

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 H₃PO₄

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

Information contact: 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

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67/548/EEC or 1999/45/EC	
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)

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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.

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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 ³
	long term (8 hs):	1 mg/m ³
USA:	short term value	no data available
	long term (8 hs):	1 mg/m ³

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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

Physical state:	liquid
Colour:	colourless
Odour:	odourless

9.2 Important health, safety and environmental information

9.2.1 Safety relevant data

	Value	Remark
pH (20 °C):	pH 2, acid	pH paper
Melting point (°C):	about 150 °C	
Boiling point (°C):	no data	
Ignition temperature (°C):	no data	
Vapour pressure (°C):	no data	
Density (g/cm³):	no data	
Water solubility:	very well soluble	
Viscosity, dynamic (mPa s):	no data	
Explosion limits:	-	mixture is not explosive

10. STABILITY AND REACTIVITY

stable under mentioned storage conditions

10.1 Conditions to avoid:

Direct sunlight, high temperature

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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 ³	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

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**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

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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

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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

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