

# SAFETY DATA SHEET



SureDirect Blood PCR Kit, Part Number 600920

## Section 1. Identification

**Product identifier** : SureDirect Blood PCR Kit, Part Number 600920  
**Part no. (chemical kit)** : 600920  
**Part no.** : DMSO 600260-53  
 SureDirect Blood PCR 2X MM 600920-51  
 10X Control Primers + Template 600920-52

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

**Identified uses** :  Analytical reagent.  
 DMSO 1 ml  
 SureDirect Blood PCR 2X MM 1.3 ml (100 reactions)  
 10X Control Primers + Template 0.02 ml (100 reactions 20 µl)

**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

**DMSO**  
 H227 FLAMMABLE LIQUIDS - Category 4  
 H320 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

**SureDirect Blood PCR 2X MM**  
 H320 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B  
 SureDirect Blood PCR 2X MM Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%

### GHS label elements

**Signal word** :  DMSO WARNING  
 SureDirect Blood PCR 2X MM WARNING  
 MM  
 10X Control Primers + Template No signal word.

**Hazard statements** :  DMSO H227 - Combustible liquid.  
 H320 - Causes eye irritation.  
 SureDirect Blood PCR 2X MM H320 - Causes eye irritation.  
 MM  
 10X Control Primers + Template No known significant effects or critical hazards.  
 Template

### Precautionary statements

## Section 2. Hazard(s) identification

<b>Prevention</b>	: <b>DMSO</b>  SureDirect Blood PCR 2X MM 10X Control Primers + Template	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Not applicable.  Not applicable.
<b>Response</b>	: <b>DMSO</b>  SureDirect Blood PCR 2X MM  10X Control Primers + Template	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. Not applicable.
<b>Storage</b>	: <b>DMSO</b> SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not applicable. Not applicable. Not applicable.
<b>Disposal</b>	: <b>DMSO</b>  SureDirect Blood PCR 2X MM 10X Control Primers + Template	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. Not applicable. Not applicable.
<b>Supplemental label elements</b>		
<b>Additional warning phrases</b>	: <b>DMSO</b> SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not applicable. Not applicable. Not applicable.
<b>Other hazards which do not result in classification</b>	: <b>DMSO</b> SureDirect Blood PCR 2X MM 10X Control Primers + Template	None known. None known. None known.

## Section 3. Composition and ingredient information

<b>Substance/mixture</b>	: <b>DMSO</b> SureDirect Blood PCR 2X MM 10X Control Primers + Template	Substance Mixture  Mixture
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### CAS number/other identifiers

## Section 3. Composition and ingredient information

Ingredient name	% (w/w)	CAS number
<b>DMSO</b> Dimethyl sulfoxide	100	67-68-5
<b>SureDirect Blood PCR 2X MM</b> Glycerol	≥30 - ≤60	56-81-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	: <b>DMSO</b>	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. If irritation persists, get medical attention.
	SureDirect Blood PCR 2X MM	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. If irritation persists, get medical attention.
	10X Control Primers + Template	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.
<b>Inhalation</b>	: <b>DMSO</b>	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.
	SureDirect Blood PCR 2X MM	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.
	10X Control Primers + Template	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of

## Section 4. First aid measures

### Skin contact

: DMSO

SureDirect Blood PCR 2X  
MM10X Control Primers +  
Template

decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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

### Ingestion

: DMSO

SureDirect Blood PCR 2X  
MM10X Control Primers +  
Template

Wash out mouth with water. Remove dentures if any. 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.

Wash out mouth with water. Remove dentures if any. 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.

Wash out mouth with water. 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.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

#### Eye contact

: DMSO

SureDirect Blood PCR 2X  
MM10X Control Primers +  
Template

Causes eye irritation.  
Causes eye irritation.

No known significant effects or critical hazards.

#### Inhalation

: DMSO

SureDirect Blood PCR 2X  
MM10X Control Primers +  
Template

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

No known significant effects or critical hazards.

## Section 4. First aid measures

<b>Skin contact</b>	: DMSO	No known significant effects or critical hazards.
	SureDirect Blood PCR 2X MM	No known significant effects or critical hazards.
	10X Control Primers + Template	No known significant effects or critical hazards.
<b>Ingestion</b>	: DMSO	No known significant effects or critical hazards.
	SureDirect Blood PCR 2X MM	No known significant effects or critical hazards.
	10X Control Primers + Template	No known significant effects or critical hazards.

### Over-exposure signs/symptoms

<b>Eye contact</b>	: <input checked="" type="checkbox"/> DMSO	Adverse symptoms may include the following: irritation watering redness
	SureDirect Blood PCR 2X MM	Adverse symptoms may include the following:  irritation watering redness
	10X Control Primers + Template	No specific data.
<b>Inhalation</b>	: DMSO	No specific data.
	SureDirect Blood PCR 2X MM	No specific data.
	10X Control Primers + Template	No specific data.
<b>Skin contact</b>	: DMSO	No specific data.
	SureDirect Blood PCR 2X MM	No specific data.
	10X Control Primers + Template	No specific data.
<b>Ingestion</b>	: DMSO	No specific data.
	SureDirect Blood PCR 2X MM	No specific data.
	10X Control Primers + Template	No specific data.

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

<b>Notes to physician</b>	: DMSO	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureDirect Blood PCR 2X MM	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.
	10X Control Primers + Template	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.
<b>Specific treatments</b>	: DMSO	No specific treatment.
	SureDirect Blood PCR 2X MM	No specific treatment.
	10X Control Primers + Template	No specific treatment.

## Section 4. First aid measures

<b>Protection of first-aiders</b>	: DMSO	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.
	SureDirect Blood PCR 2X MM	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.
	10X Control Primers + Template	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	: DMSO	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	SureDirect Blood PCR 2X MM	Use an extinguishing agent suitable for the surrounding fire.
	10X Control Primers + Template	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: DMSO	Do not use water jet.
	SureDirect Blood PCR 2X MM	None known.
	10X Control Primers + Template	None known.

<b>Specific hazards arising from the chemical</b>	: DMSO	Combustible liquid. 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.
	SureDirect Blood PCR 2X MM	In a fire or if heated, a pressure increase will occur and the container may burst.
	10X Control Primers + Template	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: DMSO	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
	SureDirect Blood PCR 2X MM	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides
	10X Control Primers + Template	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds

## Section 5. Firefighting measures

**Special protective actions for fire-fighters** : DMSO

SureDirect Blood PCR 2X  
MM

10X Control Primers +  
Template

**Special protective equipment for fire-fighters** : DMSO

SureDirect Blood PCR 2X  
MM

10X Control Primers +  
Template

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.

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.

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.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** :  DMSO

SureDirect Blood PCR 2X  
MM

10X Control Primers +  
Template

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.

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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.

**For emergency responders** : DMSO

SureDirect Blood PCR 2X  
MM

10X Control Primers +

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".

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If specialised clothing is required to deal with the

## Section 6. Accidental release measures

Template spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : DMSO

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).

SureDirect Blood PCR 2X MM

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).

10X Control Primers + Template

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** : DMSO

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.

SureDirect Blood PCR 2X MM


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.

10X Control Primers + Template

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.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** :  DMSO

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. Empty containers retain product residue and can be hazardous. Do not reuse container.

SureDirect Blood PCR 2X MM

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or

## Section 7. Handling and storage

### Advice on general occupational hygiene

10X Control Primers +  
Template

: DMSO

mist. 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.

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. See also Section 8 for additional information on hygiene measures.

SureDirect Blood PCR 2X  
MM

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.

10X Control Primers +  
Template

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

: DMSO

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 oxidising 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.

SureDirect Blood PCR 2X  
MM

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

10X Control Primers +  
Template

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. See Section 10 for

## Section 7. Handling and storage

incompatible materials before handling or use.

## Section 8. Exposure controls and personal protection

### Control parameters

### Occupational exposure limits

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> <b>DMSO</b> Dimethyl sulfoxide	<b>DFG MAC-values list (Germany, 7/2022).</b> <b>Absorbed through skin.</b> PEAK: 320 mg/m <sup>3</sup> , 4 times per shift, 15 minutes. TWA: 160 mg/m <sup>3</sup> 8 hours. PEAK: 100 ppm, 4 times per shift, 15 minutes. TWA: 50 ppm 8 hours.
<b>SureDirect Blood PCR 2X MM</b> Glycerol	<b>Safe Work Australia (Australia, 10/2022).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.

### Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- 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: chemical splash goggles.

### Skin protection

- Hand protection** :  Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls and personal protection

**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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

<b>Physical state</b>	:	DMSO SureDirect Blood PCR 2X MM	Liquid. [Clear.] Liquid.
		10X Control Primers + Template	Liquid.
<b>Colour</b>	:	DMSO SureDirect Blood PCR 2X MM	Colourless. Not available.
		10X Control Primers + Template	Not available.
<b>Odour</b>	:	DMSO SureDirect Blood PCR 2X MM	Odourless. [Slight] Not available.
		10X Control Primers + Template	Not available.
<b>Odour threshold</b>	:	DMSO SureDirect Blood PCR 2X MM	Not available. Not available.
		10X Control Primers + Template	Not available.
<b>pH</b>	:	DMSO SureDirect Blood PCR 2X MM	Not available. 10
		10X Control Primers + Template	8
<b>Melting point/freezing point</b>	:	DMSO SureDirect Blood PCR 2X MM	18.5°C (65.3°F) Not available.
		10X Control Primers + Template	0°C (32°F)
<b>Boiling point, initial boiling point, and boiling range</b>	:	DMSO SureDirect Blood PCR 2X MM	189°C (372.2°F) Not available.
		10X Control Primers + Template	100°C (212°F)
<b>Flash point</b>	:	<input checked="" type="checkbox"/> DMSO  SureDirect Blood PCR 2X MM	Closed cup: 87°C (188.6°F) [ASTM D 93] Open cup: 87°C (188.6°F) Not available.
		10X Control Primers + Template	Not available.

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
<input checked="" type="checkbox"/> SureDirect Blood PCR 2X MM						
Glycerol	-	-	-	177	350.6	-

## Section 9. Physical and chemical properties and safety characteristics

**Evaporation rate** : DMSO 0.026 (butyl acetate = 1)  
 SureDirect Blood PCR 2X MM Not available.  
 10X Control Primers + Template Not available.

**Flammability** : DMSO Not applicable.  
 SureDirect Blood PCR 2X MM Not applicable.  
 10X Control Primers + Template Not applicable.

**Lower and upper explosion limit/flammability limit** : DMSO Lower: 2.6%  
 Upper: 28.5%  
 SureDirect Blood PCR 2X MM Not available.  
 10X Control Primers + Template Not available.

**Vapour pressure** : DMSO 0.056 kPa (0.42 mm Hg) [EU A.4]

Ingredient name	Vapour Pressure at 20° C			Vapour pressure at 50° C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<b>SureDirect Blood PCR 2X MM</b>						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
<b>10X Control Primers + Template</b>						
water	17.5	2.3	-	92.258	12.3	-

**Relative vapour density** : DMSO 2.7 [Air = 1]  
 SureDirect Blood PCR 2X MM Not available.  
 10X Control Primers + Template Not available.

**Relative density** : DMSO 1.1  
 SureDirect Blood PCR 2X MM Not available.  
 10X Control Primers + Template Not available.

Media	Result
<b>DMSO</b>	
water	Soluble
<b>SureDirect Blood PCR 2X MM</b>	
water	Soluble
<b>10X Control Primers + Template</b>	
water	Soluble

**Partition coefficient: n-octanol/water** : DMSO -1.35  
 SureDirect Blood PCR 2X MM Not applicable.  
 10X Control Primers + Template Not applicable.

**Auto-ignition temperature** : DMSO 300 to 302°C (572 to 575.6°F)

## Section 9. Physical and chemical properties and safety characteristics

	Ingredient name	°C	°F	Method
	SureDirect Blood PCR 2X MM			
	Glycerol	370	698	-
<b>Decomposition temperature</b>	: DMSO	140 to 189°C (284 to 372.2°F)		
	SureDirect Blood PCR 2X MM	Not available.		
	10X Control Primers + Template	Not available.		
<b>Viscosity</b>	: DMSO	Dynamic: 2.14 mPa·s (2.14 cP)		
	SureDirect Blood PCR 2X MM	Not available.		
	10X Control Primers + Template	Not available.		
<b>Particle characteristics</b>				
<b>Median particle size</b>	: DMSO	Not applicable.		
	SureDirect Blood PCR 2X MM	Not applicable.		
	10X Control Primers + Template	Not applicable.		

## Section 10. Stability and reactivity

<b>Reactivity</b>	: DMSO	No specific test data related to reactivity available for this product or its ingredients.
	SureDirect Blood PCR 2X MM	No specific test data related to reactivity available for this product or its ingredients.
	10X Control Primers + Template	No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: DMSO	The product is stable.
	SureDirect Blood PCR 2X MM	The product is stable.
	10X Control Primers + Template	The product is stable.
<b>Possibility of hazardous reactions</b>	: DMSO	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureDirect Blood PCR 2X MM	Under normal conditions of storage and use, hazardous reactions will not occur.
	10X Control Primers + Template	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: DMSO	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.
	SureDirect Blood PCR 2X MM	No specific data.
	10X Control Primers + Template	No specific data.

## Section 10. Stability and reactivity

<b>Incompatible materials</b>	: DMSO  SureDirect Blood PCR 2X MM 10X Control Primers + Template	Reactive or incompatible with the following materials: oxidising materials May react or be incompatible with oxidising materials.  May react or be incompatible with oxidising materials.
<b>Hazardous decomposition products</b>	: DMSO  SureDirect Blood PCR 2X MM  10X Control Primers + Template	Under normal conditions of storage and use, hazardous decomposition products should not be produced.  Under normal conditions of storage and use, hazardous decomposition products should not be produced.  Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>DMSO</b> Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-
<b>SureDirect Blood PCR 2X MM</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>DMSO</b> Dimethyl sulfoxide	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
<b>SureDirect Blood PCR 2X MM</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

#### Sensitisation

Not available.

#### 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)

## Section 11. Toxicological information

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

<b>Information on likely routes of exposure</b>	: <input checked="" type="checkbox"/> DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes. Not available.
<b><u>Potential acute health effects</u></b>		
<b>Eye contact</b>	: <input checked="" type="checkbox"/> DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Causes eye irritation. Causes eye irritation. No known significant effects or critical hazards.
<b>Inhalation</b>	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	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>	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: <input checked="" type="checkbox"/> DMSO  SureDirect Blood PCR 2X MM  10X Control Primers + Template	Adverse symptoms may include the following: irritation watering redness Adverse symptoms may include the following: irritation watering redness No specific data.
<b>Inhalation</b>	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No specific data. No specific data. No specific data.
<b>Skin contact</b>	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No specific data. No specific data. No specific data.

## Section 11. Toxicological information

<b>Ingestion</b>	: DMSO	No specific data.
	SureDirect Blood PCR 2X	No specific data.
	MM	
	10X Control Primers +	No specific data.
	Template	

### 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

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

**General** : DMSO No known significant effects or critical hazards.  
 SureDirect Blood PCR 2X No known significant effects or critical hazards.  
 MM  
 10X Control Primers + No known significant effects or critical hazards.  
 Template

**Carcinogenicity** : DMSO No known significant effects or critical hazards.  
 SureDirect Blood PCR 2X No known significant effects or critical hazards.  
 MM  
 10X Control Primers + No known significant effects or critical hazards.  
 Template

**Mutagenicity** : DMSO No known significant effects or critical hazards.  
 SureDirect Blood PCR 2X No known significant effects or critical hazards.  
 MM  
 10X Control Primers + No known significant effects or critical hazards.  
 Template

**Reproductive toxicity** : DMSO No known significant effects or critical hazards.  
 SureDirect Blood PCR 2X No known significant effects or critical hazards.  
 MM  
 10X Control Primers + No known significant effects or critical hazards.  
 Template

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
<b>DMSO</b> Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A
<b>SureDirect Blood PCR 2X MM</b> Glycerol	12600	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
<b>DMSO</b> Dimethyl sulfoxide	Acute LC50 25000 ppm Fresh water  Acute LC50 34000000 µg/l Fresh water Chronic NOEC 100 µl/L Marine water Chronic NOEC 100 µl/L Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate Fish - <i>Pimephales promelas</i> Algae - <i>Ulva lactuca</i> Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours  96 hours 72 hours 21 days
<b>SureDirect Blood PCR 2X MM</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>DMSO</b> Dimethyl sulfoxide	OECD 301D Ready Biodegradability - Closed Bottle Test	31 % - Not readily - 28 days	-	-
<b>SureDirect Blood PCR 2X MM</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>DMSO</b> Dimethyl sulfoxide	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>DMSO</b> Dimethyl sulfoxide	-1.35	3.16	Low
<b>SureDirect Blood PCR 2X MM</b> Glycerol	-1.76	-	Low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : 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. 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 .

**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 IMO instruments** : Not available.

## Section 15. Regulatory information

### Standard for the Uniform Scheduling of Medicines and Poisons

6

### 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

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.

**New Zealand** : Not determined.

**United States** : All components are active or exempted.

## Section 16. Any other relevant information

### History

Date of issue/Date of revision : 10/11/2023

Date of previous issue : 02/03/2020

Version : 4

### Key to abbreviations

: ADG = Australian Dangerous Goods  
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
 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)  
 N/A = Not available  
 SUSMP = Standard Uniform Schedule of Medicine and Poisons  
 UN = United Nations

### Procedure used to derive the classification

Classification	Justification
<b>DMSO</b> FLAMMABLE LIQUIDS - Category 4 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	On basis of test data On basis of test data
<b>SureDirect Blood PCR 2X MM</b> SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method

Indicates information that has changed from previously issued version.

### Notice to reader

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