

Material Safety Data Sheet According to 91/155 EC

Catecholamines RIA

REF IB88161	REF IB88171
REF IB88162	REF IB88172
REF IB88163	REF IB88173
REF IB88165	REF IB88175
REF IB88166	REF IB88176

Relevant Material Safety Data Sheets:

MSDS BA 001
MSDS BA 010
MSDS BA 011
MSDS BA 012
MSDS BA 013 (only IB88161, IB88162, IB88163, IB88165, IB88166)
MSDS BA 014
MSDS BA 015
MSDS BA 017 (only IB88161, IB88162, IB88163, IB88165, IB88166)
MSDS BA 019 (only IB88161, IB88162, IB88163, IB88165, IB88166)
MSDS BA 020
MSDS BA 025 (only IB88161, IB88162, IB88163, IB88165, IB88166)
MSDS BA 026 (only IB88171, IB88172, IB88173, IB88175, IB88176)
MSDS BA 030
MSDS BA 045 (only IB88171, IB88172, IB88173, IB88175, IB88176)
MSDS BA 050



1. Identification of Substance

Product details:

Trade name: Standard / ControlSTANDARDCONTROL

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. <u>Composition/Information on Ingredients</u>

Chemical characterization of preparation Description: Aqueous solution Hazardous ingredients: Not applicable

3. <u>Potential Hazards</u>

Hazard specification: Not applicable.

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. <u>First-aid Measures</u>

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. Fire-fighting Measures

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

6. <u>Accidental Release Measures</u>

Personal protection:

	danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
• •	diatomite, acid binder, universal binder, saw dust).

Wear protective clothing. Remove unprotected persons from



Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day.

Inhalation protection: Not applicable. Hand protection: Suitable protective gloves (In case of accidental release only) Eye protection: Safety glasses

9. <u>Physical and Chemical Properties</u>

Form:	liquid	
Colour:	colourless	
Odour:	odourless.	
pH-value:	approx. 1	
Boiling point:	approx. 100°C	
Flashpoint:	not applicable	
Autoignition temperature: product is not self-igniting		
Explosion properties: not explosive.		
Vapour pressure:	undetermined.	
Density:	approx. 1g / cm ³ .	
Solubility:	Water: 100%.	
Solvent percentage: < 0,0%		

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications. Materials to avoid: No dangerous reaction known. Hazardous decomposition products: No dangerous decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No skin irritation known.Eye contact: Irritation.Further information: Product is not subject to labelling.



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to specific labelling under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):-Water pollution class: Not hazardous to water.

16. <u>Other Information</u>

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable.



1. Identification of Substance

Product details:

Trade name: Antiserum AS

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. Composition/Information on Ingredients

Chemical characterization of preparation Description: Aqueous solution Hazardous ingredients: Not applicable

3. **Potential Hazards**

Hazard specification: Not applicable.

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. First-aid Measures

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. <u>Fire-fighting Measures</u>

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

ю.	Accidental Release Measures	
	Personal protection:	Wear protective clothing. Remove unprotected persons from danger zone.
	Environmental protection: Methods of cleaning/absorbing:	Do not dispose down the drains or into waters. Soak up mechanically with suitable liquid-binding material (sand,

diatomite, universal binder, saw dust).



7. <u>Handling and Storage</u>

Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothes at once. Always wash hands before having a break and at the end of a working day. **Inhalation protection:** Not applicable. **Hand protection:** Suitable protective gloves (In case of accidental release only) **Eye protection:** Not required

9. <u>Physical and Chemical Properties</u>

Form: liquid Colour: according to type of antiserum dyed blue, yellow or green Odour: odourless. pH-value: approx. 7.5 **Boiling point:** approx. 100°C Flashpoint: not applicable Autoignition temperature: product is not self-igniting **Explosion properties:** not explosive. Vapour pressure: undetermined. **Density:** approx. 1g / cm3. Water: 100%. Solubility: Solvent percentage: < 0.0%

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications.Materials to avoid: No dangerous reaction known.Hazardous decomposition products: No dangerous decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No skin irritation known.Eye contact: No irritation known.Further information: Product is not subject to specific labelling.



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal must be made according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the

Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to specific labelling under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):-Water pollution class: Not hazardous to water.

16. <u>Other Information</u>

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable.



1. Identification of Substance

Product details:

Trade name: Acylation Buffer ACYL-BUFF

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. <u>Composition/Information on Ingredients</u>

Chemical Characterization of Preparation Description: Aqueous solution Hazardous ingredients: Not applicable.

3. Potential Hazards

Hazard specification: Not applicable.

Accidental Release Measures

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. <u>First-aid Measures</u>

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. <u>Fire-fighting Measures</u>

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

Personal protection:	Wear protective clothing. Remove unprotected persons from danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
	diatomite, acid binder, universal binder, saw dust).

6.



7. <u>Handling and Storage</u>

Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day. Material might be infectious.

Inhalation protection: Not applicable. Hand protection: Suitable protective gloves Eye protection: Safety glasses

9. Physical and Chemical Properties

Form:	liquid	
Colour:	colourless	
Odour:	odourless.	
pH-value:	approx. 1	
Boiling point:	approx. 100°C	
Flashpoint:	not applicable	
Autoignition temperature: product is not self-igniting		
Explosion properties: not explosive.		
Vapour pressure:	undetermined.	
Density:	approx. 1g / cm ³ .	
Solubility:	Water: 100%.	
Solvent percentage: < 0.0%		

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications. Materials to avoid: No dangerous reaction known. Hazardous decomposition products: No dangerous decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No skin irritation known. Eye contact: Irritation. Further information: Product is not subject to labelling.



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal must be made according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the

Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to labelling under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):-Water pollution class: Not hazardous to water.

16. <u>Other Information</u>

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable



1. Identification of Substance

Product details: Acylation Reagent, Acylation Diluent

 ACYL-REAG
 ACYL-DILUENT

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. Composition/Information on Ingredients

Chemical Characterization of Preparation Description: Solution Hazardous ingredients: N,N-Dimethylformamide R: 61-20/21 S: 53 - 45

3. <u>Potential Hazards</u>

Hazard specification: Toxic.

Special hazard warnings for humans and the environment: The product might be teratogenic. Harmful to health upon inhalation and contact with the skin.

4. First-aid Measures

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. <u>Fire-fighting Measures</u>

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: Use breathing apparatus in case of fire.

6. Accidental Release Measures Personal protection: Wear protective clothing. Remove unprotected persons from

-	danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
	diatomite, acid binder, universal binder, saw dust).



Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: - 6.1 A

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: BAT: 35 mg/l EG: Probably teratogenic for humans. TGS 900: 10 ml/m³ 30 mg/m³ Limit value: 4-fold in 15 minutes Personal protective equipment General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothes at once. Always wash hands before having a break and at the end of a working day. Material might be infectious. Inhalation protection: Not applicable. Hand protection: Suitable protective gloves Eye protection: Not applicable

9. <u>Physical and Chemical Properties</u>

Form: liquid Colour: colourless, lucent Odour: slightly amine-like pH-value: 7 **Boiling point:** approx. 153°C Flashpoint: 58 – 67°C Autoignition temperature: product is not self-igniting **Explosion properties:** not explosive. Vapour pressure: undetermined. Density: approx. 1g / cm³. Solubility: Water: 100%. Solvent percentage: 100%

10. <u>Stability and Reactivity</u>

Conditions to avoid: No decomposition if used according to specifications. Materials to avoid: Excessive heat. Hazardous decomposition products: Nitrogene oxides may develop in case of fire.

11. <u>Toxicological Information</u>

Skin contact: Harmful to health.Eye contact: Eye irritant.Further information: Product might be teratogenic. Harmful to health upon inhalation and contact with skin. Product to be labelled as toxic.



General information: Hazardous to water. Fast decomposition when exposed to air. Mobility and bioaccumulation: No bioaccumulation known. Ecotoxocity: Do not dispose into water, canalization or soil.

13. **Disposal Considerations**

Waste from residues: Disposal must be made according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. **Transport information**

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: UN 2265.

15. **Regulatory information**

Labelling according to EU-Directives: The product is subject to labelling.

Toxic

Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):- Observe employment restriction for adolescents or pregnant or breast feeding women.

Water pollution class: Slightly hazardous to water.

16. **Other Information**

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.



1. Identification of Substance

Product details:

Trade name: Assay Buffer ASSAY-BUFF

Catalogue numbers: BA 10-1613, BA 10-1241

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. <u>Composition/Information on Ingredients</u>

Chemical Characterization of preparation Description: Aqueous solution Hazardous ingredients: Hydrochloric acid (<2%), C, R 36/38

3. <u>Potential Hazards</u>

Hazard specification: Not applicable.

Accidental Release Measures

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. <u>First-aid Measures</u>

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. <u>Fire-fighting measures</u>

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

Personal protection:	Wear protective clothing. Remove unprotected persons from
·	danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
5 5	diatomite, acid binder, universal binder, saw dust).

6.



Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: 8 B (VCI).

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day.

Inhalation protection: Not applicable. Hand protection: Suitable protective gloves (In case of accidental release only) Eye protection: Safety glasses

9. <u>Physical and chemical properties</u>

Form:	liquid	
Colour:	colourless	
Odour:	odourless	
pH-value:	approx. 1.	
Boiling point:	approx. 100°C	
Flashpoint:	not applicable	
Autoignition temperature: not self-igniting		
Explosion properties: not explosive.		
Vapour pressure:	undetermined.	
Density:	approx. 1g / cm ³ .	
Solubility:	Water: 100%.	
Solvent percentage	e: < 0.0%	

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** No dangerous reaction known. **Hazardous decomposition products:** No decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No irritation known.Eye contact: Irritation.Further information: Product is not subject to labelling.



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal must be made according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to labelling under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):-Water pollution class: Not hazardous to water.

16. <u>Other Information</u>

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: 36/38 (Products are not subject to labelling as this is diluted hydrochloric acid (1,5%)



1. Identification of Substance

Product details:

Trade name: Coenzyme COENZYME

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. <u>Composition/Information on Ingredients</u>

Chemical Characterization of preparation Description: Aqueous solution Hazardous ingredients: Not applicable

3. <u>Potential Hazards</u>

Hazard specification: Not applicable.

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. First-aid Measures

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. Fire-fighting measures

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

6. <u>Accidental Release Measures</u>

Personal protection:

	Wear protective oldring. Remove anprotected persons nom
	danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
	diatomite, acid binder, universal binder, saw dust).

Wear protective clothing Remove upprotected persons from



Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day.

Inhalation protection: Not applicable.

Hand protection: Suitable protective gloves (In case of accidental release only) Eye protection: Safety glasses.

9. Physikalische und chemische Eigenschaften

Form:	liquid	
Colour:	colourless	
Odour:	odourless	
pH-value:	approx. 1.	
Boiling point:	approx. 100°C	
Flashpoint:	not applicable	
Autoignition temperature: not self-igniting		
Explosion properties: not explosive.		
Vapour pressure:	undetermined.	
Density:	approx. 1g / cm ³ .	
Solubility:	Water: 100%.	
Solvent percentage	e: < 0.0%	

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** No dangerous reaction known.

11. <u>Toxicological Information</u>

Skin contact: No irritation known. Eye contact: Irritation. Further information: Product is not subject to labelling.



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal must be made according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to labelling under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):-Water pollution class: Not hazardous to water.

16. <u>Other Information</u>

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable



1. Identification of Substance

Product details:

Trade name: Enzyme ENZYME

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. <u>Composition/Information on Ingredients</u>

Chemical Characterization of preparation Description: Lyophilisate Hazardous ingredients: Not applicable

3. <u>Potential Hazards</u>

Hazard specification: Not applicable.

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. First-aid Measures

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. <u>Fire-fighting measures</u>

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

6. Accidental Release Measures

Personal protection:

Personal protection:	wear protective clothing. Remove unprotected persons from
	danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
	diatomite, acid binder, universal binder, saw dust).

We are protective elething. Demove upprotected persons from



Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day.

Inhalation protection: Not applicable.

Hand protection: Suitable protective gloves (In case of accidental release only) Eye protection: Not required

9. <u>Physical and chemical properties</u>

Form:	lyophilized
Colour:	testaceous
Odour:	odourless
pH-value:	approx. 7.5
Boiling point:	approx. 100°C
Flashpoint:	not applicable
Autoignition tempe	erature: not self-igniting
Explosion properti	es: not explosive.
Vapour pressure:	undetermined.
Density:	approx. 1g / cm ³ .
Solubility:	Water: 100%.
Solvent percentage	e: < 0.0%

10. <u>Stability and Reactivity</u>

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** No dangerous reaction known. **Hazardous decomposition products:** No decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No irritation known. Eye contact: Irritation. Further information: Product is not subject to labelling



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal must be made according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to labelling under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):-Water pollution class: Not hazardous to water.

16. <u>Other Information</u>

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable



Identification of Substance 1.

Product details:

Extraction Buffer EXTRACT-BUFF Trade name:

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. **Composition/Information on Ingredients**

Chemical Characterization of preparation Description: Aqueous solution Hazardous ingredients: Not applicable

3. **Potential Hazards**

Hazard specification: Not applicable.

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. **First-aid Measures**

General information: No special measures required. Inhalation: Fresh air supply. In case of discomfort, seek medical attention. Skin contact: Immediately wash skin using water and soap, then rinse thoroughly with water. Eye contact: Holding the eyelid open, rinse eye for several minutes using large quantities of water. Drink large quantities of water and seek medical attention in case of Swallowing: discomfort.

5. Fire-fighting measures

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

6. **Accidental Release Measures**

Personal protection:

Personal protection.	wear protective clothing. Remove unprotected persons norm
	danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
	diatomite, universal binder, saw dust).

Wear protective elething Remove upprotected persons from



Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day.

Inhalation protection: Not applicable. Hand protection: Suitable protective gloves (In case of accidental release only) Eye protection: Protective glasses

9. <u>Physical and chemical properties</u>

Form:	liquid
Colour:	colourless, transparent
Odour:	odourless
pH-value:	approx. 9
Boiling point:	approx. 100°C
Flashpoint:	not applicable
Autoignition temp	erature: not self-igniting
Explosion properti	ies: not explosive.
Vapour pressure:	undetermined.
Density:	approx. 1g / cm ³ .
Solubility:	Water: 100%.
Solvent percentag	e: < 0.0%

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** None, as no dangerous reactions are known. **Hazardous decomposition products:** No decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No irritation known. Eye contact: Not eye irritant. Further information: Product is not subject to labelling



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations:
Transport by road: RID/ ADR/ DoT49 CFR
Class: By sea IMDG/GGVSee
Class: By air: ICAO-TI, IATA-DGR
Class: Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to identification regulations under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):- Not hazardous to water.

16. Other Information

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable



1. Identification of Substance

Product details:

Trade name: HCL HCL

Catalogue numbers: BA E-5619, BA R-8619

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. Composition/Information on Ingredients

Chemical Characterization of preparation Description: Aqueous solution Hazardous ingredients: Not applicable

3. Potential Hazards

Hazard specification: Not applicable.

Accidental Release Measures

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

	4.	First-aid Measures	
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General inform	ation: No special measures required.
Inhalation:	Fresh air supply. In case of discomfort, seek medical attention.
Skin contact:	Immediately wash skin using water and soap, then rinse thoroughly with water.
Eye contact:	Holding the eyelid open, rinse eye for several minutes using large quantities of water.
Swallowing:	Drink large quantities of water and seek medical attention in case of discomfort.

5. <u>Fire-fighting measures</u>

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

Personal protection:	Wear protective clothing. Remove unprotected persons from
	danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
	diatomite, acid binder, universal binder, saw dust).

6.



Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day.

Inhalation protection: Not applicable.

Hand protection: Suitable protective gloves (In case of accidental release only) Eye protection: Protectives glasses

9. <u>Physical and chemical properties</u>

Form:	liquid
Colour:	colourless
Odour:	odourless
pH-value:	approx. 1
Boiling point:	approx. 100°C
Flashpoint:	not applicable
Autoignition tempe	erature: not self-igniting
Explosion properti	es: not explosive.
Vapour pressure:	undetermined.
Density:	approx. 1g / cm ³ .
Solubility:	Water: 100%.
Solvent percentage	e: < 0.0%

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** No dangerous reaction known. **Hazardous decomposition products:** No decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No irritation known. Eye contact: Irritation. Further information: Product is not subject to labelling



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal must be made according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to labelling under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):- Not hazardous to water.

16. Other Information

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable



1. Identification of Substance

Product details:

Trade name: Iodine ¹²⁵I ¹²⁵

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. <u>Composition / Information on Ingredients</u>

Chemical Characterization of preparation

Description: Aqueous solution

Hazardous ingredients: I-125, radioactive substance (100 - 200 kBq/bottle) with 60 days half-life

3. Potential Hazards

Hazard specification: Radioactive material

Special hazard warnings for humans and the environment: For information with respect to hazards for human beings and the environment please refer to the Atomic Energy Act or Radiological Protection Ordinance. The product must be labelled as radioactive material.

4. First-aid measures

General inform	ation: In case of contamination immediately contact radiation protection officer. First-aid measures should be administered before radiation protection measures.
Inhalation:	Fresh air supply. In case of discomfort, seek medical attention.
Skin contact:	Immediately wash skin using water and soap, then rinse thoroughly with water. Use decontamination agent if contamination could not be removed.
Eye contact:	Holding the eyelid open, rinse the eye for several minutes using large quantities of water.
Swallowing:	Drink large quantities of water and seek medical attention in case of discomfort.

5. Fire-fighting measures

Accidental Release Measures

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

Personal protection:	Wear protective clothing. Remove unprotected persons from
	danger zone. Cordon off danger zone and mark up if required.
Environmental protection:	Do not dispose down the drains or into waters.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
	diatomite, activated charcoal, universal binder, saw dust).

6.



Handling

Information on secure handling: Observe regulations on handling of radioactive substances. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: The storage room must be specially marked and be kept locked.

Information on storage in one common storage facility: Not applicable.

Further information on storage conditions: Radioactive substances may be stored in specially marked areas only.

Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: Separate, lockable space required, also see point 7. Components with special workplace-related control parameters: Limit values for I-125 must be adhered to.

Personal protective equipment

General protection and hygiene measures: Consumption and storage of food and beverages is prohibited in rooms where I-125 is handled with. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day.

Inhalation protection: Not applicable.

Hand protection: Suitable protective gloves Eye protection: Not applicable

9. <u>Physical and chemical properties</u>

Form:	liquid
Colour:	red
Odour:	odourless
pH-value:	approx. 7.5
Boiling point:	approx. 100°C
Flashpoint:	not applicable
Autoignition temp	erature: not self-igniting
Explosion propert	ies: not explosive.
Vapour pressure:	undetermined.
Density:	approx. 1g / cm³.
Solubility:	Water: 100%.
Solvent percentag	e: < 0.0%

10. <u>Stability and Reactivity</u>

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** No dangerous reaction known. **Hazardous decomposition products:** No decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: Radioactive contamination. Eye contact: Radioactive contamination. Further information: Product is radioactive



General information: Product is radioactive. **Environmental protection measures:** Do not dispose down the drains, into waters or soil.

13. Disposal Considerations

Waste from residues: The wastes must be marked "radioactive" and disposal must be made according to official regulations

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: UN 2910 radioactive substance, excepted package, limited quantity By sea IMDG/GGVSee Class: UN 2910 radioactive substance, excepted package, limited quantity By air: ICAO-TI, IATA-DGR Class: UN 2910 radioactive substance, excepted package, limited quantity Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is subject to labelling under EU directives.

Radioactive

16. Other Information

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.



1. Identification of Substance

Product details:

Trade name: Wash Buffer Concentrate WASH-CONC 50x

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. **Composition/Information on Ingredients**

Chemical Characterization of preparation Description: Aqueous solution Hazardous ingredients: Not applicable

3. **Potential Hazards**

Hazard specification: Not applicable.

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. **First-aid Measures**

General information: No special measures required. Inhalation: Fresh air supply. In case of discomfort, seek medical attention. Immediately wash skin using water and soap, then rinse thoroughly with water. Skin contact: Holding the eyelid open, rinse eye for several minutes using large quantities of Eye contact: water. Swallowing: Drink large quantities of water and seek medical attention in case of discomfort.

5. **Fire-fighting measures**

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

. . .

6. **Accidental Release Measures**

Personal protection:	Wear protective clothing. Remove unprotected persons from
	danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
	diatomite, universal binder, saw dust).

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Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day.

Inhalation protection: Not applicable. Hand protection: Suitable protective gloves (In case of accidental release only) Eye protection: Protective glasses

9. <u>Physical and chemical properties</u>

Form:	liquid
Colour:	colourless, transparent
Odour:	odourless
pH-value:	approx. 7.5
Boiling point:	approx. 100°C
Flashpoint:	not applicable
Autoignition temp	erature: not self-igniting
Explosion properties: not explosive.	
Vapour pressure:	undetermined.
Density:	approx. 1g / cm ³ .
Solubility:	Water: 100%.
Solvent percentage	e: < 0.0%

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** None, as no dangerous reactions are known. **Hazardous decomposition products:** No decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No irritation known. Eye contact: Not eye irritant. Further information: Product is not subject to labelling



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations:
Transport by road: RID/ ADR/ DoT49 CFR
Class: By sea IMDG/GGVSee
Class: By air: ICAO-TI, IATA-DGR
Class: Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to identification regulations under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):- Not hazardous to water.

16. Other Information

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable



1. Identification of Substance

Product details:

Trade name: Release Buffer RELEASE-BUFF

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. Composition/Information on Ingredients

Chemical Characterization of preparation Description: Aqueous solution Hazardous ingredients: Not applicable

3. <u>Potential Hazards</u>

Hazard specification: Not applicable.

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. First-aid Measures

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. Fire-fighting measures

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

6.	Accidental Release Measures		

Personal protection:	Wear protective clothing. Remove unprotected persons from
	danger zone.
Environmental protection:	Do not dispose down the drains or into ground water.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand, diatomite, acid binder, universal binder, saw dust).



Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day.

Inhalation protection: Not applicable.

Hand protection: Suitable protective gloves (In case of accidental release only) Eye protection: Protectives glasses

9. <u>Physical and chemical properties</u>

Form:	liquid
Colour:	colourless
Odour:	odourless
pH-value:	approx. 1
Boiling point:	approx. 100°C
Flashpoint:	not applicable
Autoignition temperature: not self-igniting	
Explosion properties: not explosive.	
Vapour pressure:	undetermined.
Density:	approx. 1g / cm ³ .
Solubility:	Water: 100%.
Solvent percentage	e: < 0.0%

10. <u>Stability and Reactivity</u>

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** No dangerous reaction known. **Hazardous decomposition products:** No decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No irritation known. Eye contact: Irritation. Further information: Product is not subject to labelling



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Disposal must be made according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the

Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to labelling under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):- Not hazardous to water.

16. <u>Other Information</u>

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable



1. Identification of Substance

Product details:

Trade name: Precipitation Reagent PREC-REAG

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. <u>Composition/Information on Ingredients</u>

Chemical Characterization of preparation Description: Aqueous solution Hazardous ingredients: Not applicable

3. Potential Hazards

Hazard specification: Not applicable.

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. First-aid Measures

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. <u>Fire-fighting measures</u>

Suitable extinguishing media: CO₂-powder or jet of water.

Special protective equipment required for fire-fighters: No special equipment required.

6. <u>Accidental Release Measures</u>		<u>S</u>
	Personal protection:	Wear protective clothing. Remove unprotected persons from
	· · · · · · · · · · · · · · · · · · ·	danger zone.
	Environmental protection:	Do not dispose down the drains or into waters.
	Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
		diatomite, acid binder, universal binder, saw dust).



Handling

Information on secure handling: No special measures required. **Information on fire and explosive protection:** No special fire- and explosion protection measures are required.

Storage

Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. Exposure Control/Personal Protection

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with workplace-related control parameters.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothes at once. Always wash hands before having a break and at the end of a working day. **Inhalation protection:** Not applicable. **Hand protection:** Suitable protective gloves (In case of accidental release only)

Eye protection: Not applicable

9. <u>Physical and chemical properties</u>

Form:	liquid
Colour:	colourless, yellowish
Odour:	odourless
pH-value:	approx. 7.5
Boiling point:	approx. 100°C
Flashpoint:	not applicable
Autoignition temperature: not self-igniting	
Explosion properties: not explosive.	
Vapour pressure:	undetermined.
Density:	approx. 1g / cm ³ .
Solubility:	Water: 100%.
Solvent percentage	e: < 0.0%

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** None, as no dangerous reactions are known. **Hazardous decomposition products:** No decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No irritation known. Eye contact: No irritation known. Further information: Product is not subject to labelling



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** No ecotoxicity known.

13. Disposal Considerations

Waste from residues: Residues have to be disposed of according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to www.retrologistik.de

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the

Transport / further information: Due to the small quantities this product is not hazardous according to recent regulations on hazardous material.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to identification regulations under EU directives. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV):- Not hazardous to water.

16. <u>Other Information</u>

The information provided in this Material Safety Data Sheet (MSDS) is believed to be accurate and represents the best information currently available to us. This safety data sheet describes our products with respect to safety requirements, however, it does not provide any guarantee on product properties and does not constitute any legal relationship.

Relevant R-phrases: Not applicable



1. Identification of Substance

Product details:

Trade name: Adjustment Buffer ADJUST-BUFF

Supplier Information: Immuno-Biological Laboratories, Inc. 8201 Central Ave NE, Suite P Minneapolis, Minnesota 55432 Tel: 763-780-2955 Fax: 763-780-2988 www.ibl-america.com

Emergency call number: In the event of a medical emergency, please dial 911.

2. <u>Composition/Information on Ingredients</u>

Chemical Characterization of preparation Description: Aqueous solution Hazardous ingredients: Not applicable

3. <u>Potential Hazards</u>

Hazard specification: Not applicable.

Accidental Release Measures

Special hazard warnings for humans and the environment: The product is not subject to specific labelling under current EU regulations of the "Allgemeine Einstufungsrichtlinie für Zubereitungen der EG".

4. First-aid Measures

General information:No special measures required.Inhalation:Fresh air supply. In case of discomfort, seek medical attention.Skin contact:Immediately wash skin using water and soap, then rinse thoroughly with water.Eye contact:Holding the eyelid open, rinse eye for several minutes using large quantities of water.Swallowing:Drink large quantities of water and seek medical attention in case of discomfort.

5. <u>Fire-fighting Measures</u>

Suitable extinguishing media: CO₂-powder or jet of water. **Special protective equipment required for fire-fighters:** No special protective equipment required.

Personal protection:	Wear protective clothing. Remove unprotected persons from
	danger zone.
Environmental protection:	Do not dispose down the drains or into waters.
Methods of cleaning/absorbing:	Soak up mechanically with suitable liquid-binding material (sand,
	diatomite, acid binder, universal binder, saw dust).

6.



7. <u>Handling and Storage</u>

Handling

Information on secure handling: No special measures required. Information on fire and explosive protection: No special fire- and explosion protection measures are required. Storage Requirements for storing rooms and containers: There are no special requirements. Information on storage in one common storage facility: Not applicable. Further information on storage conditions: Not applicable. Storage class: -

8. <u>Exposure Control/Personal Protection</u>

Additional information for system design: No further information, also see point 7. Components with special workplace-related control parameters: The product does not contain any relevant quantities of substances with job-related limit values which have to be controlled.

Personal protective equipment

General protection and hygiene measures: Keep away from food, beverages and animal feed. Remove contaminated clothing immediately. Always wash hands before having a break and at the end of a working day. The product might be infectious.

Inhalation protection: Not applicable.

Hand protection: Suitable protective gloves Eye protection: Not applicable

9. Physical and Chemical Properties

Form:	liquid
Colour:	transparent
Odour:	odourless
pH-value:	approx. 7 - 9
Boiling point:	approx. 100°C
Flashpoint:	not applicable
Autoignition temperature: product is not self-igniting	
Explosion properties: not explosive.	
Vapour pressure: undetermined.	
Density:	approx. 1g / cm ³ .
Solubility:	Water: 100%.
Solvent percentage: < 0.0%	

10. Stability and Reactivity

Conditions to avoid: No decomposition if used according to specifications. **Materials to avoid:** None, as there are not any dangerous reactions known. **Hazardous decomposition products:** No decomposition products known.

11. <u>Toxicological Information</u>

Skin contact: No irritation known. Eye contact: No irritation known. Further information: Product is not subject to labelling.



General information: Not hazardous to water. **Mobility and bioaccumulation:** No bioaccumulation known. **Ecotoxicity:** Not any ecotoxical effects known.

13. Disposal Considerations

Waste from residues: Arising residues are normally wastes which have to be disposed of according to official regulations

Contaminated packaging: Disposal must be made according to official regulations. For references and partners, please refer to <u>www.retrologistik.de</u>

14. Transport information

International regulations: Transport by road: RID/ ADR/ DoT49 CFR Class: -By sea IMDG/GGVSee Class: -By air: ICAO-TI, IATA-DGR Class: -Transport / further information: Due to the small quantities no dangerous goods according to above mentioned regulations.

15. <u>Regulatory Information</u>

Labelling according to EU-Directives: The product is not subject to labelling. Observe the general safety regulations when handling chemicals. Classification according to Classification as per German Health and Safety at Work Regulations (BetrSichV): -Water pollution class: Not hazardous to water.

16. <u>Other Information</u>

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Relevant R-phrases: Not applicable.