

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

### **SECTION 1 Identification of the Substance/Mixture and of the Company/Undertaking**

#### **1.1. Product identifier**

Product Names: Dimethyl Sulfoxide; Molecular Biology Grade  
Product Options: Nuclease-free, Protease-free, Highly Pure, Dehydrated  
Product Codes: DMS-001-500ML, DMS-001-100ML

#### **1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Laboratory chemicals, Manufacture of substances

#### **1.3. Details of the supplier of the safety data sheet**

Company: Serana Europe GmbH  
Dorfstrasse 17A  
14641 Pessin  
Germany  
Phone: +49 (0)332 3785 9253  
E-Mail: [info@serana-europe.com](mailto:info@serana-europe.com)

#### **1.4. Emergency telephone number**

Emergency Phone: Regular Office Hours +49 (0)332 3785 9253

### **SECTION 2 Hazards Identification**

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

The product is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.

#### **2.2. Label elements**

##### **CLP Regulation (EC) No 1272/2008:**

According to EC directives or the corresponding national regulations the product does not have to be labelled.

#### **2.3. Other hazards**

Not applicable

**Safety Data Sheet**

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

**SECTION 3 Composition/Information on Ingredients****3.1. Substances**

Substance name	Dimethyl Sulfoxide
Molecular formula	(CH <sub>3</sub> ) <sub>2</sub> SO
Molecular weight	78.14 g/mol
Cas Nr.	67-68-5
REACH registration Nr.	Not yet communicated down the supply chain.
EINECS Nr.	200-664-3

**3.2. Mixtures**

Not applicable

**SECTION 4 First Aid Measures****4.1. Description of first aid measures**

When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

**If inhaled**

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

**In case of skin contact**

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

**In case of eye contact**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

**If swallowed**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Give nothing to eat or drink.

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

**4.2. Most important symptoms and effects, both acute and delayed**

No data available.

**4.3. Indication of any immediate medical attention and special treatment needed**

No data available.

**4.4. Self-protection of the first aider**

First aider: Pay attention to self-protection!

**4.5. Information to physician**

No data available.

### **SECTION 5 Firefighting Measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder.

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

**5.2. Special hazards arising from the substance or mixture**

In case of fire may be liberated:

Carbon monoxide

Carbon dioxide (CO<sub>2</sub>)

Sulphur oxides

Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire

**5.3. Advice for firefighters**

DO NOT fight fire when fire reaches explosives.

Special protective equipment for firefighters: Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional**

**information**

Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

explosion and combustion gases. Use water spray jet to protect personnel and to cool endangered containers. In case of fire: Evacuate area.

### **SECTION 6 Accidental Release Measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Avoid breathing vapours, mist or gas. For personal protection see section 8. In case of major fire and large quantities: Remove persons to safety.

#### **6.2. Environmental precautions**

Do not let the product enter drains.

#### **6.3. Methods and materials for containment and cleaning up**

Spilled product must never be returned to the original container for recycling. Collect in closed and suitable containers for disposal.

#### **6.4. Reference to other sections**

For disposal see section 13.

### **SECTION 7 Handling and Storage**

#### **7.1. Precautions for safe handling**

Avoid: Inhalation Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Protect from moisture.

#### **7.2. Conditions for safe storage, including any incompatibilities**

Recommended storage temperature: 10-25°C

Storage class: 10-13

Keep the container tightly closed and in a well-ventilated place.

#### **7.3. Specific end uses**

No Data available.

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

### **SECTION 8 Exposure Controls/Personal Protection**

#### **8.1. Control parameters**

There are no occupational exposure limits for the substances contained in this product.

#### **8.2. Exposure controls**

##### **8.2.1. Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

##### **8.2.2. Individual protection measures**

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

#### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

- Breakthrough time (maximum wearing time): > 480 min

#### **Body protection**

Impervious clothing. Arms and legs have to be covered and appropriate footwear is obligatory. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds.

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

### 8.2.3. Environmental expose controls

Do not let product enter drains.

## SECTION 9 Physical and Chemical Properties

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

Appearance:	Form: Clear liquid
Odour:	No data available.
Odour threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	18.5°C
Initial boiling point and boiling range:	189°C (1013 hPa)
Flash point:	87°C
Evaporation point:	No data available.
Flammability (solid, gas):	No data available.
Upper exposure limits:	63 % (v/v)
Lower exposure limits:	1.8 % (v/v)
Vapour pressure:	0.6 hPa (20 °C)
Vapour density:	2.7 (20 °C)
Relative density:	1.101 g/cm <sup>3</sup> (20 °C)
Solubilities (Water):	1,000 g/l (20 °C)
Solubilities (Ethanol):	No data available.
Partition coefficient: n-octanol/water:	-2.03 (20 °C)
Auto-ignition temperature:	300-302 °C
Decomposition temperature:	No data available.
Kinematic viscosity:	No data available.
Dynamic viscosity:	2.14 mPa*s (20 °C)
Explosive properties:	No data available.
Oxidising properties:	No data available.

### 9.2. Other safety information

Bulk density:	Not applicable
Refraction index:	1.4783 (589 nm; 20 °C)
Dissociation constant:	No data available.
Surface tension:	No data available.
Henry constant:	No data available.

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

### **SECTION 10 Stability and Reactivity**

**10.1. Reactivity**

No data available.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

No data available.

**10.4. Conditions to avoid**

No data available.

**10.5. Incompatible materials**

Avoid alkalis and strong bases and strong acids.

**10.6. Hazardous decomposition products**

Other decomposition products: No data available.

### **SECTION 11 Toxicological Information**

**11.1. Information on toxicological effects**

**Acute oral toxicity**

LD50: > 14500 mg/kg - Rat - (RTECS)

**Skin corrosion/irritation/toxicity**

LD50: > 40000 mg/kg - Rat - (RTECS)

**Serious eye damage/eye irritation**

Data not available.

**Respiratory or skin sensitization**

In case of skin contact: not sensitising

After inhalation: not sensitising

**Germ cell mutagenicity**

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

No data available.

### **Carcinogenicity**

No indication of human carcinogenicity.

### **Reproductive toxicity**

No data available.

### **Germ cell mutagenicity**

No indications of human germ cell mutagenicity exist.

### **Specific target organ toxicity – single exposure**

Data not available.

### **Specific target organ toxicity – repeated exposure**

No data available.

### **Aspiration hazard**

No data available.

### **Potential health effects**

May be harmful if swallowed.

### **Additional Information**

No data available.

## **SECTION 12 Ecological Information**

### **12.1. Toxicity**

**Fish toxicity:** LC50: 36200 mg/l (96 h) - Geiger, D.L., L.T. Brooke, and D.J. Call 1990. Acute Toxicities of Organic Chemicals to Fathead nMinnows (*Pimephales promelas*), Volume 5

**Daphnia toxicity:** LC50: 25000 mg/l (48 h) - Goto, T., and J. Hiromi 2003. Toxicity of 17alpha-Ethynylestradiol and Norethindrone, Constituents of an Oral Contraceptive Pill to the Swimming and Reproduction of Cladoceran *Daphnia magna*, with Special Reference to Their Synergetic Effect.

**Algae toxicity:** no data available.

**Bacteria toxicity:** no data available.



## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

### 12.2. Persistence and degradability

No data available.

### 12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water: -2.03 (20 °C)

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

No data available.

### 12.6. Other adverse effects

No data available.

## SECTION 13 Disposal Considerations

### 13.1. Waste treatment methods

#### Product

Dispose according to local legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: 160508.

#### Contaminated packaging

Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.

## SECTION 14 Transport Information

### 14.1. UN-number

ADR/RID: - IMDG: - IATA: -

### 14.2. UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

**14.3. Transport hazard class(es)**

ADR/RID: - IMDG: - IATA: -

**14.4. Packaging group**

ADR/RID: - IMDG: - IATA: -

**14.5. Environmental hazards**

ADR/RID: no IMDG Marine pollutant: no IATA: no

**14.6. Special precautions for user**

No data available.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No data available.

### **SECTION 15 Regulatory Information**

#### **EU legislation**

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)

- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)

- Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)

- Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

No data available.

**15.2. Chemical Safety Assessment**

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Version 1, Revision Date: 10-DEC-2024

Print Date: 10-DEC-2024

For this product a chemical safety assessment was not carried out.

### SECTION 16 Other Information

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 information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

a) Revised Version:

First Version, date of issue: 10-DEC-2024.

b) List of Abbreviations:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International air transport association

IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

vPvB: very persistent and very bioaccumulative

c) References:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

d) Methods for evaluation of mixtures according to Article 9 of Regulation (EC) No 1272/2008:

No data available.

e) List of hazard and precautionary statements:

If applicable, please see section 2.

f) Training advice:

General laboratory instructions are required. No special training advised.

- END OF SAFETY DATA SHEET -