

Material Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Identification of the substance/preparation

Product code B21202, B21203
Product name 2x SYBR Green qPCR Master Mix

Company/Undertaking Identification

Biotoool LLC
2626 South Loop
West, Suite 175,
Houston, TX 77054
(713) 732-2181

Biotoool LLC
Karl-Schmid-Str. 14,
81829 Munich, Germany
+49-89-46148500

24 hour Emergency Response: (713) 732-2181
+49-89-46148500

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

2. Hazards identification

GHS - Classification

Signal Word
WARNING

Health Hazard

Skin Corrosion/Irritation	Category 3
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Physical Hazards

not hazardous

Hazard statements

H316 - Causes mild skin irritation

Precautionary statements

P332 + P313 - If skin irritation occurs: Get medical advice/attention
P264 - Wash hands thoroughly after handling
P262 - Do not get in eyes, on skin, or on clothing



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**Principle Routes of Exposure/
Potential Health effects**

Eyes May cause eye irritation with susceptible persons.
Skin Components of the product may be absorbed into the body through the skin. May cause skin irritation in susceptible persons.
Inhalation Irritating to respiratory system.
Ingestion May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea.

Specific effects

Carcinogenic effects none
Mutagenic effects Sybr Green I Gel Stain is classified by the European Union as a mutagen of category 3 Mutation Data: Histidine reverse gene mutation, Ames assay, Salmonella typhimurium (TA102), positive with metabolic activation; Histidine reverse gene mutation, Ames assay, Salmonella typhimurium (TA98, TA102), positive without metabolic activation.
Reproductive toxicity none
Sensitization none
Target Organ Effects None under normal use conditions

HMIS

Health	1
Flammability	0
Reactivity	0

3. Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
Dimethyl Sulfoxide	67-68-5	200-664-3	7-13
TRIS Base	77-86-1	201-064-4	1-5
sodium azide	26628-22-8	247-852-1	<0.1
SYBR Green I dye	163795-75-3	-	<0.1

Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. We recommend handling all chemicals with caution.

4. First aid measures

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.
Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Ingestion Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.
Inhalation Move to fresh air. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.
Notes to physician Treat symptomatically.

5. Fire-fighting measures



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Suitable extinguishing media
Special protective equipment for firefighters

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.
Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

Personal precautions Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.
Methods for cleaning up Soak up with inert absorbent material.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

See Section 12 for additional information.

7. Handling and storage

Handling Always wear recommended Personal Protective Equipment. No special handling advice required.
Storage Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

8. Exposure controls/personal protection

Exposure limits

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Dimethyl Sulfoxide	none	none	none	none
TRIS Base	none	none	none	none
sodium azide	none	none	none	none
SYBR Green I dye	none	none	none	none

Engineering measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection Impervious gloves.

Eye protection Safety glasses with side-shields.

Skin and body protection. Lightweight protective clothing.

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

General Information

Form liquid



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Appearance	No information available	
Odor	No information available	
Boiling Point/Range	°C no data available	°F no data available
Melting point/range	°C no data available	°F no data available
Flash point	°C no data available	°F no data available
Autoignition temperature	°C no data available	°F no data available
Oxidizing properties	No information available.	
Water solubility	soluble	

10. Stability and reactivity

Stability	Stable under normal conditions.
Materials to avoid	Sodium azide may react with lead and copper plumbing to form highly explosive metal azides.
Hazardous decomposition products	No information available.
polymerization	None under normal processing.

11. Toxicological information

Acute toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Dimethyl Sulfoxide	= 14500 mg/kg (Rat)	no data available	no data available
TRIS Base	= 5900 mg/kg (Rat)	no data available	no data available
sodium azide	= 27 mg/kg Oral LD50	no data available	no data available
SYBR Green I dye	no data available	no data available	no data available

Principle Routes of Exposure/

Potential Health effects

Eyes	May cause eye irritation with susceptible persons.
Skin	Components of the product may be absorbed into the body through the skin May cause skin irritation in susceptible persons.
Inhalation	Irritating to respiratory system.
Ingestion	May be harmful if swallowed Ingestion may cause gastrointestinal irritation, nausea.
Carcinogenic effects	none
Mutagenic effects	Sybr Green I Gel Stain is classified by the European Union as a mutagen of category 3 Mutation Data: Histidine reverse gene mutation, Ames assay, Salmonella typhimurium (TA102), positive with metabolic activation; Histidine reverse gene mutation, Ames assay, Salmonella typhimurium (TA98, TA102), positive without metabolic activation.
Reproductive toxicity	none
Sensitization	none
Target Organ Effects	None under normal use conditions

12. Ecological information

Ecotoxicity effects	No information available.
Mobility	No information available.



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Biodegradation No information available.
Bioaccumulation No information available.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
Dimethyl Sulfoxide 67-68-5	Skeletonema costatum EC5012350 - 25500 mg/L (96 h)	Daphnia species EC50=7000 mg/L (24 h)			logPow-2.03

13. Disposal considerations

Dispose of in accordance with local regulations.

14. Transport information

IATA

Proper shipping name Not classified as dangerous in the meaning of transport regulations
Hazard class none
Subsidiary Class none
Packing group none
UN-No none

15. Regulatory information

Component	TSCA
Dimethyl Sulfoxide 67-68-5 (7-13)	Listed
TRIS Base 77-86-1 (1-5)	Listed
sodium azide 26628-22-8 (<0.1)	Listed
SYBR Green I dye 163795-75-3 (<0.1)	-

U.S. Federal Regulations

SARA 313

This product is not regulated by SARA.

Chemical Name
sodium azide

CAS-No
26628-22-8

Weight %
<0.1

SARA 313 - Threshold Values
1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contains HAPs.



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U.S. State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
Dimethyl Sulfoxide	-	-	-	-	-
TRIS Base	-	-	-	-	-
sodium azide	Listed	-	Listed	-	Listed
SYBR Green I dye	-	-	-	-	-

California Proposition 65

This product does not contain chemicals listed under Proposition 65

WHMIS Hazard Class

D2B Toxic materials



This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. Other information

Reason for Revision (M)SDS sections updated.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

End of Safety Data Sheet



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