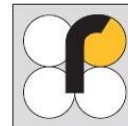


SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006
Version 03 Revision date: 11-06-2019
Print date: 11-6-2019

r-biopharm®



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

1.1. Product identifier

Product name SEM standard 100 ng/ml
Product code 5091SEMS

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

Identified uses Laboratory use

1.3. Details of the supplier of the safety data sheet

Company R-Biopharm Nederland B.V.
Beijerinckweg 18
6827 BN Arnhem
Netherlands
Telephone +31 (0)26-363-0364
Fax +31 (0)26-364-5111
E-mail address info@r-biopharm.nl

1.4. Emergency telephone number

Emergency phone # Please look for the emergency telephone number in your country before using this substance or mixture.

2. Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No 1272/2008)

Flammable liquid, 3, H226

STOT-SE, 1, H370

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label elements

Labelling (Regulation (EC) No 1272/2008)

Pictogram



GHS02

GHS08

Signal word Danger

Hazard statement(s)

H226 Flammable liquid and vapor.

H370 Causes damage to organs.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P280 Wear protective gloves/ protective clothing.

P308 + P310 IF exposed or concerned: immediately call a POISON CENTRE or doctor/physician.


Supplemental Hazard Statements None

2.3. Other hazards

None

3. Composition/information on ingredients

3.1. Dangerous ingredients

Chemical name	EC-No	CAS-No	Weight (%)	Classification (1272/2008/EC)	
Methanol	200-659-6	67-56-1	10%	Flam. Liq. 2 H225 Acute Tox. 3 H301 Acute Tox. 3 H331 Acute Tox. 3 H311 STOT SE 1 H370	

For the full text of the H-Statements mentioned in this Section, see Section 16.

For more detailed information on health effects and symptoms, see Section 11.

4. First aid measures

4.1. Description of first aid measures

General advice	First aider needs to protect himself. Consult a physician. Show this safety data sheet to the doctor in attendance.
Eye contact	Rinse out with plenty of water. Get medical attention immediately if symptoms occur.
Skin contact	Wash off with plenty of water. Remove contaminated clothing. Consult a physician.
Ingestion	Rinse mouth with water. Do NOT induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention (mention methanol ingestion).
Inhalation	Move person into fresh air. If not breathing, give artificial respiration. Immediately call in a physician.

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

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

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

Notes to physician	Treat symptomatically.
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5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use water, CO₂, dry chemical or foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Extinguishing media which must not be used for safety reasons

None known based on information supplied.

5.2. Special hazards arising from the substance or mixture

Development of hazardous combustion gases or vapors possible in the event of fire.

Fire may cause evolution of:

Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas, Sulphur oxides, Mercury vapors.

5.3. Advise for firefighters

Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid substance contact. Use personal protective equipment. Avoid breathing vapors, mist or gas. Keep away from heat and sources of ignition. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2. Environmental precautions

Should not be released into the environment. Do not let product enter drains.

6.3. Methods and materials for containment and cleaning up

Cover drains. Collect, bind and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4. Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. Handling and storage

7.1. Precautions for safe handling

Work under hood. Do not inhale substance/mixture. Handle in accordance with good industrial hygiene and safety practice. Observe label precautions. Keep away from open flames, hot surfaces and sources of ignition.

Avoid formation of aerosols. Avoid exposure - obtain special instructions before use.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Store at +2°C to +8°C (36°F to 46°F).

7.3. Specific end uses

No data available.

8. Exposure controls/personal protection

8.1. Control parameters

Chemical name	Type	Value*
Methanol (CAS 67-56-1)	TWA 8hr	133 mg/m ³
	STEL	325 mg/m ³

*(External MSDS)

8.2. Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Eye/face protection

Tightly fitting safety glasses

Skin/body protection

Protective/ impervious long sleeved clothing

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the related standard EN374.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the substance/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has to be checked prior to the application.

Penetration time:

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

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands after working with substance. Do not inhale substance.

Environmental Exposure controls

Should not be released into the environment. Do not let product enter drains.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Form: liquid
Color	Colorless
Odor	no data available
Odor threshold	no data available
pH	7.4 ± 0.05
Melting point/ freezing point	no data available
Initial boiling point/ boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability (solid, gas)	not applicable
Flammability limits in air	no data available
Vapor pressure	no data available
Relative density	no data available
Water solubility	Fully miscible
Partition coefficient: n-octanol/water	no data available

Autoignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	Product does not contain an explosion hazard
Oxidizing properties	no data available

9.2. Other safety information

No data available.

10. Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

In the event of fire: See chapter 5.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methanol	5628 mg/kg (Rat)* 1400 mg/kg (Human)*	Ca. 17100 mg/kg (Rabbit)*	4h 85.26 mg/l (Rat)*

*(External MSDS)

Skin corrosion/irritation

No data available.

Serious eye damage/irritation

No data available.

Respiratory or skin sensitization

Sensitization test: guinea pig (methanol)

Result: negative (IUCLID) (methanol)

Germ cell mutagenicity

No data available.

Carcinogenity

No data available.

Reproductive toxicity

Regarding the available data the classification criteria are not fulfilled.

Specific target organ toxicity – single exposure

Target organs: Eyes (methanol)

Causes damage to organs. (methanol)

Specific target organ toxicity – repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

12. Ecological information**12.1. Toxicity**

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Methanol (CAS 67-56-1)	96h EC50 Pseudokirchneriella subcapitata (green algae): ca. 22000 mg/l* 8d IC5 Scenedesmus quadricauda (green algae): 8000 mg/l*	200h NOEC Oryzias latipes (orange-red killifish): 7900 mg/l* 96h LC50 Lepomis macrochirus (Bluegill sunfish): 15400 mg/l*	16h EC5 Pseudomonas fluorescens: 6600 mg/l*	48h EC50 Daphnia magna (Water flea): >10000 mg/l* 72h EC5 E.sulcatum: >10000 mg/l*

*(External MSDS)

12.2. Persistence and degradability

(Methanol)

Biodegradability

99%; 30d

OECD Test Guideline 301D

Readily biodegradable.

Biochemical Oxygen Demand (BOD)

600 – 1120 mg/g (5d) (IUCLID)

Chemical Oxygen Demand (COD)

1420 mg/g (IUCLID)

Theoretical Oxygen Demand (ThOD)

1500 mg/g (Lit.)

Ratio BOD/ThBOD

BOD5 76%

Closed bottle test

12.3. Bioaccumulative potential

Chemical name	Log Pow
Methanol	-0,77

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.

13. Disposal considerations**13.1. Waste treatment methods**

**Waste from residues /
unused products**

Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information**14.1. UN/ID No**

ADR/RID: UN1992

IMDG: UN1992

IATA: UN1992

14.2. UN proper shipping name

ADR/RID: 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

IMDG: FLAMMABLE LIQUID, TOXIC, N.O.S. solution

IATA: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

14.3. Transport hazard class

ADR/RID: 3 (6.1)

IMDG: 3 (6.1)

IATA: 3 (6.1)

14.4. Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5. Environmental hazards

ADR/RID: -

IMDG Marine pollutant: -

IATA: -

14.6. Special precautions for user

No data available.

15. Regulatory information

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

No information available.

15.2. Chemical safety assessment

No information available.

16. Other information**Full text of H-statements referred to under Sections 2 and 3**

H225 – Highly flammable liquid and vapor.

H226 – Flammable liquid and vapor.

H301 – Toxic if swallowed.

H311 – Toxic in contact with skin.

H331 – Toxic if inhaled.

H370 – Causes damage to organs.

Revision note: New format.**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****Disclaimer**

The information provided in this safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
