

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Hydrochloric acid, 1N HCl

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

1.1 Identification of the preparation:

Identification on the label / trade name: 1N Hydrochloric acid, 1N HCl

Additional identification: ca. 3% HCl

1.2 Use of the preparation:

The hydrochloric acid is used to acidify the samples.

1.3 Company/undertaking identification:

IBL-America, Inc.

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Minneapolis, MN 55432, USA

phone: +1 (888) 523 1246

fax: +1 (763) 780 2988

E-Mail: ibl@ibl-america.com

Website: www.ibl-america.com

1.4 EMERGENCY TELEPHONE:

In the event of an emergency, please dial 911.

2. HAZARDS IDENTIFICATION

2.1 Hazards description:

Causes corrosion/ irritation

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Trade name: 1N Hydrochloric acid, 1N HCl

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

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

2.1.2 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	
Hydrochloric Acid Water, dest.	231595-7 231-791-2	017-002-01-X -	7647-01-0 7732-18-5	32 -	3.2/ Category 1B -	H314 -	C; R34 -

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Trade name: 1N Hydrochloric acid, 1N HCl

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)

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. Because of the very low concentration of this mixture it is very unlikely that 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.

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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 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 well closed containers

Packaging materials:

Acid resistant containers (e.g.: glas, polyethylen) are suitable
Containers made of metal are not suitable.

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Trade name: 1N Hydrochloric acid, 1N HCl

Requirements for storage rooms and vessels:

Prevent direct sunlight and heat.
Store in well aired storage rooms.

Further information on storage conditions:

Storage temperature: 2 – 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:

Hydrochloric Acid:

maximum allowable concentration

EU:	short term value:	15 mg/m ³
	long term (8 hs):	8 mg/m ³
USA:	short term value	7 mg/m ³
	long term (8 hs):	no data available

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

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Trade name: 1N Hydrochloric acid, 1N HCl

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):	no data	
Boiling point (°C):	no data	
Ignition temperature (°C):	no data	
Vapour pressure (°C):	no data	
Density (g/cm ³):	1.0130 g/cm ³	
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

10.2 Materials to avoid:

No data available

10.3 Hazardous decomposition products:

No data available

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

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Trade name: 1N Hydrochloric acid, 1N HCl

11. TOXICOLOGICAL INFORMATION

11.2 Acute effects (toxicity tests)

7647-01-0 HCl	Effect dose	Species
Acute oral toxicity	LD50 = 900 mg/kg	rabbit
Acute dermal toxicity	no data	
Acute inhalative toxicity	LC50 = 3124 mg/l	rat

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

12. Ecological information

12.1 Ecotoxicity:

Aquatic toxicity (1N HCl)	Effectdose	Exposure time	Species
Acute fish toxicity	LC50=826 mg/l	96 h	Leuciscus idus
Acute daphnia toxicity	No data		
Acute algae toxicity	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.

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Hydrochloric acid, 1N HCl

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: 1N HCl, 1N Hydrochloric acid
Because product is no dangerous good, no specific codes or labels are necessary.

15. REGULATORY INFORMATION

15.1 EU regulations

Labelling (Regulation (EC) No 1272/2008)

Hazard components for labelling: Hydrochloric Acid

Signal words: Attention

Hazard pictograms: GHS07



Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Hydrochloric acid, 1N HCl

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: Harmfull if swallowed
- H312: Harmfull 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



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Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Hydrochloric acid, 1N HCl

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

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.
IBL-America, Inc. can not be held liable for any damages resulting from handling with the product

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:

IBL America, Inc.
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Minneapolis, MN 55432, USA
phone: +1 (888) 523 1246
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Website: www.iblamerica.com

1.4 EMERGENCY TELEPHONE:
In the event of an emergency, please dial 911.

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.

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.

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 hazarded 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 be discarded 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.

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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/m³
 - 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/m³
 - USA: short/ long term: no data available
- ✓ Hydrogen peroxide:
 - Austria: short term value: 2.8 mg/m³
 - long term (8hs): 1.4 mg/m³
 - USA: short term value: no data available
 - long term (8hs): 1.4 mg/m³

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
pH (20 °C):	about pH 3, acid	pH paper
Melting point: (°C):	no data	
Boiling point (°C):	no data	
Ignition temperature (°C):	no data	
Vapour pressure (°C):	no data	
Density (g/cm ³):	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
There's no dangerous reaction but the Substrate Solution will be defective.

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	LD50 = 1232 mg/kg	rat
	Acute dermal toxicity	LD50 = 3000 mg/kg	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

(carcinogenity, mutagenicity and toxicity for reproduction)

No CMR effects

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.

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.

IBL-America, Inc. can not be held liable for any damages resulting from handling with the product.

Material Safety Data Sheet according to EC 1907/2006

Trade name: Propidium Iodide

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

1.1 Identification of the preparation:

Identification on the label / trade name: Propidium Iodide
Additional identification: 2% Propidium Iodide solution

1.2 Use of the preparation:

Propidium Iodide solution is used to stain cells.

1.3 Company/undertaking identification:

IBL-America, Inc.
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Minneapolis, MN 55432, USA
phone: +1 (888) 523 1246
fax: +1 (763) 780 2988
E-Mail: ibl@ibl-america.com
Website: www.ibl-america.com

1.4 EMERGENCY TELEPHONE:

In the event of an emergency, please dial 911.

2. HAZARDS IDENTIFICATION

2.1 Hazards description:

Causes irritation of eyes, skin and respiratory system.

2.1.1 Classification:

Regulation (EC) No 1272/2008 [CLP]	
Hazard classes/Hazard categories	Hazard statement
Causes irritation on skin	H315
Causes irritation on eyes	H319
Causes irritation of respiratory system	H335

Material Safety Data Sheet according to EC 1907/2006

Trade name: Propidium Iodide

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

2.1.2 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	
Propidium iodide	247-081-0	No data	25535-16-4	-	3.1/ Cat. 4	H302,H312,H	Xn;Xi;R36/37/38, R20/21/22
				-	3.2/ Cat 2	332,H315	
					3.3/ Cat 2	HH319	
					-	-	
Dest. ater	231-791-2	No data	7732-18-5	-	-	-	-
NaCl	231-598-3	No data	7647-14-5	-	-	-	-
HEPES	230-907-9	No data	7365-45-9	-	-	-	-
CaCl2	233-140-8	017-013-00-2	10043-52-4	-	3.3/ Cat 2	H319	Xi; R36

4. FIRST AID MEASURES

4.1 General informations:

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. Consult a doctor.

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.

Material Safety Data Sheet according to EC 1907/2006

Trade name: Propidium Iodide

4.4 In case of ingestion:

Immediately wash your mouth with plenty of water.
Consult a doctor.

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. Because of the very low concentration of this mixture it is very unlikely that oxides will be produced in a hazardous 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.

Material Safety Data Sheet according to EC 1907/2006

Trade name: Propidium Iodide

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:

Store in lightproof containers

Requirements for storage rooms and vessels:

Prevent direct sunlight and heat.

Store in well aired storage rooms.

Further information on storage conditions:

Storage temperature: 2 – 8 °C

Storage stability: stable

Maximal storage periode: see product packaging

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure limit values:

8.1.1 Components with occupational exposure limits requiring monitoring:

No data available

8.2 Personal protection equipment:

Respiratory protection: not necessary

Hand protection: disposable protective gloves

Eye protection: not necessary

Body protection: lab coat, lab shoes

Material Safety Data Sheet according to EC 1907/2006

Trade name: Propidium Iodide

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

Physical state: liquid
Colour: red
Odour: odourless

9.2 Important health, safety and environmental information

9.2.1 Safety relevant data

	Value	Remark
pH (20 °C):	no data	
Melting point (°C):	no data	
Boiling point (°C):	no data	
Ignition temperature (°C):	no data	
Vapour pressure (°C):	no data	
Density (g/cm ³):	no data	
Water solubility:	no data	
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

10.2 Materials to avoid:

No data available

10.3 Hazardous decomposition products:

No data available

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

Material Safety Data Sheet according to EC 1907/2006

Trade name: Propidium Iodide

11. TOXICOLOGICAL INFORMATION

11.2 Acute effects (toxicity tests)

25535-16-4 Propidium Iodide	Effect dose	Species
Acute oral toxicity	LD50 = 16 mg/kg	mouse
Acute dermal toxicity	no data	
Acute inhalative toxicity	no data	

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

(carcinogenity, mutagenicity and toxicity for reproduction)

No CMR effects

12. Ecological information

12.1 Ecotoxicity:

No data available

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 pre-treatment.

Material Safety Data Sheet according to EC 1907/2006

Trade name: Propidium Iodide

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: Propidium Iodide

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

15. REGULATORY INFORMATION

15.1 EU regulations

Labelling (Regulation (EC) No 1272/2008)

Hazard components for labelling: Propidium Iodide

Signal words: Attention

Hazard pictograms: GHS07



Hazard statements: H315, H319, H335

Material Safety Data Sheet according to EC 1907/2006

Trade name: Propidium Iodide

Precautionary statements: P261, P351, P338

16. OTHER INFORMATION

16.1 Relevant R-, H- and P-phrases:

H315: Causes skin irritation
H319: Causes serious eye irritation
H335 Causes irritation to respiratory system
R36: Irritating to eyes
R37: Irritation to respiratory system
R38: Irritating to skin
P261: Avoid breathing dust/fume/gas/mist/vapours/spray
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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.

IBL-America, Inc. can not be held liable for any damages resulting from handling with the product



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:

IBL-America, Inc.

8201 Central Ave NE, Suite P

Minneapolis, MN 55432, USA

phone: +1 (888) 523 1246

fax: +1 (763) 780 2988

E-Mail: ibl@ibl-america.com

Website: www.ibl-america.com

1.4 EMERGENCY TELEPHONE:

In the event of an emergency, please dial 911.

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

Material Safety Data Sheet according to EC 1907/2006

Trade name: Stop Solution

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)

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.

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

Material Safety Data Sheet according to EC 1907/2006

Trade name: Stop 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: 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/cm ³):	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

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 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

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

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



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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.
IBL-America, Inc. can not be held liable for any damages resulting from handling with the product

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Sodiumhydroxide solution, 1N NaOH

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

1.1 Identification of the preparation:
Identification on the label / trade name: 1N Sodiumhydroxide solution, 1N NaOH
Additional identification: NaOH 4%

1.2 Use of the preparation:
The NaOH is used to neutralize acidified samples.

1.3 Company/undertaking identification:
IBL-America, Inc.
8201 Central Ave NE, Suite P
Minneapolis, MN 55432, USA
phone: +1 (888) 523 1246
fax: +1 (763) 780 2988
E-Mail: ibl@ibl-america.com
Website: www.ibl-america.com

1.4 EMERGENCY TELEPHONE:
In the event of an emergency, please dial 911.

2. HAZARDS IDENTIFICATION

2.1 Hazards description:
Causes corrosion/ irritation

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Sodiumhydroxide solution, 1N NaOH

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 3	H412

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

2.1.2 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	
NaOH Water, dest.	215-185-5 231-791-2	011-002-00-6 -	1310-73-2 7732-18-5	solid -	3.2/ Category 1 -	H314 -	C; R34 -

4. FIRST AID MEASURES

4.1 General informations:

In case of longer exposure contact a doctor, show this datasheet.
Skin- and eyecontact causes corrosion.

4.2 In case of skin contact:

Wash affected bodyparts with plenty amount of water.
In case of constant skin irritation contact a doctor.

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Sodiumhydroxide solution, 1N NaOH

4.3 In case of eye contact:

Wash the affected eye with water for a minimum of 10 minutes.
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).
Don't cause vomiting. Contact a doctor.

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. Because of the very low concentration of this mixture it is very unlikely that oxides will be produced in a hazardous 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.

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Sodiumhydroxide solution, 1N NaOH

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 well closed containers

Packaging materials:

Base resistant containers (e.g.: polyethylen) are suitable

Containers made of aluminium, tin, zinc are not 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: 2 – 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:

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Sodiumhydroxide solution, 1N NaOH

Sodiumhydroxide solution:

maximum allowable concentration

Austria:	short term value:	2 mg/m ³
	long term (8 hs):	4 mg/m ³
USA:	short term value	no data available
	long term (8 hs):	2 mg/m ³

8.2 Personal protection equipment:

<u>Respiratory protection:</u>	only necessary in case of fumes
<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 10, alkaline	pH paper
Melting point (°C):	no data	
Boiling point (°C):	no data	
Ignition temperature (°C):	no data	
Vapour pressure (°C):	no data	
Density (g/cm³):	1.0318 g/cm ³	
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

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Sodiumhydroxide solution, 1N NaOH

10.1 Conditions to avoid:

Direct sunlight, high temperature

10.2 Materials to avoid:

Metals (development of hydrogen, explosion hazard)

Acids (heat development)

Sal ammoniac (development of ammoniac)

10.3 Hazardous decomposition products:

No data available

11. TOXICOLOGICAL INFORMATION

11.2 Acute effects (toxicity tests)

1310-73-2/ NaOH (waterfree NaOH)	Effect dose	Species
Acute oral toxicity	LD50 = 2000 mg/kg	rat
Acute dermal toxicity	no data	
Acute inhalative toxicity	no data	

Specific symptoms in animal studies:

No data available

Irritant and corrosive effects:

	Exposure time	Species	Evaluation
Primary irritation to the skin:	no data	rabbit	corrosion
Irritation to eyes	no data	rabbit	corrosion

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

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Sodiumhydroxide solution, 1N NaOH

CMR effects
(carcinogenicity, mutagenicity and toxicity for reproduction)

No CMR effects

12. Ecological information

12.1 Ecotoxicity:

Aquatic toxicity	Effectdose	Exposure time	Species
Acute fish toxicity	LC50=45.4 mg/l	96 h	Onchorhynchus mykiss
Acute daphnia toxicity	EC50=76 mg/l	24 h	Daphnia magna
Acute algae toxicity	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.

Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Sodiumhydroxide solution, 1N NaOH

14. TRANSPORT INFORMATION

Official transport designation: 1N NaOH, 1N Sodiumhydroxyde solution
Because product is no dangerous good, no specific codes or labes are necessary.

15. REGULATORY INFORMATION

15.1 EU regulations

Labelling (Regulation (EC) No 1272/2008)

Hazard components for labelling: Sodiumhydroxide solution, NaOH

Signal words: Attention

Hazard pictograms: GHS07



Hazard statements: H302, H312, H315, H319, H412

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

H412 Harmful to aquatic life with long lasting effects

R36: Irritating to eyes

R38: Irritating to skin

R53: May cause long-term adverse effects in the aquatic environment



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Material Safety Data Sheet according to EC 1907/2006

Trade name: 1N Sodiumhydroxide solution, 1N NaOH

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

16.2 Training instructions: no data

16.4 Data sources:
REACH Helpdesk (Austria), 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.
IBL-America, Inc. can not be held liable for any damages resulting from handling with the product