



# **Material Safety Data Sheet**

***Mouse IL-6 ELISA***

***Catalog Number: 61-IL6MS-E01***

## **ALPCO Diagnostics**

26G Keewaydin Drive • Salem, NH 03079  
Phone: (800) 592-5726 • Fax: (603) 898-6854  
[www.alpco.com](http://www.alpco.com) • Email: [web@alpco.com](mailto:web@alpco.com)

## Letter of Safety Hazard Exemption

**Product Name: Mouse IL-6 Platinum ELISA**

**Catalog Number BMS603-2**

Our review of the manufacturing process for the requested item indicates that, apart from the components listed below, it is exempt from MSDS requirement. This product contains neither hazardous substances to health or the environment at concentrations  $\geq 1\%$  nor PBT/ vPvB\* substances at concentrations  $\geq 0.1\%$ . As a result a Material Safety Data Sheet is not required for this product.

For further information refer to following regulations:

- European Regulation 1907/2006 Article 31
- United States 29CFR 1910.1200

Although this product is considered a general laboratory reagent, we recommend that Good Laboratory Practice (GLP) be followed to ensure the safe use and disposal of this reagent.

Kit components which require Material Safety Data Sheets:

- ✓ Stop Solution
- ✓ 1N NaOH
- ✓ 1N HCl
- ✓ Substrate Solution
- ✓ Propidium Iodide

For these Material Safety Data Sheets please refer to our Homepage [www.eBioscience.com](http://www.eBioscience.com) or alternatively they can be requested from our Customer Service at [europa@eBioscience.com](mailto:europa@eBioscience.com).

Sincerely,



Wolfgang Angermann  
Quality Manager

\* PBT-substances: persistent, bioaccumulative and toxic substances  
vPvB-substances: very persistent, very bioaccumulative substances

**+ Europe**  
eBioscience  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
technical support: +43 (1) 796 40 40-120  
customer service: +43 (1) 796 40 40-304  
fax: +43 (1) 796 40 40-400

[tech@ebioscience.com](mailto:tech@ebioscience.com)  
[europa@ebioscience.com](mailto:europa@ebioscience.com)  
[www.ebioscience.com](http://www.ebioscience.com)

**+ USA**  
eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

[tech@ebioscience.com](mailto:tech@ebioscience.com)  
[info@ebioscience.com](mailto:info@ebioscience.com)  
[www.ebioscience.com](http://www.ebioscience.com)

**+ Europe**

eBioscience  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
technical support: +43 (1) 796 40 40-120  
customer service: +43 (1) 796 40 40-304  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
**[www.ebioscience.com](http://www.ebioscience.com)**

**+ USA**

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
**[www.ebioscience.com](http://www.ebioscience.com)**

# Material Safety Data Sheet according to EC 1907/2006

**Trade name: Stop Solution**

## 1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY/UNDERTAKING

### 1.1 Identification of the preparation:

**Identification on the label / trade name:** Stop Solution

**Additional identification:** 1M phosphoric acid, phosphoric acid 9%, 1M H<sub>3</sub>PO<sub>4</sub>

### 1.2 Use of the preparation:

The stop solution is used to terminate an enzyme reaction.

### 1.3 Company/undertaking identification:

Bender MedSystems GmbH

Campus Vienna Biocenter 2

1030 Vienna, Austria

phone: +43 1 796 40 40 100

fax: +43 1 796 40 40 400

E-Mail: [europa@ebioscience.com](mailto:europa@ebioscience.com)

**Information contact:** [europa@ebioscience.com](mailto:europa@ebioscience.com)

### 1.4 EMERGENCY TELEPHONE:

phone: +43 1 796 40 40 100 (Austria)

phone: +1 (888) 999 1371 (USA)

These phone numbers are available during office hours.

## 2. HAZARDS IDENTIFICATION

### 2.1 Hazards description:

Causes corrosion/ irritation

#### 2.1.1 Classification:

Regulation (EC) No 1272/2008 [CLP]	
Hazard classes/Hazard categories	Hazard statement
3.1/ category 4	H302, H312
3.2/ Category 2	H315
3.3/ Category 2	H319
4.1/ Category 4	H413

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

[tech@ebioscience.com](mailto:tech@ebioscience.com)  
[europa@ebioscience.com](mailto:europa@ebioscience.com)  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

[tech@ebioscience.com](mailto:tech@ebioscience.com)  
[info@ebioscience.com](mailto:info@ebioscience.com)  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: Stop Solution

<b>67/548/EEC or 1999/45/EC</b>	
Hazards characteristics	R-Phrases
Xi	R36, R38, R53

### 3.3 Remark:

Full text of H- and R-phrases: see section 16.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Preparation / mixture related informations

**Description:** Mixture of mentioned below ingredients:

#### 3.2 Ingredients:

Chemical name	EC-No	Index-No	CAS-No	Amount (%)	Classification according Regulation (EC) No 1272/2008 [CLP]		Classification according 67/548/EEC
					Hazard class/ Hazard categories	Hazard-statement	
Phosphoric Acid Water, dest.	231-633-2 231-791-2	015-011-00-6 -	7664-38-2 7732-18-5	99 -	3.2/ Category 1B -	H314 -	C; R34 -

### 4. FIRST AID MEASURES

#### 4.1 General informations:

Skin- and eyecontact causes irritation  
In case of indisposition contact a doctor, show this datasheet.

#### 4.2 In case of skin contact:

Wash affected bodyparts with plenty amount of water.

#### 4.3 In case of eye contact:

Wash the affected eye with water for a minimum of 10 minutes.  
In case of indisposition contact an eye-specialist.

#### 4.4 In case of ingestion:

Immediately wash your mouth with plenty of water.  
Furthermore swallow water in small amounts (dilution)

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: Stop Solution

## 5. FIRE-FIGHTING MEASURES

### 5.1 Suitable extinguishing media:

water, dry powder extinguisher, carbondioxid

### 5.2 Extinguishing media which must not be used for safety reasons:

Attention with dry powder extinguisher.

It's not appropriate for in door fire because raised foam causes lack of sight.

### 5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

In case of fire, despite flue gas also dangerous, product specific gases might be produced (phosphorus oxide). Because of the very low concentration of this mixture it is very unlikely that above mentioned oxides will be produced in a hazered amount.

Further data are not known.

### 5.4 Special protective equipment for fire-fighters:

In case of heavy smoke a respirator shall be used.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions:

In case of spilled mixture safety gloves have to be worn to prevent skin contact.

In case of big amounts an additional inhalation protection is recommended.

### 6.2 Environmental precautions:

Mixture must not discard in sewage system/ residual waste.

Dilute residues cautiously with water and clean it up with a paper towel.

### 6.3 Methods for cleaning up:

Spilled mixture can be cleaned up with a paper towel an discarded in an appropriate waste.

Afterwards clean bench with water.

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: **Stop Solution**

## 7. HANDLING AND STORAGE

### 7.1 Handling

**Advices on safe handling:**

Protective measures: wear protective clothing

**Precautions against fire and explosion:**

Development of explosive atmosphere is not possible

### 7.2 Storage

**Technical measures and storage conditions:**

Storage in well closed containers

**Packaging materials:**

Acid resistant containers (e.g.: glas, polyethylen) are suitable

**Requirements for storage rooms and vessels:**

Prevent direct sunlight and heat.

Store in well aired storage rooms.

**Further information on storage conditions:**

Storage temperature: -20 °C – 8 °C

Storage stability: stabil

Maximal storage periode: 2 years

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Exposure limit values:

#### 8.1.1 Components with occupational exposure limits requiring monitoring:

**Phosphoric acid:**

**maximum allowable concentration**

EU:	short term value:	2 mg/m <sup>3</sup>
	long term (8 hs):	1 mg/m <sup>3</sup>
USA:	short term value	no data available
	long term (8 hs):	1 mg/m <sup>3</sup>

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: Stop Solution

## 8.2 Personal protection equipment:

<u>Respiratory protection:</u>	not necessary
<u>Hand protection:</u>	disposable protective gloves
<u>Eye protection:</u>	not necessary
<u>Body protection:</u>	lab coat, lab shoes

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

<b>Physical state:</b>	liquid
<b>Colour:</b>	colourless
<b>Odour:</b>	odourless

### 9.2 Important health, safety and environmental information

#### 9.2.1 Safety relevant data

	Value	Remark
<b>pH (20 °C):</b>	pH 2, acid	pH paper
<b>Melting point (°C):</b>	about 150 °C	
<b>Boiling point (°C):</b>	no data	
<b>Ignition temperature (°C):</b>	no data	
<b>Vapour pressure (°C):</b>	no data	
<b>Density (g/cm<sup>3</sup>):</b>	no data	
<b>Water solubility:</b>	very well soluble	
<b>Viscosity, dynamic (mPa s):</b>	no data	
<b>Explosion limits:</b>	-	mixture is not explosive

## 10. STABILITY AND REACTIVITY

stable under mentioned storage conditions

### 10.1 Conditions to avoid:

Direct sunlight, high temperature

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)



# Material Safety Data Sheet according to EC 1907/2006

Trade name: Stop Solution

## 10.2 Materials to avoid:

Bases (cause heat development), powdery metals  
(heat development and dynamics of the reaction depends on the acid concentration)

## 10.3 Hazardous decomposition products:

No data available  
Because of the low acid concentration in the mixture, no hazardous gases are expected.

## 11. TOXICOLOGICAL INFORMATION

### 11.2 Acute effects (toxicity tests)

7664-38-2 phosphoric acid	Effect dose	Species
Acute oral toxicity	LD50 = 1530 mg/kg	rat
Acute dermal toxicity	LD50 = 2730 mg/kg	rat
Acute inhalative toxicity	LC50 = 850 mg/m <sup>3</sup>	rat

### Specific symptoms in animal studies:

In case of ingestion: Somnolence, Hematuria

In case of skin contact: Somnolence, Infuriation

In case of inhalation: no data

In case of eye contact: no data

### Irritant and corrosive effects:

	Exposure time	Species	Evaluation
Primary irritation to the skin:	24 h	rabbit	strong irritation
Irritation to eyes	no data	rabbit	strong irritation

### Sensitisation

In case of skin contact: no data

In case of inhalation: no data

### Repeated dose toxicity (sub-acute, sub-chronic, chronic)

No data available

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: Stop Solution

**CMR effects**  
**(carcinogenicity, mutagenicity and toxicity for reproduction)**  
No CMR effects

## 12. Ecological information

**12.1 Ecotoxicity:**  
no data

### 12.2 Mobility:

**Known or predicted distribution to environmental compartments:**

In case of shifting the pH value there might be some damaging effects for aquatic organism.

The mixture must not dispose in the sewage system without pretreatment.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Appropriate disposal / Product:

All national and local laws have to be considered. This product is only allowed to be discarded by a licensed waste management company.

### 13.2 Waste codes / waste designations according to EWC / AVV (Austria):

Medical waste: Waste code: 97101

In other countries different conditions might be valid. All national and local laws have to be considered.

### 13.3 Appropriate packaging:

Rinse container with water, dispose as the product.

## 14. TRANSPORT INFORMATION

Official transport designation: Stop Solution, Research reagent

Because product is no dangerous good, no specific codes or labels are necessary.

## 15. REGULATORY INFORMATION

### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: **Stop Solution**

## 15.1 EU regulations

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

Hazard components for labelling: Phosphoric Acid

Signal words: Attention

Hazard pictograms: GHS07



Hazard statements: H302, H312, H315, H319, H413

Precautionary statements: P281, P301, P302, P305, P330, P404, P410

## 16. OTHER INFORMATION

### 16.1 Relevant R- and H-phrases:

H302: Harmful if swallowed  
H312: Harmful in contact with skin  
H315: Causes skin irritation  
H319: Causes serious eye irritation  
H413 May cause long lasting harmful effects to aquatic life  
R36: Irritating to eyes  
R38: Irritating to skin  
R53: May cause long-term adverse effects in the aquatic environment  
P281: Use personal protective equipment as required  
P301: IF SWALLOWED: swallow water in small amounts  
P302: IF ON SKIN: wash with water  
P305: IF IN EYES: wash with water  
P330: Flush mouth  
P404: Store in a closed container  
P410: Protect from sunlight

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

## Material Safety Data Sheet according to EC 1907/2006

Trade name: Stop Solution

**16.2 Training instructions:** no data

**16.4 Data sources:**  
BDI Helpdesk (Germany), ECHA, GESTIS (IFA)

**16.5 Further information:**  
The above information has been assembled to the best of our knowledge but might not be complete.  
Bender MedSystems GmbH can not be held liable for any damages resulting from handling with the product

---

**+ Europe**  
Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

**+ USA**  
eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: Substrate Solution

## 1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY/UNDERTAKING

### 1.1 Identification of the preparation:

**Identification on the label / trade name:** Substrate Solution

**Additional identification:** TMB

### 1.2 Use of the preparation:

This preparation causes a coloured reaction whose intensity depends on the concentration of the substance which has to be determined.

### 1.3 Company/undertaking identification:

Bender MedSystems GmbH

Campus Vienna Biocenter 2

1030 Vienna, Austria

phone: +43 1 796 40 40 100

fax: +43 1 796 40 40 400

E-Mail: [europa@ebioscience.com](mailto:europa@ebioscience.com)

**Information contact:** [europa@ebioscience.com](mailto:europa@ebioscience.com)

### 1.4 EMERGENCY TELEPHONE:

phone: +43 1 796 40 40 100 (Austria)

phone: +1 (888) 999 1371 (USA)

These phone numbers are available during office hours.

## 2. HAZARDS IDENTIFICATION

### Hazards description:

According to the regulation there are no hazardous substances. Therefore no classification and labelling is necessary.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Preparation / mixture related informations

**Description:** Mixture of tetramethylbenzidin TMB, hydrogen peroxide, detergent Tween 20, citrate, EDTA, preserving agent kathon CG.

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

[tech@ebioscience.com](mailto:tech@ebioscience.com)  
[europa@ebioscience.com](mailto:europa@ebioscience.com)  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

[tech@ebioscience.com](mailto:tech@ebioscience.com)  
[info@ebioscience.com](mailto:info@ebioscience.com)  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: Substrate Solution

## 3.2 Hazard Ingredients:

Chemical name	EG-Nr.	CAS-Nr.	Amount (%) in the preparation	Classification according Regulation (EC) No 1272/2008 [CLP] (Related to the conc. form)		Classification according 67/548/EEC (related to the conc. form)
				Hazard class/ Hazard categories	Hazard- statement	
3,3',5,5'-Tetramethylbenzidin	2593646	54827-17-7	< 0.04	3.1/4	H302,312,332	Xn; R20/21/22-36/37/38-40
EDTA	2053583	6381-92-6	< 0.1	3.2/2	H315	Xi; R36
5-Chlor-2-methyl-4-isothiazolin-3-on	N/ A	26172-55-4	< 0.0001	3.1/3; 4.1/1	H301,311,331,410	T, N; R23/24/25-34-43-50/53
2-Methyl-4-isothiazolin-3-on	N/ A	2682-20-4	< 0.00004	3.1/3; 4.1/1	H301,311,331,410	T, N; R23/24/25-34-43-50/53
Hydrogen peroxide	231-765-0	7722-84-1	< 0.005	2.13/1; 3.1/4; 3.2/1A	H271,302,314,332	O, C; R: 5-8-20/22-35

## 4. FIRST AID MEASURES

- 4.1 General informations:** Because of the low concentrations of the ingredients seeing a doctor is not necessary.
- 4.2 In case of skin contact:** Wash affected bodyparts with plenty amount of water.
- 4.3 In case of eye contact:** Wash the affected eye with water for 10 minutes.
- 4.4 In case of ingestion:** Immediately wash your mouth with plenty of water. Furthermore swallow water in small amounts (dilution).

## 5. FIRE-FIGHTING MEASURES

- 5.1 Suitable extinguishing media:** water, dry powder extinguisher, carbondioxid
- 5.2 Extinguishing media which must not be used for safety reasons:** Attention with dry powder extinguisher. It's not appropriate for in door fire because raised foam causes lack of sight.

+ Europe  
Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

+ USA  
eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: **Substrate Solution**

## 5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:

The Substrate Solution itself is not flammable.

In case of fire usual flue gas will be produced. Because of the very low concentration of this preparation it is very unlikely that gases in a hazered amount will be produced.

Further data are not known.

## 5.4 Special protective equipment for fire-fighters:

In case of heavy smoke a respirator shall be used.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions:

In case of spilled mixture safety gloves have to be worn to prevent skin contact.

### 6.2 Environmental precautions:

Mixture must not discard in sewage system/ residual waste.

Dilute residues cautiously with water and clean it up with a paper towel.

### 6.3 Methods for cleaning up:

Spilled mixture can be cleaned up with a paper towel and discarded in an appropriate waste.

Afterwards clean bench with water.

## 7. HANDLING AND STORAGE

### 7.1 Handling

#### Advices on safe handling:

Protective measures: wear protective clothing

#### Precautions against fire and explosion:

Development of explosive atmosphere is not possible

### 7.2 Storage

#### Technical measures and storage conditions:

Storage in light-proof, well closed containers.

---

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: **Substrate Solution**

## Packaging materials:

Containers made of polyethylen are suitable.

## Requirements for storage rooms and vessels:

Prevent direct sunlight and heat.

Store in well aired storage rooms.

## Further information on storage conditions:

Storage temperature: -20°C - 8°C

Storage stability: stabil

Maximal storage periode: 12 months

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Exposure limit values:

#### 8.1.1 Components with occupational exposure limits requiring monitoring:

maximum allowable concentration

- ✓ TMB: Austria, EU, USA: no data available
- ✓ EDTA: Austria, EU, USA: no data available
- ✓ 5-Chlor-2-methyl-4-isothiazolin-3-on:
  - Austria: short term value: no data available
  - long term (8hs): 0.05 mg/m<sup>3</sup>
  - USA: short/ long term: no data available
- ✓ 2-Methyl-4-isothiazolin-3-on:
  - Austria: short term value: no data available
  - long term (8hs): 0.05 mg/m<sup>3</sup>
  - USA: short/ long term: no data available
- ✓ Hydrogen peroxide:
  - Austria: short term value: 2.8 mg/m<sup>3</sup>
  - long term (8hs): 1.4 mg/m<sup>3</sup>
  - USA: short term value: no data available
  - long term (8hs): 1.4 mg/m<sup>3</sup>

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)



# Material Safety Data Sheet according to EC 1907/2006

Trade name: Substrate Solution

## 8.2 Personal protection equipment:

Respiratory protection: not necessary  
Hand protection: disposable protective gloves  
Eye protection: not necessary  
Body protection: lab coat, lab shoes

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Appearance

**Physical state:** liquid  
**Colour:** yellowish or bluish  
**Odour:** odourless

### 9.2 Important health, safety and environmental information

#### 9.2.1 Safety relevant data

	Value	Remark
<b>pH (20 °C):</b>	about pH 3, acid	pH paper
<b>Melting point: (°C):</b>	no data	
<b>Boiling point (°C):</b>	no data	
<b>Ignition temperature (°C):</b>	no data	
<b>Vapour pressure (°C):</b>	no data	
<b>Density (g/cm<sup>3</sup>):</b>	no data	
<b>Water solubility:</b>	very well soluble	
<b>Viscosity, dynamic (mPa s):</b>	no data	
<b>Explosion limits:</b>	-	mixture is not explosive

## 10. STABILITY AND REACTIVITY

stable under mentioned storage conditions

### 10.1 Conditions to avoid:

Direct sunlight, high temperature  
There's no dangerous reaction but the Substrate Solution will be defective.

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: Substrate Solution

## 10.2 Materials to avoid:

Heavy metal salt

There's no dangerous reaction but the Substrate Solution will be defective.

## 10.3 Hazardous decomposition products:

No data available

## 11. TOXICOLOGICAL INFORMATION

### 11.2 Acute effects (toxicity tests)

Chemical name		Wirkdosis	Spezies
3,3',5,5'-Tetramethylbenzidin	Acute oral toxicity	No data	
EDTA-di-Natriumsalz	Acute oral toxicity	LD50 = 2000 mg/kg	rat
5-Chlor-2-methyl-4-isothiazolin-3-on	Acute oral toxicity	LD50 = 3350 mg/kg	rat
2-Methyl-4-isothiazolin-3-on	Acute oral toxicity	LD50 = 550 mg/kg	rat
Hydrogen peroxide	Acute oral toxicity Akute dermal toxicity	LD50 = 1232 mg/kg LD50 = 3000 mg/kg	rat rabbit

### Specific symptoms in animal studies:

No data available

### Irritant and corrosive effects:

No data available

### Sensitisation

In case of skin contact: no data

In case of inhalation: no data

### Repeated dose toxicity (sub-acute, sub-chronic, chronic)

No data available

### CMR effects

(carcinogenicity, mutagenicity and toxicity for reproduction)

No CMR effects

#### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

#### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: Substrate Solution

## 12. Ecological information

### 12.1 Ecotoxicity:

Aquatic toxicity	Effectdose	Exposure time	Species
Acute fish toxicity	LC50=0.19 mg/l	No data	Trout
Acute daphnia toxicity	EC50=0.16 mg/l	No data	Daphnia magna
Acute algae toxicity	EC50=0.018 mg/l	No data	Selenastrum capricornutum

These data are only related to the preserving agents 5-Chlor-2-methyl-4-isothiazolin-3-on and 2-Methyl-4-isothiazolin-3-on.

### 12.2 Mobility:

**Known or predicted distribution to environmental compartments:**

No data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Appropriate disposal / Product:

All national and local laws have to be considered. This product is only allowed to be discarded by a licensed waste management company.

### 13.2 Waste codes / waste designations according to EWC / AVV (Austria):

Medical waste: Waste code: 97101

In other countries different conditions might be valid. All national and local laws have to be considered.

### 13.3 Appropriate packaging:

Rinse container with water, dispose as the product.

## 14. TRANSPORT INFORMATION

Official transport designation: Substrate Solution

Because product is no dangerous good, no specific codes or labes are necessary.

### + Europe

Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

### + USA

eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)

# Material Safety Data Sheet according to EC 1907/2006

Trade name: **Substrate Solution**

## 15. REGULATORY INFORMATION

### 15.1 EU regulations

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

Hazard components for labelling: -  
Signal words: not applicable  
Hazard pictograms: not applicable  
Hazard statements: not applicable

## 16. OTHER INFORMATION

16.1 **Training instructions:** no data

16.3 **Data sources:**  
BDI Helpdesk (Germany), ECHA, GESTIS (IFA)

16.4 **Further information:**  
The above information has been assembled to the best of our knowledge but might not be complete.  
Bender MedSystems GmbH can not be held liable for any damages resulting from handling with the product

---

**+ Europe**  
Bender MedSystems GmbH  
Campus Vienna Biocenter 2  
1030 Vienna, Austria  
phone: +43 (1) 796 40 40-0  
fax: +43 (1) 796 40 40-400

tech@ebioscience.com  
europe@ebioscience.com  
[www.bendermedsystems.com](http://www.bendermedsystems.com)

**+ USA**  
eBioscience, Inc.  
10255 Science Center Drive  
San Diego, CA 92121  
technical support: +1 (888) 810 6168  
customer service: +1 (888) 999 1371  
fax: +1 (858) 642 2046

tech@ebioscience.com  
info@ebioscience.com  
[www.ebioscience.com](http://www.ebioscience.com)