

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.12.2015

Version number 5

Revision: 18.12.2015

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

### 1.1 Product identifier

**Trade name:** RIDA®17β-Estradiol Spiking solution

**Article number:** R2399S00

**CAS Number:**

67-56-1

**EC number:**

200-659-6

**Index number:**

603-001-00-X

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

No further relevant information available.

**Application of the substance / the preparation:** In vitro

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

**Manufacturer/Supplier:**

R-Biopharm AG

An der neuen Bergstraße 17

D-64297 Darmstadt

**Further information obtainable from:** FE e-mail: info@r-biopharm.de

**1.4 Emergency telephone number:** FE 0049-6151-8102-0

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 health hazard

STOT SE 1 H370 Causes damage to organs.

### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

**Hazard pictograms** GHS02, GHS06, GHS08

**Signal word** Danger

**Hazard-determining components of labelling:**

methanol

**Hazard statements**

H225 Highly flammable liquid and vapour.

H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.

H370 Causes damage to organs.

(Contd. on page 2)

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.12.2015

Version number 5

Revision: 18.12.2015

**Trade name: RIDA®17β-Estradiol Spiking solution**

(Contd. of page 1)

**Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.1 Chemical characterisation: Substances****CAS No. Description**

67-56-1 methanol

**Identification number(s)****EC number:** 200-659-6**Index number:** 603-001-00-X**SECTION 4: First aid measures****4.1 Description of first aid measures****General information:**

Immediately remove any clothing soiled by the product.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

**After inhalation:**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:** Do not induce vomiting; call for medical help immediately.**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

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

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

(Contd. on page 3)

GB

# Safety data sheet

## according to 1907/2006/EC, Article 31



Printing date 18.12.2015

Version number 5

Revision: 18.12.2015

**Trade name: RIDA®17β-Estradiol Spiking solution**

(Contd. of page 2)

### 5.3 Advice for firefighters

**Protective equipment:** Mouth respiratory protective device.

## SECTION 6: Accidental release measures

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

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

### 6.2 Environmental precautions:

Prevent seepage into sewage system, workpits and cellars.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

### 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.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

### Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

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

#### Storage:

**Requirements to be met by storerooms and receptacles:** Store in a cool location.

**Information about storage in one common storage facility:** Not required.

#### Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

### 7.3 Specific end use(s)

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

**Additional information about design of technical facilities:** No further data; see item 7.

### 8.1 Control parameters

#### Ingredients with limit values that require monitoring at the workplace:

#### 67-56-1 methanol

WEL Short-term value: 333 mg/m<sup>3</sup>, 250 ppmLong-term value: 266 mg/m<sup>3</sup>, 200 ppm

Sk

**Additional information:** The lists valid during the making were used as basis.

(Contd. on page 4)

# Safety data sheet

## according to 1907/2006/EC, Article 31



Printing date 18.12.2015

Version number 5

Revision: 18.12.2015

Trade name: RIDA®17β-Estradiol Spiking solution

(Contd. of page 3)

**8.2 Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

**Respiratory protection:** Not required.**Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

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.

**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:  $\geq 0.11$  mmValue for the permeation: Level  $\leq 480$ **As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.11$  mmValue for the permeation: Level  $\leq 480$ **Eye protection:**

Tightly sealed goggles

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Alcohol-like
<b>Odour threshold:</b>	Not determined.

<b>pH-value:</b>	Not determined.
------------------	-----------------

**Change in condition**

<b>Melting point/Melting range:</b>	-98 °C
<b>Boiling point/Boiling range:</b>	64.7 °C

(Contd. on page 5)

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.12.2015

Version number 5

Revision: 18.12.2015

Trade name: RIDA®17β-Estradiol Spiking solution

(Contd. of page 4)

<b>Flash point:</b>	11 °C
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Ignition temperature:</b>	455 °C
<b>Decomposition temperature:</b>	Not determined.
<b>Self-igniting:</b>	Not determined.
<b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
<b>Explosion limits:</b>	
Lower:	5.5 Vol %
Upper:	44 Vol %
<b>Vapour pressure at 20 °C:</b>	128 hPa
<b>Density at 20 °C:</b>	0.79 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Fully miscible.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	100.0 %
<b>9.2 Other information</b>	No further relevant information available.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

**10.2 Chemical stability**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

**Acute toxicity**

Toxic if swallowed, in contact with skin or if inhaled.

**LD/LC50 values relevant for classification:**

**67-56-1 methanol**

Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

**Primary irritant effect:**

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

(Contd. on page 6)

# Safety data sheet

## according to 1907/2006/EC, Article 31



Printing date 18.12.2015

Version number 5

Revision: 18.12.2015

**Trade name: RIDA®17β-Estradiol Spiking solution**

(Contd. of page 5)

**Serious eye damage/irritation** Based on available data, the classification criteria are not met.  
**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.  
**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
**Germ cell mutagenicity** Based on available data, the classification criteria are not met.  
**Carcinogenicity** Based on available data, the classification criteria are not met.  
**Reproductive toxicity** Based on available data, the classification criteria are not met.  
**STOT-single exposure**  
 Causes damage to organs.  
**STOT-repeated exposure** Based on available data, the classification criteria are not met.  
**Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

#### Additional ecological information:

##### General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

#### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Disposal must be made according to official regulations.

##### Uncleaned packaging:

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

#### 14.1 UN-Number

ADR, IMDG, IATA

UN1230

#### 14.2 UN proper shipping name

ADR

1230 METHANOL

IMDG

METHANOL

IATA

Methanol

(Contd. on page 7)

GB

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.12.2015

Version number 5

Revision: 18.12.2015

Trade name: RIDA®17β-Estradiol Spiking solution

(Contd. of page 6)

**14.3 Transport hazard class(es)****ADR****Class  
Label**3 (FT1) Flammable liquids.  
3+6.1**IMDG****Class  
Label**3 Flammable liquids.  
3/6.1**IATA****Class  
Label**3 Flammable liquids.  
3 (6.1)**14.4 Packing group  
ADR, IMDG, IATA**

II

**14.5 Environmental hazards:  
Marine pollutant:**

No

**14.6 Special precautions for user  
Danger code (Kemler):  
EMS Number:  
Stowage Category  
Stowage Code**Warning: Flammable liquids.  
336  
F-E,S-D  
B  
SW2 Clear of living quarters.**14.7 Transport in bulk according to Annex II  
of Marpol and the IBC Code**

Not applicable.

**Transport/Additional information:****ADR****Limited quantities (LQ)  
Excepted quantities (EQ)**1L  
Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml**Transport category  
Tunnel restriction code**2  
D/E**IMDG****Limited quantities (LQ)  
Excepted quantities (EQ)**1L  
Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

(Contd. on page 8)

# Safety data sheet

## according to 1907/2006/EC, Article 31



Printing date 18.12.2015

Version number 5

Revision: 18.12.2015

**Trade name: RIDA®17β-Estradiol Spiking solution**

(Contd. of page 7)

**UN "Model Regulation":**

UN 1230 METHANOL, 3 (6.1), II

### SECTION 15: Regulatory information

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

**Directive 2012/18/EU****Named dangerous substances - ANNEX I** Substance is listed.**Seveso category**

H2 ACUTE TOXIC

P5c FLAMMABLE LIQUIDS

**Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t**National regulations:****Waterhazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:** QS 0049-6151-8102-0**Contact:** QS 0049-6151-8102-0**Abbreviations and acronyms:**

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

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

ICAO: International Civil Aviation Organisation

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

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1

**\* Data compared to the previous version altered.**