Safety Data Sheet

In accordance with Regulation (EU) 2020/878

Revision date: 13.04.2023 version 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING	
Product name	HOT FIREPol® EvaGreen® qPCR Mix Plus (ROX), 5x
Catalog number	08-24-0000S, 08-24-00001, 08-24-00001-5, 08-24-00001-10, 08-24-00020
REACH registration number	Not applicable
ECHA registration number (EC-No)	Not applicable
Unique formula identifire (UFI) code	Not applicable
Recommended use of the chemical and uses advised against	This product is for Research Use Only. Not for consumer use.
Manufacturer/Supplier	Solis BioDyne OÜ Teaduspargi 9, 50411 Tartu, Estonia info@solisbiodyne.com Tel. +372 740 9960, Fax. +372 740 2079
Information in case of emergency	Solis BioDyne Tel. +372 740 9960 EU Emergency Service Tel 112 Estonian Poison Center +372 794 3794

2. HAZARDS IDENTIFICATION	
Classificaton of the substance or mixture	Classification according to Regulation (EC) No 1272/2008
Physical hazards	Not hazardous
Health hazards	Not hazardous
Environmental hazards	Not hazardous
Explosion hazards	Not hazardous
Additional hazards	This mixture does not contain any substances that are assessed to be a PBT or a vPvB The mixture does not contain any nanoforms
Label elements	Labelling according to Regulation (EC) No 1272/2008 [CLP]
Pictograms	None
Signal word	None
Hazard statements	Not applicable
EU Specific Hazard Statements	Not applicable
Precautionary Statements	
Prevention	Not applicable
Response	Not applicable
Storage	Routine storage at -28ºC to -18ºC until the end of shelf-life (Expiry Date marking on the package). Keep/store only in original/labeled container. Transport conditions in section 14
Disposal	Prevent product from entering drains. Do not allow material to contaminate ground water system
Other Hazards	No endocrine disruptors information is available

3. COMPOSITION/ INFORMATION ON INGREDIENTS
3.1 Substances Hazardous/Non-hazardous Components:
3.2 Mixtures Hazardous/Non-hazardous Components:

Component	CAS-No.	EC-No.	REACH reg No	Conc % (w/w)	Classification according to Regulation (EC) No 1272/2008 (CLP)		
					Pictogram, signal word code (s)	Hazard class and category code (s)	Hazard statement code (s)
H_20	7732-18-5	231-791-2	-	<90	-	-	-
Glycerol	56-81-5	200-289-5	01211947198718-XXXX	<9	-	-	-
$MgCl_2$	7791-18-6	232-094-6	-	<1	-	-	-
HOT FIREPol® DNA Polymerase	N/A	N/A	-	<0.1	-	-	-
dGTP	2564-35-4	219-887-2	-	<0.1	-	-	-
dCTP	2056-98-6	218-153-9	-	<0.1	-	-	-
dATP	1927-31-7	217-662-3	-	<0.1	-	-	-
dTTP	365-08-2	206-669-7	-	<0.1	-	-	-
EvaGreen® dye	N/A	N/A	-	<0.1	-	-	-
Reference dye	N/A	N/A	-	<0.1	-	-	-

The product contains no substances which at their given concentration, are considered to be hazardous to health.
We recommend handling all chemicals with caution.
There are no additional ingredients (incl nanoforms) present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment.

4. FIRST-AID MEASURES

Skin contact	Wash off with plenty of water. Immediate medical attention is not required.
Eye contact	Rinse opened eye immediately with plenty of water. Remove contact lenses if present. If irritation persists, get medical attention.
Inhalation	Move to fresh air. Consult a physician if necessary.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Consult a physician if necessary.
Most important symptoms and effects, both acute and delayed	No information available
Indication of any immediate medical attention and special treatment needed	None
Notes to physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, CO_2, water spary or alcohol resistant foam.
Unsuitable extinguishing media	No information available
Fire/Explosion hazards	Not applicable
Protective equipment and precautions for fire-fighters	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment. Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	Use personal protection recommended in Section 8.

Environmental precautions	Do not allow to enter surface/ sewers or ground water. Prevent further leakage or spillage if safe to do so. See section 12 for additional information.
Methods and material for containment and cleaning up	Soak up with inert absorbent material

7. HANDLING AND STORAGE

Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment
Conditions for safe storage, including any incompatibilities	Store at -20ºC. Keep/store only in original container. Transport conditions in section 14
Specific uses	For Research Use Only

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits		
Chemical Name	**Country**	**Limits**
Glycerol 56-81-5	Belgium (TWA)	10 mg/m^3
	Czech Republic	10 mg/m^3 TWA 15 mg/m^3 Ceiling
	France OEL (TLV)	10 mg/m^3
	Germany OEL (TWA)	200 mg/m^3 exposure factor 2
	Poland	10 mg/m^3 TWA
	Portugal	10 mg/m^3 TWA
	Spain OEL (TWA)	10 mg/m^3
	Switzerland	100 mg/m^3 STEL 50 mg/m^3 TWA
	United Kingdom	10 mg/m^3 TWA (mist)
	USA	15 mg/m^3 (total dust) 5 mg/m^3 (respirable)
Engineering measures	Showers. Eyewash stations. Ensure adequate ventilation.	
Personal protective equipment:		
Respiratory protection	Not required. Use in well ventilated areas.	
Skin and body protection	Wear suitable protective clothing and gloves	
Eye and face protection	Wear safety glasses with side shields (or goggles)	
Protection of hands	Check protective gloves prior to each use for their proper condition. Material of gloves: Nitrile rubber, NBP	
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice	
Environmental exposure controls	Prevent product from entering drains. Do not allow material to contaminate ground water system	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Colour	Colorless
Odour	Not defined
pH value	7.0-9.0. Contact info@solisbiodyne.com for specific information
Melting/freezing point	No data available
Boiling point/ boiling range	No data available
Flammability	No data available
Lower and upper explosion limit	No data available
Flash point	No data available
Autoignition temperature	No data available

Decomposition temperature	No data available
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient n-octanol/water	No data available
Vapor pressure	No data available
Density and/or relative density	No data available
Relative vapor density	No data available
Decomposition temperature	No data available
Particle characteristics	No data available
Information with regard to physical hazard classes	Not hazardous
Other safety characteristics	No information available

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	Hazardous reaction has not been reported
Conditions to avoid	No information available
Incompatible materials	Strong oxidizing agents, acids and alkali
Hazardous decomposition products	No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity	There is no evidence available indicating acute toxicity		
Chemical Name	**Oral LD50**	**Dermal LD50**	**Inhalation LC50**
Glycerol 56-81-5	= 12600 mg/kg Oral	> 10 g/kg(Rabbit)	>2.75mg/L(Rat)
Skin corrosion/irritation	May cause skin irritation		
Serious eye damage/irritation	May cause eye irritation		
Sensitization:			
Respiratory	Material may be irritating to mucous membranes and upper respiratory tract		
Skin	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals		
Germ cell mutagenicity	No data available		
Carcinogenicity	No data available		
Reproductive toxicity	No data available		
STOT-single exposure	No data available		
STOT-repeated exposure	No data available		
Aspiration hazard	No data available		
Endocrine disrupting properties	No data available		
Information on other hazards	No data available		

12. ECOLOGICAL INFORMATION

Marine pollutant	No data available
Ecotoxicity	No data available. Prevent product from entering drains. Do not allow material to contaminate ground water system.
Mobility	No data available
Persistence and degradability	No data available
Bioaccumulation	No data available
Endocrine disrupting properties	No data available
Othe adverse effects	No data available

13. DISPOSAL CONSIDERATIONS	
Waste handling and disposal	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.
Information regarding the disposal of the packaging	Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique
Physical/chemical properties that may affect waste treatment options shall be specified	No special
Sewage disposal	Do not empty into drains. Do not dispose of waste into sewer
Special precautions for any recommended waste treatment	Consider local regulations and safe disposal procedures

14. TRANSPORT INFORMATION	
UN number:	
UN proper shipping name	Not applicable
Transport hazard class (es):	
Packing group	Not applicable
Environmental hazards	Not hazardous goods
Special precautions for user	Handle in accordance with good industrial hygiene and safety practice
Land transport ADR/RID (cross-border):	
ADR/RID class	Not regulated
Air transport ICAO-TI and IATA-DGR:	
ICAO/IATA class	Not regulated
Additional information	This substance is considered to be non-hazardous for transport
Transport conditions	Transport at ambient temperature Routine storage after transport -28ºC to -18ºC
Maritime transport in bulk according to IMO instruments	Not regulated

15. REGULATORY INFORMATION		
Safety, health and environmetal regulations/legislation specific for the product	Safety, health and environmental regulations/legislation specific for the substance or mixture	None
	Substances of Very High Concern. EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances for Eventual Inclusion in Annex XIV	None
	Substance subject to authorisation per REACH Annex XIV	None
	Restricted substances under EC 1907/2006, Annex XVII	None
	Regulation (EC) No 649/2012 (Rotterdam Convention - export/import of dangerous chemicals)	None
	Regulation(EU)No2019/1021 (Stockholm Convention persistent organic pollutants)	None
	EU - Substances Depleting the Ozone layer (1005/2009)	None
	German Water hazard classes (Wassergefährdungsklassen)	Glycerol 56-81-5 (hazard class 1 - slightly hazardous to water)
Components of animal origin	Regulation (EC) No 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules as regards animal by-products and	Fish gelatin

	derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation)	
Chemical safety assessment	No Chemical safety assessment has been carried out	

16. OTHER INFORMATION	
Prepared by	Solis BioDyne / Technology specialist
Reason for revision	Revised according (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 1907/2006 (REACH)
Revision number	3
Revision date	13.04.2023
SDS is valid 3 years from revision date. Contact info@solisbiodyne.com for latest revision.	
Last changes	Added UFI, endocrine disruptors and nanforms information and formal changes in all sections except 4, 5, 6 and 10.
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 and (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006	
IMPORTANT: The information in this SDS is provided in good faith based on our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties or merchantability or fitness for a particular purpose. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable governmental requirements. Since conditions of use of the product are not under the control of Solis BioDyne it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. Solis BioDyne will not be liable for any damages resulting from handling or contact with the product.	
Abbreviations: ADR/RID – Road Transport of Dangerous Material/International Carriage of Dangerous Goods by Rail. AGW – Time-weighted Average Concentration EC – European Commission CLP – Classification, Labelling and Packaging IATA-DGR – International Air Transport Association-Dangerous Goods Regulations ICAO-TI – International Civil Aviation Organization-Technical Instructions IMO – International Maritime Organization LD – Lethal Dose NBP – N-Butyl-2-pyrrolidone OEL – Occupational Exposure Limits PBT – Persistent Bioaccumulative Toxic PEL – Permissible Exposure Limits STEL – Short Term Exposure Limit STOT – Specific target organ toxicity TLV – Threshold Limit Value TWA – Time-Weighted Average	

Safety Data Sheet

In accordance with Regulation (EU) 2020/878

Revision date: 04.07.2023 version 4

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING	
Product name	100 bp DNA Ladder Ready to Load
Catalog number	07-11-0000S, 07-11-00050, 07-11-00050-5, 07-11-00050-10
REACH registration number	Not applicable
ECHA registration number (EC-No)	Not applicable
Unique formula identifire (UFI) code	Not applicable
Recommended use of the chemical and uses advised against	This product is for Research Use Only. Not for consumer use.
Manufacturer/Supplier	Solis BioDyne OÜ Teaduspargi 9, 50411 Tartu, Estonia info@solisbiodyne.com Tel. +372 740 9960, Fax. +372 740 2079
Information in case of emergency	Solis BioDyne Tel. +372 740 9960 EU Emergency Service Tel 112 Estonian Poison Center +372 794 3794

2. HAZARDS IDENTIFICATION	
Classificaton of the substance or mixture	Classification according to Regulation (EC) No 1272/2008
Physical hazards	Not hazardous
Health hazards	Not hazardous
Environmental hazards	Not hazardous
Explosion hazards	Not hazardous
Additional hazards	This mixture does not contain any substances that are assessed to be a PBT or a vPvB The mixture does not contain any nanoforms
Label elements	Labelling according to Regulation (EC) No 1272/2008 [CLP]
Pictograms	None
Signal word	None
Hazard statements	Not applicable
EU Specific Hazard Statements	Not applicable
Precautionary Statements	
Prevention	Not applicable
Response	Not applicable
Storage	Routine storage at -28ºC to -18ºC until the end of shelf-life (Expiry Date marking on the package). Keep/store only in original/labeled container. Transport conditions in section 14
Disposal	Prevent product from entering drains. Do not allow material to contaminate ground water system
Other Hazards	No endocrine disruptors information is available

3. COMPOSITION/ INFORMATION ON INGREDIENTS
3.1 Substances Hazardous/Non-hazardous Components:
3.2 Mixtures Hazardous/Non-hazardous Components:

Component	CAS-No.	EC-No.	REACH reg No	Conc % (w/w)	Classification according to Regulation (EC) No 1272/2008 (CLP)		
					Pictogram, signal word code (s)	Hazard class and category code (s)	Hazard statement code (s)
H_2O	7732-18-5	231-791-2	-	<89	-	-	-
Glycerol	56-81-5	200-289-5	01211947198718-XXXX	<11	-	-	-
EDTA	6381-92-6	205-358-3	-	<1	-	-	-
SDS	151-21-3	205-788-1	-	<1	-	-	-
Bromophenol blue	34725-61-6	252-170-2	-	<0.1	-	-	-

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.
There are no additional ingredients (incl nanoforms) present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment.

4. FIRST-AID MEASURES

Skin contact	Wash off with plenty of water. Immediate medical attention is not required.
Eye contact	Rinse opened eye immediately with plenty of water. Remove contact lenses if present. If irritation persists, get medical attention.
Inhalation	Move to fresh air. Consult a physician if necessary.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Consult a physician if necessary.
Most important symptoms and effects, both acute and delayed	No information available
Indication of any immediate medical attention and special treatment needed	None
Notes to physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, CO_2, water spary or alcohol resistant foam.
Unsuitable extinguishing media	No information available
Fire/Explosion hazards	Not applicable
Protective equipment and precautions for fire-fighters	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment. Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	Use personal protection recommended in Section 8.
Environmental precautions	Do not allow to enter surface/ sewers or ground water. Prevent further leakage or spillage if safe to do so. See section 12 for additional information.
Methods and material for containment and cleaning up	Soak up with inert absorbent material

7. HANDLING AND STORAGE

Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment

Conditions for safe storage, including any incompatibilities	Store at -20ºC. Keep/store only in original container. Transport conditions in section 14
Specific uses	For Research Use Only

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits		
Chemical Name	**Country**	**Limits**
Glycerol 56-81-5	Belgium (TWA)	10 mg/m^3
	Czech Republic	10 mg/m^3 TWA 15 mg/m^3 Ceiling
	France OEL (TLV)	10 mg/m^3
	Germany OEL (TWA)	200 mg/m^3 exposure factor 2
	Poland	10 mg/m^3 TWA
	Portugal	10 mg/m^3 TWA
	Spain OEL (TWA)	10 mg/m^3
	Switzerland	100 mg/m^3 STEL 50 mg/m^3 TWA
	United Kingdom	10 mg/m^3 TWA (mist)
	USA	15 mg/m^3 (total dust) 5 mg/m^3 (respirable)
Engineering measures	Showers. Eyewash stations. Ensure adequate ventilation.	
Personal protective equipment:		
Respiratory protection	Not required. Use in well ventilated areas.	
Skin and body protection	Wear suitable protective clothing and gloves	
Eye and face protection	Wear safety glasses with side shields (or goggles)	
Protection of hands	Check protective gloves prior to each use for their proper condition. Material of gloves: Nitrile rubber, NBP	
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice	
Environmental exposure controls	Prevent product from entering drains. Do not allow material to contaminate ground water system	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Colour	Blue
Odour	Not defined
pH value	7.0-9.0. Contact info@solisbiodyne.com for specific information
Melting/freezing point	No data available
Boiling point/ boiling range	No data available
Flammability	No data available
Lower and upper explosion limit	No data available
Flash point	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient n-octanol/water	No data available
Vapor pressure	No data available
Density and/or relative density	No data available
Relative vapor density	No data available
Decomposition temperature	No data available
Particle characteristics	No data available

Information with regard to physical hazard classes	Not hazardous
Other safety characteristics	No information available

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	Hazardous reaction has not been reported
Conditions to avoid	No information available
Incompatible materials	Strong oxidizing agents, acids and alkali
Hazardous decomposition products	No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity	There is no evidence available indicating acute toxicity		
Chemical Name	**Oral LD50**	**Dermal LD50**	**Inhalation LC50**
Glycerol 56-81-5	= 12600 mg/kg Oral	> 10 g/kg(Rabbit)	>2.75mg/L(Rat)
Skin corrosion/irritation	May cause skin irritation		
Serious eye damage/irritation	May cause eye irritation		
Sensitization:			
Respiratory	Material may be irritating to mucous membranes and upper respiratory tract		
Skin	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals		
Germ cell mutagenicity	No data available		
Carcinogenicity	No data available		
Reproductive toxicity	No data available		
STOT-single exposure	No data available		
STOT-repeated exposure	No data available		
Aspiration hazard	No data available		
Endocrine disrupting properties	No data available		
Information on other hazards	No data available		

12. ECOLOGICAL INFORMATION

Marine pollutant	No data available
Ecotoxicity	No data available. Prevent product from entering drains. Do not allow material to contaminate ground water system.
Mobility	No data available
Persistence and degradability	No data available
Bioaccumulation	No data available
Endocrine disrupting properties	No data available
Othe adverse effects	No data available

13. DISPOSAL CONSIDERATIONS

Waste handling and disposal	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.
Information regarding the disposal of the packaging	Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique

Physical/chemical properties that may affect waste treatment options shall be specified	No special
Sewage disposal	Do not empty into drains. Do not dispose of waste into sewer
Special precautions for any recommended waste treatment	Consider local regulations and safe disposal procedures

14. TRANSPORT INFORMATION

UN number:	
UN proper shipping name	Not applicable
Transport hazard class (es):	
Packing group	Not applicable
Environmental hazards	Not hazardous goods
Special precautions for user	Handle in accordance with good industrial hygiene and safety practice
Land transport ADR/RID (cross-border):	
ADR/RID class	Not regulated
Air transport ICAO-TI and IATA-DGR:	
ICAO/IATA class	Not regulated
Additional information	This substance is considered to be non-hazardous for transport
Transport conditions	Transport at ambient temperature Routine storage after transport -28ºC to -18ºC
Maritime transport in bulk according to IMO instruments	Not regulated

15. REGULATORY INFORMATION

Safety, health and environmetal regulations/legislation specific for the product	Safety, health and environmental regulations/legislation specific for the substance or mixture	None
	Substances of Very High Concern. EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances for Eventual Inclusion in Annex XIV	None
	Substance subject to authorisation per REACH Annex XIV	None
	Restricted substances under EC 1907/2006, Annex XVII	None
	Regulation (EC) No 649/2012 (Rotterdam Convention - export/import of dangerous chemicals)	None
	Regulation(EU)No2019/1021 (Stockholm Convention persistent organic pollutants)	None
	EU - Substances Depleting the Ozone layer (1005/2009)	None
	German Water hazard classes (Wassergefährdungsklassen)	Glycerol 56-81-5 (hazard class 1 - slightly hazardous to water)
Components of animal origin	Regulation (EC) No 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation)	None
Chemical safety assessment	No Chemical safety assessment has been carried out	

16. OTHER INFORMATION

Prepared by	Solis BioDyne / Technology specialist
Reason for revision	Revised according (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 (REACH)

Revision number	4
Revision date	04.07.2023
SDS is valid 3 years from revision date. Contact info@solisbiodyne.com for latest revision.	
Last changes	Added UFI, endocrine disruptors and nanforms information and formal changes in all sections except 4, 5, 6 and 10.
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 and (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006	
IMPORTANT: The information in this SDS is provided in good faith based on our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties or merchantability or fitness for a particular purpose. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable governmental requirements. Since conditions of use of the product are not under the control of Solis BioDyne it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. Solis BioDyne will not be liable for any damages resulting from handling or contact with the product.	

Abbreviations:
ADR/RID – Road Transport of Dangerous Material/International Carriage of Dangerous Goods by Rail.
AGW – Time-weighted Average Concentration
EC – European Commission
CLP – Classification, Labelling and Packaging
IATA-DGR – International Air Transport Association-Dangerous Goods Regulations
ICAO-TI – International Civil Aviation Organization-Technical Instructions
IMO – International Maritime Organization
LD – Lethal Dose
NBP – N-Butyl-2-pyrrolidone
OEL – Occupational Exposure Limits
PBT – Persistent Bioaccumulative Toxic
PEL – Permissible Exposure Limits
STEL – Short Term Exposure Limit
STOT – Specific target organ toxicity
TLV – Threshold Limit Value
TWA – Time-Weighted Average

Safety Data Sheet

In accordance with Regulation (EU) 2020/878

Revision date: 16.06.2023 version 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING	
Product name	HOT FIREPol® EvaGreen® HRM Mix (no ROX), 5x
Catalog number	08-31-0000S, 08-31-00001, 08-31-00001-5, 08-31-00001-10, 08-31-00020
REACH registration number	Not applicable
ECHA registration number (EC-No)	Not applicable
Unique formula identifire (UFI) code	Not applicable
Recommended use of the chemical and uses advised against	This product is for Research Use Only. Not for consumer use.
Manufacturer/Supplier	Solis BioDyne OÜ Teaduspargi 9, 50411 Tartu, Estonia info@solisbiodyne.com Tel. +372 740 9960, Fax. +372 740 2079
Information in case of emergency	Solis BioDyne Tel. +372 740 9960 EU Emergency Service Tel 112 Estonian Poison Center +372 794 3794

2. HAZARDS IDENTIFICATION	
Classificaton of the substance or mixture	Classification according to Regulation (EC) No 1272/2008
Physical hazards	Not hazardous
Health hazards	Not hazardous
Environmental hazards	Not hazardous
Explosion hazards	Not hazardous
Additional hazards	This mixture does not contain any substances that are assessed to be a PBT or a vPvB The mixture does not contain any nanoforms
Label elements	Labelling according to Regulation (EC) No 1272/2008 [CLP]
Pictograms	None
Signal word	None
Hazard statements	Not applicable
EU Specific Hazard Statements	Not applicable
Precautionary Statements	
Prevention	Not applicable
Response	Not applicable
Storage	Routine storage at -28ºC to -18ºC until the end of shelf-life (Expiry Date marking on the package). Keep/store only in original/labeled container. Transport conditions in section 14
Disposal	Prevent product from entering drains. Do not allow material to contaminate ground water system
Other Hazards	No endocrine disruptors information is available

3. COMPOSITION/ INFORMATION ON INGREDIENTS
3.1 Substances Hazardous/Non-hazardous Components:
3.2 Mixtures Hazardous/Non-hazardous Components:

Component	CAS-No.	EC-No.	REACH reg No	Conc % (w/w)	Classification according to Regulation (EC) No 1272/2008 (CLP)		
					Pictogram, signal word code (s)	Hazard class and category code (s)	Hazard statement code (s)
H_2O	7732-18-5	231-791-2	-	<90	-	-	-
Glycerol	56-81-5	200-289-5	01211947198718-XXXX	<9	-	-	-
$MgCl_2$	7791-18-6	232-094-6	-	<1	-	-	-
HOT FIREPol® DNA Polymerase	N/A	N/A	-	<0.1	-	-	-
dGTP	2564-35-4	219-887-2	-	<0.1	-	-	-
dCTP	2056-98-6	218-153-9	-	<0.1	-	-	-
dATP	1927-31-7	217-662-3	-	<0.1	-	-	-
dTTP	365-08-2	206-669-7	-	<0.1	-	-	-
EvaGreen® dye	N/A	N/A	-	<0.1	-	-	-
BSA	9048-46-8	232-936-2	-	<0.1	-	-	-

The product contains no substances which at their given concentration, are considered to be hazardous to health.
We recommend handling all chemicals with caution.
There are no additional ingredients (incl nanoforms) present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment.

4. FIRST-AID MEASURES

Skin contact	Wash off with plenty of water. Immediate medical attention is not required.
Eye contact	Rinse opened eye immediately with plenty of water. Remove contact lenses if present. If irritation persists, get medical attention.
Inhalation	Move to fresh air. Consult a physician if necessary.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Consult a physician if necessary.
Most important symptoms and effects, both acute and delayed	No information available
Indication of any immediate medical attention and special treatment needed	None
Notes to physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, CO_2, water spary or alcohol resistant foam.
Unsuitable extinguishing media	No information available
Fire/Explosion hazards	Not applicable
Protective equipment and precautions for fire-fighters	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment. Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	Use personal protection recommended in Section 8.

Environmental precautions	Do not allow to enter surface/ sewers or ground water. Prevent further leakage or spillage if safe to do so. See section 12 for additional information.
Methods and material for containment and cleaning up	Soak up with inert absorbent material

7. HANDLING AND STORAGE

Precautions for safe handling	Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment
Conditions for safe storage, including any incompatibilities	Store at -20ºC. Keep/store only in original container. Transport conditions in section 14
Specific uses	For Research Use Only

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits		
Chemical Name	**Country**	**Limits**
Glycerol 56-81-5	Belgium (TWA)	10 mg/m^3
	Czech Republic	10 mg/m^3 TWA 15 mg/m^3 Ceiling
	France OEL (TLV)	10 mg/m^3
	Germany OEL (TWA)	200 mg/m^3 exposure factor 2
	Poland	10 mg/m^3 TWA
	Portugal	10 mg/m^3 TWA
	Spain OEL (TWA)	10 mg/m^3
	Switzerland	100 mg/m^3 STEL 50 mg/m^3 TWA
	United Kingdom	10 mg/m^3 TWA (mist)
	USA	15 mg/m^3 (total dust) 5 mg/m^3 (respirable)
Engineering measures	Showers. Eyewash stations. Ensure adequate ventilation.	
Personal protective equipment:		
Respiratory protection	Not required. Use in well ventilated areas.	
Skin and body protection	Wear suitable protective clothing and gloves	
Eye and face protection	Wear safety glasses with side shields (or goggles)	
Protection of hands	Check protective gloves prior to each use for their proper condition. Material of gloves: Nitrile rubber, NBP	
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice	
Environmental exposure controls	Prevent product from entering drains. Do not allow material to contaminate ground water system	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Colour	Colorless
Odour	Not defined
pH value	7.0-9.0. Contact info@solisbiodyne.com for specific information
Melting/freezing point	No data available
Boiling point/ boiling range	No data available
Flammability	No data available
Lower and upper explosion limit	No data available
Flash point	No data available
Autoignition temperature	No data available

Decomposition temperature	No data available
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient n-octanol/water	No data available
Vapor pressure	No data available
Density and/or relative density	No data available
Relative vapor density	No data available
Decomposition temperature	No data available
Particle characteristics	No data available
Information with regard to physical hazard classes	Not hazardous
Other safety characteristics	No information available

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	Hazardous reaction has not been reported
Conditions to avoid	No information available
Incompatible materials	Strong oxidizing agents, acids and alkali
Hazardous decomposition products	No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity	There is no evidence available indicating acute toxicity		
Chemical Name	**Oral LD50**	**Dermal LD50**	**Inhalation LC50**
Glycerol 56-81-5	= 12600 mg/kg Oral	> 10 g/kg(Rabbit)	>2.75mg/L(Rat)
Skin corrosion/irritation	May cause skin irritation		
Serious eye damage/irritation	May cause eye irritation		
Sensitization:			
Respiratory	Material may be irritating to mucous membranes and upper respiratory tract		
Skin	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals		
Germ cell mutagenicity	No data available		
Carcinogenicity	No data available		
Reproductive toxicity	No data available		
STOT-single exposure	No data available		
STOT-repeated exposure	No data available		
Aspiration hazard	No data available		
Endocrine disrupting properties	No data available		
Information on other hazards	No data available		

12. ECOLOGICAL INFORMATION

Marine pollutant	No data available
Ecotoxicity	No data available. Prevent product from entering drains. Do not allow material to contaminate ground water system.
Mobility	No data available
Persistence and degradability	No data available
Bioaccumulation	No data available
Endocrine disrupting properties	No data available
Othe adverse effects	No data available

13. DISPOSAL CONSIDERATIONS	
Waste handling and disposal	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.
Information regarding the disposal of the packaging	Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique
Physical/chemical properties that may affect waste treatment options shall be specified	No special
Sewage disposal	Do not empty into drains. Do not dispose of waste into sewer
Special precautions for any recommended waste treatment	Consider local regulations and safe disposal procedures

14. TRANSPORT INFORMATION	
UN number:	
UN proper shipping name	Not applicable
Transport hazard class (es):	
Packing group	Not applicable
Environmental hazards	Not hazardous goods
Special precautions for user	Handle in accordance with good industrial hygiene and safety practice
Land transport ADR/RID (cross-border):	
ADR/RID class	Not regulated
Air transport ICAO-TI and IATA-DGR:	
ICAO/IATA class	Not regulated
Additional information	This substance is considered to be non-hazardous for transport
Transport conditions	Transport at ambient temperature Routine storage after transport -28ºC to -18ºC
Maritime transport in bulk according to IMO instruments	Not regulated

15. REGULATORY INFORMATION		
Safety, health and environmetal regulations/legislation specific for the product	Safety, health and environmental regulations/legislation specific for the substance or mixture	None
	Substances of Very High Concern. EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances for Eventual Inclusion in Annex XIV	None
	Substance subject to authorisation per REACH Annex XIV	None
	Restricted substances under EC 1907/2006, Annex XVII	None
	Regulation (EC) No 649/2012 (Rotterdam Convention - export/import of dangerous chemicals)	None
	Regulation(EU)No2019/1021 (Stockholm Convention persistent organic pollutants)	None
	EU - Substances Depleting the Ozone layer (1005/2009)	None
	German Water hazard classes (Wassergefährdungsklassen)	Glycerol 56-81-5 (hazard class 1 - slightly hazardous to water)
Components of animal origin	Regulation (EC) No 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules as regards animal by-products and	Fish gelatin

	derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation)	BSA
Chemical safety assessment	No Chemical safety assessment has been carried out	

16. OTHER INFORMATION	
Prepared by	Solis BioDyne / Technology specialist
Reason for revision	Revised according (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 (REACH)
Revision number	3
Revision date	16.06.2023
SDS is valid 3 years from revision date. Contact info@solisbiodyne.com for latest revision.	
Last changes	Added UFI, endocrine disruptors and nanforms information and formal changes in all sections except 4, 5, 6 and 10.
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 and (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006	
IMPORTANT: The information in this SDS is provided in good faith based on our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties or merchantability or fitness for a particular purpose. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable governmental requirements. Since conditions of use of the product are not under the control of Solis BioDyne it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. Solis BioDyne will not be liable for any damages resulting from handling or contact with the product.	
Abbreviations: ADR/RID – Road Transport of Dangerous Material/International Carriage of Dangerous Goods by Rail. AGW – Time-weighted Average Concentration EC – European Commission CLP – Classification, Labelling and Packaging IATA-DGR – International Air Transport Association-Dangerous Goods Regulations ICAO-TI – International Civil Aviation Organization-Technical Instructions IMO – International Maritime Organization LD – Lethal Dose NBP – N-Butyl-2-pyrrolidone OEL – Occupational Exposure Limits PBT – Persistent Bioaccumulative Toxic PEL – Permissible Exposure Limits STEL – Short Term Exposure Limit STOT – Specific target organ toxicity TLV – Threshold Limit Value TWA – Time-Weighted Average	