

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

### **1.1 Identification of the substance/preparation**

**Product name** : FluoroStain DNA Fluorescent Staining Dye

**Product code** : DS1000 / DS1001

**Recommended use** : For Research Use Only. Suitable for use as DNA stain for electrophoresis.

### **1.2 Company/Undertaking identification**

SMOBIO Technology, Inc.

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Taiwan(R.O.C.)

Tel : +886 3 5799292

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E-mail : [support@smobio.com](mailto:support@smobio.com)

### **1.3 Emergency telephone number**

**Emergency telephone** : +886 3 5799292(09.00-18.00 TST)

## **2. Hazards identification**

### **2.1 Classification of the substance or mixture**

**GHS/GLP** : Classification to Regulation (EC) No 1272/2008

**DSD/DPD** : Classification to according to EU Directives 67/548/EC or 1999/45/EC

### **2.2 Label elements**

**Symbol(s)** : Void

**Signal Word** : **Warning!**

May cause eye, skin and respiratory tract irritation. Combustible liquid and vapor.

### **2.3 Other information**

**Hazards deriving from physical-chemical properties** : The data available do not support any physical or chemical hazard , but not flammable.

**Human health hazards** : May be irritating to eyes, respiratory system and skin.

\*Caution: Avoid inhalation, ingestion, and skin contacts.

**Environmental hazards** : The data available do not support any environmental hazard.

**3. Composition/information on ingredient****3.1 Ingredients**

<u>Chemical name</u>	<u>Concentration</u>	<u>EC No.</u>	<u>CAS No.</u>	<u>Classification</u>
Dimethyl sulfoxide	> 50 %	200-664-3	67-68-5	Xi ; R36/R37/R38

**3.2 Other components**

Components not listed here are not dangerous or their concentrations do not exceed the limits specified in the EU directive 1999/45/EC.

**3.3 Additional information**

For the wording of the listed risk phrases refer to section 16.

**4. First aid measures****4.1 General information**

No special measures required.

**4.2 Description of first aid measures**

**In case of ingestion :** Wash out mouth with water and give 100 - 200 ml of water to drink. Do NOT induce vomiting. If symptoms develop obtain medical attention.

**In case of inhalation :** Remove patient from exposure, keep warm and at rest. If symptoms develop obtain medical attention.

**In case of skin contact :** Wash off immediately with plenty of water. If symptoms develop obtain medical attention.

**In case of eye contact :** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms develop obtain medical attention.

**5. Fire fighting measures****5.1 Suitable extinguishing agents**

Water spray, Carbon dioxide(CO<sub>2</sub>), dry chemical powder or appropriate foam.

**5.2 Not suitable extinguishing agents**

None.

**5.3 Special exposure hazards from decomposition products**

Not thoroughly investigated.

**5.4 Protective equipment**

Wear self-contained breathing apparatus and protective clothing.

**6. Accidental release measures**

**6.1 Personal precautions**

Wear appropriate gloves (see Section 8), safety glasses to clean small releases/spillage.  
In case of vapor/aerosol formation, wear suitable respiratory protection means.

**6.2 Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.

**6.3 Methods for cleaning up**

Absorb spillages with liquid-binding material. Ventilate and wash the area after the spillage is completely removed.

**6.4 Additional information**

No dangerous substance are released.

**7. Handling and storage**

**7.1 Handling**

No further requirements. Use appropriate personal protection measures (see Section 8).  
Avoid any contact with the liquid. Avoid the formation of aerosols. Ventilate area.

**7.2 Storage**

Protected from light, store at 4°C. No other specific requirements relating to the preparation.

**8. Exposure controls/personal protection**

**8.1 Control parameters**

<u>Chemical name</u>	<u>CAS No.</u>		<u>Exposure limits</u>
Dimethyl sulfoxide	67-68-5	Germany	TWA:50ppm TWA:160mg/m <sup>3</sup>
		Finland	TWA:50ppm
		Denmark	TWA:50ppm TWA:160mg/m <sup>3</sup>
		Austria	TWA:50ppm TWA:160mg/m <sup>3</sup>
		Switzerland	TWA:50ppm TWA:160mg/m <sup>3</sup>

**8.2 Exposure controls**

**Engineering measures** : Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

**8.3 Personal protection**

**Respiratory protection** : No special measures required. In case of insufficient ventilation wear suitable respiratory equipment.

**Hand protection** : Wear rubber gloves. No special requirements to rubber.

**Eye protection** : Safety glasses (goggles) are recommended during ordinary operations with the preparation.

**Skin protection** : The usual precautionary measures accepted in research laboratories, e.g. protective clothes (gowns). No specific requirements.

## **9. Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

**Appearance:** Liquid.

**Color:** Orange.

**Odor:** No data available.

**pH-value at 25°C:** No data available.

**Boiling point:** 189°C.

**Flash Point:** 89°C.

**Flammability / autoflammability:** Not applicable..

**Explosive properties:** The preparation does not possess explosive properties.

**Oxidizing properties:** Not applicable.

**Vapor pressure:** Not applicable.

**Relative density at 20°C:** ~1.1 g/cm<sup>3</sup>.

**Solubility in/miscibility with water:** Fully miscible.

**Fat solubility:** Not applicable.

**Vapor density:** Not applicable.

**Evaporation rate:** Not applicable.

**Conductivity:** Not applicable.

**Viscosity:** Not applicable.

### **9.2 Other information**

No further relevant information available.

## **10. Stability and reactivity**

### **10.1 Stability**

Stable under normal temperature conditions.

### **10.2 Reactivity**

No information available.

### **10.3 Possibility of hazardous reactions**

No dangerous reactions known.

**10.4 Conditions to avoid**

No conditions which may cause dangerous reactions.

**10.5 Incompatible materials**

No in particular.

**10.6 Hazardous decomposition products**

No dangerous decomposition products known.

**11. Toxicological information****11.1 Information on toxicology effects****Acute toxicity:**

**Inhalation:** Aerosols may cause allergic type reactions in sensitized individuals.

**Ingestion:** Repeated ingestion or excessive dosage may cause irritation of the gastrointestinal tract.

**Skin and eye contact:** Generally, the product does not irritate the skin and eyes. Prolonged skin or eye contact may cause minor irritation.

**Chemical name**

Dimethyl sulfoxide

**LD50 Oral**

145000 mg/kg(Rat)

**LD50 Dermal**

40000 mg/kg(Rat)

**Chronic toxicity :** May cause injury to the liver and kidneys.

**12. Ecological information****12.1 Ecotoxicity**

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can make harmful or damaging effects on the environment.

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative potential**

No data available on bioaccumulation.

**12.4 Other adverse effects**

No data available.

**13. Disposal consideration**

<p><b>13.1 Waste treatment methods</b></p> <p><b>Waste from residues / unused products:</b> Dispose of in accordance with local regulations.</p> <p><b>Contaminated packaging:</b> Empty containers should be taken to an approved waste handling site for recycling or disposal.</p>									
<p><b>14. Transport information</b></p> <p><b>IMDG/IMO:</b> Non-hazardous for sea freight.</p> <p><b>RID:</b> Non-hazardous for rail transport.</p> <p><b>ARD:</b> Non-hazardous for road transport.</p> <p><b>ICAO/IATA:</b> Non-hazardous for air transport.</p>									
<p><b>15. Regulatory information</b></p> <p><b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b></p> <p>No information available.</p> <p><b>15.2 Chemical safety assessment</b></p> <p>No information available.</p> <p><b>15.3 Regulatory information</b></p> <p><b>US :</b></p> <p><b>Labelling according to US Regulations:</b> Caution: Avoid contact and inhalation.</p> <p><b>US Regulatory information:</b> SARA LISTED: No.</p> <p><b>EU :</b></p> <p><b>Labelling according to EU Guidelines:</b> The preparation is not dangerous within the meaning of Directives 67/548/EC, 1999/45/EC, and is not labelled with danger symbols or indications of danger.</p> <p><b>Canada :</b></p> <p><b>WHMIS classification:</b> This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.</p> <p><b>DSL:</b> No.</p> <p><b>NDSL:</b> No.</p>									
<p><b>16. Other information</b></p> <p><b>16.1 Full text of R-phrases referred to under sections 3</b></p> <p>R36/37/38 - Irritating to eyes, respiratory system and skin</p> <p><b>16.2 Hazard Ratings</b></p> <table border="1"> <tr> <td></td> <td>Health Hazard</td> <td>Fire Hazard</td> <td>Instability</td> <td>Special Hazard</td> </tr> </table>						Health Hazard	Fire Hazard	Instability	Special Hazard
	Health Hazard	Fire Hazard	Instability	Special Hazard					



# SAFETY DATA SHEET

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NFPA	2	2	0	0
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Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

NFPA Label colored diamond code: Blue - Health; Red - Flammability; Yellow - Instability; White - Special Hazards

	Health Hazard	Flammability	Physical Hazard	Personal Protection
HMIS	2	2	0	B

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe \*- Chronic Health Effect

Personal Protection codes: B - Safety Glasses, Gloves

HMIS Label colored bar code: Blue - Health; Red - Flammability; Orange - Physical Hazards; White - Special

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The company shall not be held liable for any damage resulting from handling or from contact with the above product.