

SAFETY DATA SHEET



SureDirect Blood PCR Kit, Part Number 600920

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

1.1 Product identifier

Product name : SureDirect Blood PCR Kit, Part Number 600920
CAS number : DMSO 67-68-5
 SureDirect Blood PCR 2X MM Not applicable.
 10X Control Primers + Template Not applicable.
Part no. (chemical kit) : 600920
Part no. : DMSO 600260-53
 SureDirect Blood PCR 600920-51
 2X MM
 10X Control Primers + Template 600920-52

1.2 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)
Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
 Hewlett-Packard-Str. 8
 76337 Waldbronn
 Germany
 0800 603 1000
e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : DMSO Mono-constituent substance
 SureDirect Blood PCR 2X MM Mixture
 10X Control Primers + Template Mixture

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

Not classified.

DMSO The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
 SureDirect Blood PCR 2X MM The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
 10X Control Primers + Template The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

SECTION 2: Hazards identification

Ingredients of unknown toxicity	: SureDirect Blood PCR 2X MM 10X Control Primers + Template	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60% Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
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See Section 16 for the full text of the H statements declared above.

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

2.2 Label elements

Signal word	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No signal word. No signal word. No signal word.
Hazard statements	: 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.
<u>Precautionary statements</u>		
Prevention	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not applicable. Not applicable. Not applicable.
Response	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not applicable. Not applicable. Not applicable.
Storage	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not applicable. Not applicable. Not applicable.
Disposal	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not applicable. Not applicable. Not applicable.
Supplemental label elements	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not applicable. Not applicable. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not applicable. Not applicable. Not applicable.

Special packaging requirements

SureDirect Blood PCR Kit, Part Number 600920

SECTION 2: Hazards identification

Tactile warning of danger : DMSO Not applicable.
 SureDirect Blood PCR Not applicable.
 2X MM
 10X Control Primers + Not applicable.
 Template

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII :

PBT	P	B	T	vPvB	vP	vB
DMSO						
No	N/A	No	No	No	N/A	No

SureDirect Blood PCR 2X MM This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
 10X Control Primers + Template This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification :

DMSO None known.
 SureDirect Blood PCR None known.
 2X MM
 10X Control Primers + None known.
 Template

SECTION 3: Composition/information on ingredients

3.1 Substances : DMSO Mono-constituent substance
 SureDirect Blood PCR 2X MM Mixture
 10X Control Primers + Template Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
DMSO dimethyl sulfoxide	EC: 200-664-3 CAS: 67-68-5	100	Not classified.	-	[1]
SureDirect Blood PCR 2X MM glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified. See Section 16 for the full text of the H statements declared above.	-	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

DMSO [1] Constituent
 SureDirect Blood PCR 2X MM [1] Substance with a workplace exposure limit

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: DMSO	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.
	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. Get medical attention if irritation occurs.
	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.
Inhalation	: DMSO	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	SureDirect Blood PCR 2X MM	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 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 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	: DMSO	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureDirect Blood PCR 2X MM	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X Control Primers + Template	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: DMSO	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.
	SureDirect Blood PCR 2X MM	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.
	10X Control Primers + Template	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.
Protection of first-aiders	: DMSO	No action shall be taken involving any personal risk or without suitable training.
	SureDirect Blood PCR 2X MM	No action shall be taken involving any personal risk or without suitable training.
	10X Control Primers + Template	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

SECTION 4: First aid measures

Eye contact	: 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.
Inhalation	: 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.
Skin contact	: 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.
Ingestion	: 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.

Over-exposure signs/symptoms

Eye contact	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No specific data. No specific data. No specific data.
Inhalation	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No specific data. No specific data. No specific data.
Skin contact	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No specific data. No specific data. No specific data.
Ingestion	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No specific data. No specific data. No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: DMSO	Use an extinguishing agent suitable for the surrounding fire.
	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.
Unsuitable extinguishing media	: DMSO	None known.
	SureDirect Blood PCR 2X MM	None known.
	10X Control Primers + Template	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: DMSO	In a fire or if heated, a pressure increase will occur and the container may burst.
	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.
Hazardous combustion products	: 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

5.3 Advice for firefighters

Special precautions for fire-fighters	: DMSO	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.
	SureDirect Blood PCR 2X MM	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.
	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.
Special protective equipment for fire-fighters	: DMSO	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	SureDirect Blood PCR 2X MM	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	10X Control Primers +	Fire-fighters should wear appropriate protective equipment

SECTION 5: Firefighting measures

Template	and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: DMSO	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.
SureDirect Blood PCR 2X MM	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.
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. Put on appropriate personal protective equipment.

For emergency responders

: DMSO	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".
SureDirect Blood PCR 2X MM	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".
10X Control Primers + Template	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".

6.2 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).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up

: DMSO	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.
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 +	Stop leak if without risk. Move containers from spill area.

SECTION 6: Accidental release measures

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: DMSO	Put on appropriate personal protective equipment (see Section 8).
	SureDirect Blood PCR 2X MM	Put on appropriate personal protective equipment (see Section 8).
	10X Control Primers + Template	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: DMSO	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.

7.2 Conditions for safe storage, including any incompatibilities

Storage	: DMSO	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.
	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

SECTION 7: Handling and storage

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.

7.3 Specific end use(s)

Recommendations	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not available. Not available. Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
SureDirect Blood PCR 2X MM Glycerol	NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV-8hr: 10 mg/m ³ 8 hours. Form: mist

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

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

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
DMSO Dimethyl sulfoxide	DNEL	Long term Inhalation	47 mg/m ³	General population	Local
	DNEL	Long term Oral	60 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	100 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	120 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	200 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	265 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	484 mg/m ³	Workers	Systemic

PNECs

SECTION 8: Exposure controls/personal protection

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

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

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

Respiratory protection : 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.

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

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: DMSO	Liquid. [Clear.]
	SureDirect Blood PCR	Liquid.
	2X MM	
Colour	: DMSO	Colourless.
	SureDirect Blood PCR	Not available.
	2X MM	
Odour	: DMSO	Odourless. [Slight]
	SureDirect Blood PCR	Not available.
	2X MM	
	: 10X Control Primers + Template	Liquid.
	: 10X Control Primers + Template	Not available.
	: 10X Control Primers + Template	Not available.

SECTION 9: Physical and chemical properties

Odour threshold	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not available. Not available. Not available.
Melting point/freezing point	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	18.5°C Not available. 0°C
Initial boiling point and boiling range	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	189°C Not available. 100°C
Flammability	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not applicable. Not applicable. Not applicable.
Upper/lower flammability or explosive limits	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Lower: 2.6% Upper: 28.5% Not available. Not available.
Flash point	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Closed cup: 87°C [ASTM D 93] Open cup: 87°C Not available. Not available.

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
SureDirect Blood PCR 2X MM				
glycerol	-	-	177	-

Auto-ignition temperature	: DMSO	300 to 302°C
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Ingredient name	°C	Method
SureDirect Blood PCR 2X MM		
glycerol	370	-

Decomposition temperature	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	140 to 189°C Not available. Not available.
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pH	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Not available. 10 8
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Viscosity	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Dynamic: 2.14 mPa·s Not available. Not available.
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SECTION 9: Physical and chemical properties

Solubility(ies)	Media	Result
	DMSO	
	water	Soluble
	SureDirect Blood PCR 2X MM	
	water	Soluble
	10X Control Primers + Template	
	water	Soluble

Partition coefficient: n-octanol/water :

DMSO	-1.35
SureDirect Blood PCR 2X MM	Not applicable.
10X Control Primers + Template	Not applicable.

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
SureDirect Blood PCR 2X MM						
water	17.5	2.3	-	92.258	12.3	-
glycerol	0.000075	0.00001	-	0.0025	0.00033	-
10X Control Primers + Template						
water	17.5	2.3	-	92.258	12.3	-

Evaporation rate :

DMSO	0.026 (butyl acetate = 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.

Vapour density :

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

Explosive properties :

DMSO	Not available.
SureDirect Blood PCR 2X MM	Not available.
10X Control Primers + Template	Not available.

Oxidising properties :

DMSO	Not available.
SureDirect Blood PCR 2X MM	Not available.
10X Control Primers + Template	Not available.

Particle characteristics

Median particle size :

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

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SECTION 9: Physical and chemical properties

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	No specific data. No specific data. No specific data.
10.5 Incompatible materials	: DMSO SureDirect Blood PCR 2X MM 10X Control Primers + Template	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: 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

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
DMSO Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-

Acute toxicity estimates

SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
DMSO Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation	
DMSO 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	-	

Sensitiser

Conclusion/Summary : 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)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

: 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.

Potential acute health effects

Inhalation

: 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.

Ingestion

: 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.

Skin contact

: 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.

SECTION 11: Toxicological information

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

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: DMSO	No specific data.
	SureDirect Blood PCR	No specific data.
	2X MM	
	10X Control Primers + Template	No specific data.
Ingestion	: DMSO	No specific data.
	SureDirect Blood PCR	No specific data.
	2X MM	
	10X Control Primers + Template	No specific data.
Skin contact	: DMSO	No specific data.
	SureDirect Blood PCR	No specific data.
	2X MM	
	10X Control Primers + Template	No specific data.
Eye contact	: DMSO	No specific data.
	SureDirect Blood PCR	No specific data.
	2X MM	
	10X Control Primers + Template	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

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Potential chronic health effects

Conclusion/Summary	: Not available.	
General	: DMSO	No known significant effects or critical hazards.
	SureDirect Blood PCR	No known significant effects or critical hazards.
	2X MM	
	10X Control Primers + Template	No known significant effects or critical hazards.
Carcinogenicity	: DMSO	No known significant effects or critical hazards.
	SureDirect Blood PCR	No known significant effects or critical hazards.
	2X MM	
	10X Control Primers + Template	No known significant effects or critical hazards.
Mutagenicity	: DMSO	No known significant effects or critical hazards.
	SureDirect Blood PCR	No known significant effects or critical hazards.
	2X MM	
	10X Control Primers + Template	No known significant effects or critical hazards.

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SECTION 11: Toxicological information

Reproductive toxicity	: 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.
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11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

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

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
DMSO Dimethyl sulfoxide	OECD 301D Ready Biodegradability - Closed Bottle Test	31 % - Not readily - 28 days	-	-

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

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
DMSO Dimethyl sulfoxide	-1.35	3.16	Low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
DMSO Dimethyl sulfoxide	No	N/A	No	No	No	N/A	No

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SECTION 12: Ecological information

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

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

Special precautions : This material and its container must be disposed of in a safe way. 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

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

14.6 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.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

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

Other EU regulations

Industrial emissions (integrated pollution prevention and control) : Listed

- Air

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

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.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): All components are listed or exempted.
New Zealand	:	Not determined.
Philippines	:	Not determined.

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SECTION 15: Regulatory information

Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: All components are active or exempted.
Viet Nam	: Not determined.

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

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Not classified.	

Full text of abbreviated H statements

Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

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