



# SAFETY DATA SHEET

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

### Identification of the substance/preparation

**Product code** S33102  
**Product name** SYBR Safe® DNA gel stain \*10,000X concentrate in DMSO\*

### Company/Undertaking Identification

Life Technologies  
5791 VAN ALLEN WAY  
PO BOX 6482  
CARLSBAD, CA 92008  
+1 760 603 7200

INVITROGEN CORPORATION  
5250 MAINWAY DRIVE  
BURLINGTON, ONT  
CANADA L7L 6A4  
800/263-6236

### **24 hour Emergency Response:**

866-536-0631  
301-431-8585  
Outside of the U.S. +1-301-431-8585

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

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## 2. Hazards identification

### GHS - Classification

#### Signal Word

**WARNING**



#### Health Hazard

Skin Corrosion/Irritation	Category 3
Serious Eye Damage/Eye Irritation	Category 2B
Specific target organ systemic toxicity (single exposure)	Category 3

#### Physical Hazards

H227 - Combustible liquid

GHS Physical Hazard 1	Flammable liquids
GHS Physical Hazard Category Number	Category 4

#### Hazard statements

H316 - Causes mild skin irritation

H320 - Causes eye irritation

H335 - May cause respiratory irritation

#### Precautionary statements

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P264 - Wash hands thoroughly after handling

#### Principle Routes of Exposure/

##### Potential Health effects

###### **Eyes**

Irritating to eyes.

###### **Skin**

Components of the product may be absorbed into the body through the skin. Mild skin irritation.

###### **Inhalation**

May cause irritation of respiratory tract.

###### **Ingestion**

May be harmful if swallowed.

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### Specific effects

<b>Carcinogenic effects</b>	not applicable
<b>Mutagenic effects</b>	In vivo tests did not show mutagenic effects. In vitro tests have shown mutagenic effects.
<b>Reproductive toxicity</b>	not applicable
<b>Sensitization</b>	not applicable
<b>Target Organ Effects</b>	No known effects under normal use conditions.

### HMIS

Health	2
Flammability	2
Reactivity	0

### 3. Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
dimethylsulfoxide	67-68-5	200-664-3	60-100
SYBR® Safe stain	NOT FOUND	-	0.1-1.0

We recommend handling all chemicals with caution.

### 4. First aid measures

<b>Skin contact</b>	Wash off immediately with plenty of water. If symptoms arise, call a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.
<b>Notes to physician</b>	Treat symptomatically.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical.
<b>Special protective equipment for firefighters</b>	Wear self-contained breathing apparatus and protective suit.

### 6. Accidental release measures

<b>Personal precautions</b>	Use personal protective equipment.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material.

### Environmental precautions

Prevent further leakage or spillage if safe to do so.

See Section 12 for additional information.

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## 7. Handling and storage

**Handling** Avoid contact with skin and eyes. Always wear recommended Personal Protective Equipment.

**Storage** 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)
dimethylsulfoxide	none	none	none	none
SYBR® Safe stain	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 butyl rubber gloves. Nitrile gloves are not recommended. Some brands of Nitrile gloves have breakthrough times of five minutes.

**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.

## 9. Physical and chemical properties

### General Information

<b>Form</b>	liquid	
<b>Appearance</b>	No information available	
<b>Odor</b>	No information available	
<b>Boiling Point/Range</b>	°C 189	°F 372
<b>Melting point/range</b>	°C 18.4	°F 65
<b>Flash point</b>	°C 94	°F 201
<b>Autoignition temperature</b>	°C no data available	°F no data available
<b>Oxidizing properties</b>	No information available.	
<b>Water solubility</b>	soluble	

## 10. Stability and reactivity

**Stability** Stable under normal conditions.

**Materials to avoid** No information available.

**Hazardous decomposition products** No information available.

**polymerization** Hazardous polymerisation does not occur.

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## 11. Toxicological information

### Acute toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
dimethylsulfoxide	14500 mg/kg Oral LD50	no data available	no data available
SYBR® Safe stain	no data available	no data available	no data available

### Principle Routes of Exposure/ Potential Health effects

<b>Eyes</b>	Irritating to eyes.
<b>Skin</b>	Components of the product may be absorbed into the body through the skin Mild skin irritation.
<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Carcinogenic effects</b>	No information available.
<b>Mutagenic effects</b>	In vivo tests did not show mutagenic effects. In vitro tests have shown mutagenic effects.
<b>Reproductive toxicity</b>	No information available.
<b>Sensitization</b>	No information available.

## 12. Ecological information

<b>Ecotoxicity effects</b>	Daphnia magna (Water flea)
<b>Mobility</b>	Completely soluble
<b>Biodegradation</b>	Inherently biodegradable
<b>Bioaccumulation</b>	Does not bioaccumulate.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
dimethylsulfoxide 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  
 SYBR Safe DNA gel stain is not classified as hazardous waste under U.S. Federal regulations (Resource Conservation and Recovery Act (RCRA)). SYBR Safe stain meets the requirements of the U.S. Clean Water Act and the U.S. National Pollutant Discharge Elimination System (NPDES) regulations.

## 14. Transport information

### IATA

<b>Proper shipping name</b>	Not classified as dangerous in the meaning of transport regulations
<b>Hazard class</b>	none

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**Subsidiary Class** none  
**Packing group** none  
**UN-No** none

15. Regulatory information

Component	TSCA
dimethylsulfoxide 67-68-5 ( 60-100 )	Listed
SYBR® Safe stain NOT FOUND ( 0.1-1.0 )	-

**U.S. Federal Regulations**

**SARA 313**

This product is not regulated by SARA.

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

This product does not contains HAPs.

**U.S. State Regulations**

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
dimethylsulfoxide	-	-	-	-	-
SYBR® Safe stain	-	-	-	-	-

**California Proposition 65**

This product does not contain chemicals listed under Proposition 65

**WHMIS Hazard Class**

D2B Toxic materials  
B3 Combustible liquid



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.

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**References**

• <https://products.invitrogen.com/ivgn/product/S33102?ICID=search-s33102>

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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