

Safety Data Sheet

according to Regulation (EC) No. 1907/2006, Article 31



GENAXXON

b i o s c i e n c e

Product number : M6325

Product name :

Dimethyl sulfoxide p.A.

1. Identification of the substance/preparation and of the company

Product details

Product Name: Dimethyl sulfoxide p.A.

Catalogue-No.: M6325

Manufacturer /Supplier:

Genaxxon bioscience GmbH, Söflinger Str. 100, 89077 Ulm/Germany.
Tel.: +49 (0)731 3608 123

Further information available from:

Genaxxon bioscience GmbH, Söflinger Str. 100, 89077 Ulm/Germany.
Tel.: +49 (0)731 3608 123

Information in case of emergency:

Genaxxon bioscience GmbH, Söflinger Str. 100, 89077 Ulm/Germany.
Tel.: +49 (0)731 3608 123

MSDS-No: dms0_pa/1e

NOTE: If this product is a kit or supplied with more than one material, please refer to the MSDS for each component for hazard information.

Product Use:

This products are for laboratory research use only and are not intended for human or animal diagnostics, therapeutics or other clinical uses.

2. Hazardous identification

Hazard description: Not applicable

Information concerning particular hazards for human and environment: Not applicable

GHS label elements: Void

3. Composition/Information on ingredients

Chemical Characterisation

Description: Liquid

Synonyme: DMSO, Methyl sulfoxide

Formula: C₂H₆SO

Molecular Weight: 78.13 g/mol

Product name	CAS-No.	EC-No.	Index-No.	Classification	Concentration
Dimethyl sulfoxide p.A.	67-68-5	200-664-3	---	---	---

4. First Aid Measures

General advice

No special measures required.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician in case of complaints.

In case of eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a physician.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water and then drink plenty of water.. Consult a physician.

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5. Fire-fighting Measures

Suitable extinguishing media: use water spray, CO₂, alcohol-resistant foam, dry chemical or carbon dioxide.

Special risks: Specific Hazard(s): Emits toxic fumes under fire conditions: Sulphur Dioxide (SO₂), Carbon monoxide (CO), Carbon dioxide (CO₂), Sulphur oxides (SO_x).

Ambient fire may liberate hazardous vapours.

Special protective equipment for fire-fighters: Wear self contained breathing apparatus for fire-fighting if necessary.

Additional information: Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. Accidental release Measures

Personal precaution procedures to be followed in case of leak or spill

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid direct contact and wash spill site after material pick-up is complete.

Environmental precautions

Do not let product enter drains/surface or ground water.

Methods and materials for containment and cleaning up:

Absorb with liquid-binding material. Clean up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Additional information: None

7. Handling and storage

Precautions for safe handling:

Avoid contact with eyes, skin and clothing. Avoid formation of aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Information about fire – and explosion protection: Normal measures for preventive fire protection.

Conditions for safe storage:

Requirements to be met by storerooms and receptacles: Keep bottles well closed.

Information about storage in one common storage facility: Keep bottles well closed in a well ventilated place.

Further information about storage conditions: Keep tightly closed. Store at RT.

Recommended storage temperature: room temperature (15°C – 25°C)

Special requirements: None

Storage class: 10-13

8. Exposure controls/personal protection

Additional information about design of technical facilities: No further data.

Ingredients with limit values that require monitoring at the workplace: Not required.

Personal protective equipment

General protective and hygienic measures: Change contaminated clothing.

Respiratory protection:

For nuisance exposure use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEDk-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves 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.

Material of gloves

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material: >0.11mm

Value for the permeation: Level >480min.

Eye protection

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

Skin and body protection

Complete suit protection against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. Physical and chemical properties

Appearance

Form:	Fluid
Colour:	Colourless
Odeur:	None

Safety data

Change in conditions

Melting Point:	18.45°C
Boiling Point:	189°C
Sublimation:	not applicable

Flash Point:	95°C
Ignition temperature:	300°C
Danger of explosion:	Product does not present an explosion hazard

Lower Explosion limit	1.8 Vol %
Upper Explosion limit	63 Vol %

Vapour pressure at 20°C: 0.6 hPa

Density at 20°C: 1.1 g&cm3

Solubility in water:	1000g/L (20°C)
Organic solvents:	100.0%

pH at 20°C: no data available

10. Stability and Reactivity

Chemical stability:	Stable under recommended conditions
Conditions to avoid:	No decomposition if used according to specifications.
Materials to avoid:	Strong oxidizing agents.
Dangerous decomposition products:	No dangerous decomposition products known.
Hazardous decomposition products:	No dangerous decomposition products known.

11. Toxicological information

Acute Toxicity

LD50 (oral – rat): 14500mg/kg

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LD50 (dermal – rat): 14500mg/kg

Remarks: Behavioural: convulsions or effect on seizure threshold. Cyanosis.

LD50 (intraperitoneal – rat): >5g/kg

Remarks: Behavioural: convulsions or effect on seizure threshold. Cyanosis.

Skin corrosion/irritation: No irritant effect.

Serious eye damage/eye irritation: No irritating effect

Respiratory or skin sensitization: No irritant/sensitizing effect known.

Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

The substance is not subject to classification according to the latest version of the EU lists.

Germ cell mutagenicity: No data available

Carcinogenicity: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: No data available.

Specific target organ toxicity – single exposure: No data available

Reproductive toxicity: No data available.

Specific target organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information:

RTECS: DG615000

The product should be treated with usual precautions while handling chemicals.

12. Ecological Information

Toxicity: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: No data available

General notes: If handled accordingly no ecological problems are expected.

13. Disposal considerations

Product:

Recommendation: Chemicals must be disposed of in compliance with the respective national regulations. Observe all federal, state, and local environmental regulations.

Uncleaned/contaminated packaging: Dispose of as unused product.

Recommendation: Disposal must be made according to official regulations.

14. Transport information

Land transport ADR/RID (cross border)

ADR/RID class: Not dangerous goods.

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Maritime transport IMDG:

IMDG Class: Not dangerous goods.

Marine pollutant: No

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: Not dangerous goods.

15. Regulatory information

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Not hazardous according to Directive 67/548/EEC

The substance is not subject to classification according to EU lists and other sources of literature known to us.

National Regulations: Germany

Water hazard class: Water hazard class 1 (Self-assessment).

16. Other information

Text of H-code(s) and R-phrases mentioned in Section 3

None

Further 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. Genaxxon bioscience GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Disclaimer

This product is for R&D use only. Not for drug, household or other uses.

Abbreviation and Akronymes:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and labeling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)