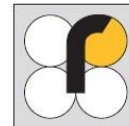


# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006  
Version 03 Revision date: 14-02-2019  
Print date: 4-3-2019

r-biopharm®



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

### 1.1. Product identifier

Product name TMB substrate  
Product code 5000TMB

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

Identified uses Laboratory use. This product is a colorimetric solution for use in immunological in-vitro tests, based on the marker enzyme HRP.

### 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)

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

### 2.2. Label elements

#### Labelling (Regulation (EC) No 1272/2008)


Not applicable.

### 2.3. Other hazards

Not applicable.

## 3. Composition/information on ingredients

### 3.1. Dangerous ingredients

Chemical name	EC-No	CAS-No	Weight (%)	Classification (1272/2008/EC)	 GHS07
Citric acid monohydrate	201-069-1	5949-29-1	<5 %	Eye Irrit. 2 H319	

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. Remember to remove contact lenses. Get medical attention immediately if symptoms occur.

<b>Skin contact</b>	Wash off with plenty of water. Remove contaminated clothing. Consult a physician.
<b>Ingestion</b>	Rinse mouth with water. Do NOT induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.
<b>Inhalation</b>	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**

<b>Notes to physician</b>	Treat symptomatically.
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**5. Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Use water, CO<sub>2</sub>, 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**

None known.

**5.3. Advise for firefighters**

Wear self-contained breathing apparatus and protective suit.

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#### **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. 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**

Soak up with inert absorbent material (e.g. sand, silica, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

##### **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.

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#### **7. Handling and storage**

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

Handle in accordance with good industrial hygiene and safety practice. 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.

Store at 2°C to 8°C (36°F to 46°F).

### 7.3. Specific end uses

No data available.

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## 8. Exposure controls/personal protection

### 8.1. Control parameters

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

### 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.

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## 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	0°C (32°F)
Initial boiling point/ boiling range	100°C (212°F)
Flash point	not applicable
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	Product is not self igniting
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.

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## 10. Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

### 10.4. Conditions to avoid

No data available.

### 10.5. Incompatible materials

No further relevant information available.

### 10.6. Hazardous decomposition products

In the event of fire: See chapter 5.

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## 11. Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

No data available.

#### Skin corrosion/irritation

No data available.

#### Serious eye damage/irritation

No data available.

#### Respiratory or skin sensitization

No data available.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

Contains no ingredient listed as a carcinogen

#### Reproductive toxicity

No data available.

#### Specific target organ toxicity – single exposure

No data available.

#### Specific target organ toxicity – repeated exposure

No data available.

#### Aspiration hazard

No data available.

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## 12. Ecological information

### 12.1. Toxicity

No data available.

### 12.2. Persistence and degradability

No data available.

### 12.3. Bioaccumulative potential

No data available.

### 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.

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## 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.

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## 14. Transport information

### 14.1. UN/ID No

ADR/RID: -

IMDG: -

IATA: -

### 14.2. UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3. Transport hazard class

ADR/RID: -

IMDG: -

IATA: -

### 14.4. Packaging group

ADR/RID: -

IMDG: -

IATA: -

### 14.5. Environmental hazards

ADR/RID: -

IMDG Marine pollutant: -

IATA: -

### 14.6. Special precautions for user

Not applicable.

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## 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

A Chemical Safety Assessment has not been carried out.

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## 16. Other information

### Full text of H-statements referred to under Sections 2 and 3

H319 – Causes serious eye irritation

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.

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