

Safety Data Sheet

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

Identification of the substance or mixture

Product code S33102
Product name SYBR Safe® DNA gel stain

Company/undertaking identification

Life Technologies Corporation
5781 Van Allen Way
PO Box 6482
Carlsbad, CA 92008
+1 760 603 7200

Life Technologies
5250 Mainway Drive
Burlington, ONT
CANADA L7L 6A4
800/263-6236

24 hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident. Spill, Leak, Fire, Exposure, or Accident. Call CHEMTREC Within the USA + Canada: 1-800-424-9300 and 1-703-527-3887
Outside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word
WARNING

Hazard pictograms

None

Health hazards
Not Hazardous

Physical hazards

| | |
|-------------------------------------|-------------------|
| GHS Physical Hazard | Flammable liquids |
| GHS Physical Hazard Category Number | Category 4 |

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Environmental hazards

Not Hazardous

Hazard Statements

H227 - Combustible liquid

Precautionary Statements**Prevention**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

Storage

P403 - Store in a well-ventilated place

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards

Not Applicable

HMIS

| | |
|--------------|---|
| Health | 1 |
| Flammability | 2 |
| Reactivity | 0 |

SECTION 3: Composition/information on ingredients

| Chemical Name | CAS No. | Common name | EC No. | Weight-% |
|-------------------|---------|----------------|-----------|----------|
| dimethylsulfoxide | 67-68-5 | Not applicable | 200-664-3 | 95-100 |
| SYBR® Safe 98 | NONE | Not applicable | - | 0.1-1 |

We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Description of first aid measures

| | |
|---------------------------|---|
| Skin contact | Rinse skin with water. Immediate medical attention is not required. |
| Eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Ingestion | Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice. |
| Inhalation | Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary. |
| Notes to Physician | Treat symptomatically. |

Most important symptoms and effects, both acute and delayed

H227 - Combustible liquid

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

| | |
|---------------------------------------|---|
| Suitable extinguishing media | Water spray. Carbon dioxide (CO ₂). Foam. Dry chemical. |
| Unsuitable extinguishing media | No information available. |

Special hazards arising from the substance or mixture

Advice for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area)

Use personal protection equipment

See section 8 for more information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

| Chemical Name | OSHA PEL | OSHA PEL (Ceiling) | ACGIH OEL (TWA) | ACGIH OEL (STEL) |
|-------------------|----------|--------------------|-----------------|------------------|
| dimethylsulfoxide | None | None | None | None |
| SYBR® Safe 98 | None | None | None | None |

| Chemical Name | Brazil - OEL - TWAs (LTs) | Brazil - OEL - Ceilings | Brazil - OEL - Skin Designations |
|-------------------|---------------------------|-------------------------|----------------------------------|
| dimethylsulfoxide | None | None | None |
| SYBR® Safe 98 | None | None | None |

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection

In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles.

Skin and Body Protection

Wear suitable protective clothing.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | | |
|---|--------------|------------------|
| Physical state | Solution | |
| Color | No data | |
| Odor | No data | |
| Molecular Weight | No data | |
| Melting point / melting range | °C 18 - 19 | °F 64.4 - 66.2 |
| Boiling point / boiling range | °C 188 - 190 | °F 370 - 374 |
| Flammability (solid, gas) | No data | |
| Lower explosion limit | 2.4% - 2.8% | |
| Upper explosion limit | 61% - 64% | |
| Flash point | °C 87 - 89 | °F 188.6 - 192.2 |
| Autoignition Temperature | °C 214 - 216 | °F 417.2 - 420.8 |
| Decomposition temperature | °C No data | °F No data |
| pH | 6-8 | |
| Evaporation rate | No data | |
| Viscosity | No data | |
| Solubility | No data | |
| Partition coefficient: n-octanol/water | No data | |
| Vapor Pressure | No data | |
| Specific gravity | No data | |
| Relative density | No data | |
| Vapor density | No data | |
| Explosive properties | No data | |
| Oxidizing properties | No data | |
| Particle characteristics | No data | |

Other information

Information with regard to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

| | |
|---|---|
| Reactivity | None known. |
| 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 acids. Strong oxidizing agents. |
| Hazardous decomposition products | No data available. |

SECTION 11: Toxicological information

Information on toxicological effects

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------|-----------------------|-------------------|-------------------|
| dimethylsulfoxide | 14500 mg/kg Oral LD50 | >40000 mg/kg bw | >5000 mg/l |
| SYBR® Safe 98 | No data available | No data available | No data available |

Principal Routes of Exposure

| | |
|--|--|
| Acute toxicity | Data are conclusive but insufficient for classification. |
| Skin corrosion/irritation | Mild skin irritant Mild eye irritation Components of the product may be absorbed into the body through the skin. |
| Serious eye damage/irritation | Data are conclusive but insufficient for classification |
| Respiratory or skin sensitization | Data are conclusive but insufficient for classification |
| Specific target organ toxicity (STOT) – single exposure | Data are conclusive but insufficient for classification |
| Specific target organ toxicity (STOT) – repeated exposure | Data are conclusive but insufficient for classification |
| Carcinogenicity | Data are conclusive but insufficient for classification |
| Germ cell mutagenicity | In vivo tests did not show mutagenic effects. In vitro tests have shown mutagenic effects. |
| Reproductive toxicity | Data are conclusive but insufficient for classification |
| Aspiration hazard | Data are conclusive but insufficient for classification |

SECTION 12: Ecological information

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

| Chemical Name | Toxicity to algae | Toxicity to daphnia and other aquatic invertebrates | Toxicity to fish | Microtox Data | log Pow |
|-------------------|-------------------|---|-------------------|-------------------|-------------------|
| dimethylsulfoxide | No data available | No data available | No data available | No data available | logPow-1.35 |
| SYBR® Safe 98 | No data available | No data available | No data available | No data available | No data available |

Mobility in soil No information available.

Persistence and degradability Inherently biodegradable.

Bioaccumulative potential Material does not bioaccumulate.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects No information available.

SECTION 13: Disposal considerations

Waste treatment methods

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.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not classified as dangerous in the meaning of transport regulations

| | |
|-----------------------------------|----------------|
| UN number or ID number | Not Applicable |
| UN proper shipping name | Not Applicable |
| Transport hazard class(es) | Not Applicable |
| Packing group | Not Applicable |

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable.

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SECTION 15: Regulatory information

| Component | US TSCA |
|---|---------|
| dimethylsulfoxide 67-68-5 (95-100) | Listed |
| SYBR® Safe 98 NONE (0.1-1) | - |

US 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 contain HAPs

US State Regulations

| Chemical Name | Massachusetts - RTK (Right-to-Know) | New Jersey - RTK (Right-to-Know) | Pennsylvania - RTK (Right-to-Know) |
|-------------------|--|-------------------------------------|---------------------------------------|
| dimethylsulfoxide | | Listed | |

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

B3 - Combustible liquid

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

| Chemical Name | CAS No. | Brazil - National Agency for Sanitary Surveillance (ANVISA) | Brazil - National List of Carcinogen Agents to Humans (LINACH) |
|-------------------|---------|---|--|
| dimethylsulfoxide | 67-68-5 | Not Listed | Not Listed |
| SYBR® Safe 98 | NONE | Not Listed | Not Listed |

SECTION 16: Other information

Reason for revision SDS sections updated.
Revision number 8
Revision date 03-Apr-2023

For research use only. Not for use in diagnostic procedures.

References

• ECHA: <http://echa.europa.eu/>

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- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

Abbreviations and acronyms

TWA - Time-Weighted Average

OELs - Occupational Exposure Limits

STEL - Short Term Exposure Limit

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

EPA - Environmental Protection Agency

OSHA - Occupational Safety and Health Administration of the US Department of Labor

IATA - International Air Transport Association

DOT - Department of Transportation

IMDG - International Maritime Dangerous Goods

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH - National Institute for Occupational Safety and Health

AIHA - American Industrial Hygiene Association

HMIS - Department of Defense Hazardous Materials Information System

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

"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 SDS 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