard 1	No known significant effects or critical hazards.
	Glycerol Calibration Standard 2	No known significant effects or critical hazards.
	Glycerol Calibration Standard 3	No known significant effects or critical hazards.
	Glycerol Calibration Standard 4	No known significant effects or critical hazards.
	Glycerol Calibration Standard 5	No known significant effects or critical hazards.
Teratogenicity	: Glycerol Calibration Standard 1	No known significant effects or critical hazards.
	Glycerol Calibration Standard 2	No known significant effects or critical hazards.
	Glycerol Calibration Standard 3	No known significant effects or critical hazards.
	Glycerol Calibration Standard 4	No known significant effects or critical hazards.
	Glycerol Calibration Standard 5	No known significant effects or critical hazards.
Developmental effects	: Glycerol Calibration Standard 1	No known significant effects or critical hazards.
	Glycerol Calibration Standard 2	No known significant effects or critical hazards.
	Glycerol Calibration Standard 3	No known significant effects or critical hazards.
	Glycerol Calibration Standard 4	No known significant effects or critical hazards.
	Glycerol Calibration Standard 5	No known significant effects or critical hazards.
Fertility effects	: Glycerol Calibration Standard 1	No known significant effects or critical hazards.
	Glycerol Calibration Standard 2	No known significant effects or critical hazards.
	Glycerol Calibration Standard 3	No known significant effects or critical hazards.
	Glycerol Calibration	No known significant effects or critical hazards.

Section 11. Toxicological information

Standard 4
Glycerol Calibration
Standard 5

No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Glycerol Calibration Standard 1 Oral Dermal Inhalation (vapours)	891.9 mg/kg 1121.1 mg/kg 14.59 mg/l
Glycerol Calibration Standard 2 Oral Dermal Inhalation (vapours)	891.1 mg/kg 1120.1 mg/kg 14.57 mg/l
Glycerol Calibration Standard 3 Oral Dermal Inhalation (vapours)	891.1 mg/kg 1120.1 mg/kg 14.58 mg/l
Glycerol Calibration Standard 4 Oral Dermal Inhalation (vapours)	891.1 mg/kg 1120.1 mg/kg 14.58 mg/l
Glycerol Calibration Standard 5 Oral Dermal Inhalation (vapours)	891.1 mg/kg 1120.1 mg/kg 14.58 mg/l

Other information

: **Glycerol Calibration Standard 1**

Adverse symptoms may include the following: kidney abnormalities. Over-exposure may cause serious liver disorders.

Glycerol Calibration Standard 2

Adverse symptoms may include the following: kidney abnormalities. Over-exposure may cause serious liver disorders.

Glycerol Calibration Standard 3

Adverse symptoms may include the following: kidney abnormalities. Over-exposure may cause serious liver disorders.

Glycerol Calibration Standard 4

Adverse symptoms may include the following: kidney abnormalities. Over-exposure may cause serious liver disorders.

Glycerol Calibration Standard 5

Adverse symptoms may include the following: kidney abnormalities. Over-exposure may cause serious liver disorders.

Section 12. Ecological information

Toxicity

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Glycerol Calibration Standard 1 Pyridine	Acute EC50 110000 µg/l Fresh water Acute LC50 182000 µg/l Fresh water Acute LC50 520000 µg/l Fresh water Acute LC50 26000 µg/l Fresh water	Algae - Selenastrum sp. Crustaceans - Gammarus pulex Daphnia - Daphnia pulex Fish - Cyprinus carpio	96 hours 48 hours 48 hours 96 hours
Glycerol Calibration Standard 2 Pyridine	Acute EC50 110000 µg/l Fresh water Acute LC50 182000 µg/l Fresh water Acute LC50 520000 µg/l Fresh water Acute LC50 26000 µg/l Fresh water	Algae - Selenastrum sp. Crustaceans - Gammarus pulex Daphnia - Daphnia pulex Fish - Cyprinus carpio	96 hours 48 hours 48 hours 96 hours
Glycerol Calibration Standard 3 Pyridine	Acute EC50 110000 µg/l Fresh water Acute LC50 182000 µg/l Fresh water Acute LC50 520000 µg/l Fresh water Acute LC50 26000 µg/l Fresh water	Algae - Selenastrum sp. Crustaceans - Gammarus pulex Daphnia - Daphnia pulex Fish - Cyprinus carpio	96 hours 48 hours 48 hours 96 hours
Glycerol Calibration Standard 4 Pyridine	Acute EC50 110000 µg/l Fresh water Acute LC50 182000 µg/l Fresh water Acute LC50 520000 µg/l Fresh water Acute LC50 26000 µg/l Fresh water	Algae - Selenastrum sp. Crustaceans - Gammarus pulex Daphnia - Daphnia pulex Fish - Cyprinus carpio	96 hours 48 hours 48 hours 96 hours
Glycerol Calibration Standard 5 Pyridine	Acute EC50 110000 µg/l Fresh water Acute LC50 182000 µg/l Fresh water Acute LC50 520000 µg/l Fresh water Acute LC50 26000 µg/l Fresh water	Algae - Selenastrum sp. Crustaceans - Gammarus pulex Daphnia - Daphnia pulex Fish - Cyprinus carpio	96 hours 48 hours 48 hours 96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Glycerol Calibration Standard 1 Pyridine	-	-	Readily
Glycerol Calibration Standard 2 Pyridine	-	-	Readily
Glycerol Calibration Standard 3 Pyridine	-	-	Readily
Glycerol Calibration Standard 4 Pyridine	-	-	Readily
Glycerol Calibration Standard 5 Pyridine	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
Glycerol Calibration Standard 1 Pyridine	0.64	-	low
Glycerol Calibration Standard 2 Pyridine	0.64	-	low
Glycerol Calibration Standard 3 Pyridine	0.64	-	low
Glycerol Calibration Standard 4 Pyridine	0.64	-	low
Glycerol Calibration Standard 5 Pyridine	0.64	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

Additional information

Remarks: De minimis quantities

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Europe	: Not determined.
Japan	: <input checked="" type="checkbox"/> Japan inventory (ENCS) : Not determined. Japan inventory (ISHL) : All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 16/07/2018

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Version : 5

Key to abbreviations

ADG = Australian Dangerous Goods
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 NOHSC = National Occupational Health and Safety Commission

Section 16. Any other relevant information

SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

Procedure used to derive the classification

Classification	Justification
Glycerol Calibration Standard 1 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332	On basis of test data Calculation method Calculation method Calculation method
Glycerol Calibration Standard 2 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332	On basis of test data Calculation method Calculation method Calculation method
Glycerol Calibration Standard 3 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332	On basis of test data Calculation method Calculation method Calculation method
Glycerol Calibration Standard 4 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332	On basis of test data Calculation method Calculation method Calculation method
Glycerol Calibration Standard 5 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332	On basis of test data Calculation method Calculation method Calculation method

References : Not available.

🔍 Indicates information that has changed from previously issued version.

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