

Manufacturer

AJ Innuscreen GmbH
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Distributor

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07745 Jena · Germany
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Summary

Material Safety Data Sheet

Product: **smart Blood DNA Midi prep (m)**

Ref. No.: 845-KS-8100010

845-KS-8100050

April 12, 2017

SE Tube

19 / April / 2017

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English

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Italian

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Product information

SE Tube

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Danish

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15 / May / 2016

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Product information

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.04.2017

Revision: 03.04.2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Ery Lysis Solution A (conc.)

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

No further relevant information available.

Application of the substance / the preparation: Laboratory chemicals

Uses advised against: No further information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

AJ Innuscreen GmbH
Biotechnologie Campus Berlin-Buch
Robert-Rössle-Straße 10
13125 Berlin
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Tel.: +49 (0) 30 9489-3380
Fax: +49 (0) 30 9489-3381
E-Mail: info@aj-innuscreen.de
Internet: www.aj-innuscreen.de

Further information obtainable from: AJ Innuscreen GmbH

1.4 Emergency telephone number:

Poison Information Center / Vergiftungs-Informations-Zentrale
Mathildenstraße 1
79106 Freiburg
Germany
Tel.: +49 (0) 761 19 240
Fax: +49 (0) 761 270 44 570
E-Mail: giftinfo@uniklinik-freiburg.de
Internet: www.giftberatung.de

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS05

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.04.2017

Revision: 03.04.2017

Trade name: Ery Lysis Solution A (conc.)

(Contd. of page 1)

Signal word: Danger**Hazard-determining components of labelling:**

polyethylene glycol octylphenol ether

Hazard statements:

H315 Causes skin irritation.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P280 Wear protective gloves / eye protection / face protection.

P273 Avoid release to the environment.




P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards:**Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

9002-93-1 polyethylene glycol octylphenol ether	10-<25%
 Eye Dam. 1, H318;  Aquatic Chronic 2, H411;  Acute Tox. 4, H302; Skin Irrit. 2, H315	

SVHC:

9002-93-1 polyethylene glycol octylphenol ether

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

After inhalation: Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

After swallowing: Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.04.2017

Revision: 03.04.2017

Trade name: Ery Lysis Solution A (conc.)

(Contd. of page 2)

SECTION 5: Firefighting measures

5.1 Extinguishing media:**Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**5.2 Special hazards arising from the substance or mixture:**

Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters:**Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.

Keep away from ignition sources.

Wear protective clothing.

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Store in cool, dry place in tightly closed receptacles.

Information about fire - and explosion protection: The product is not flammable.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:** Store away from foodstuffs.**Further information about storage conditions:**

Keep container tightly sealed.

Store receptacle in a well ventilated area.

7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:**

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

8.2 Exposure controls:**Personal protective equipment:****General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.04.2017

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Trade name: Ery Lysis Solution A (conc.)

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Immediately remove all soiled and contaminated clothing.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.**Protection of hands:** Protective gloves**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:**General Information:****Appearance:**

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.

Change in condition:

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	100 °C

Flash point: Not applicable.**Flammability (solid, gas):** Not applicable.**Ignition temperature:** 425 °C**Decomposition temperature:** Not determined.**Auto-ignition temperature:** Product is not selfigniting.**Explosive properties:** Product does not present an explosion hazard.**Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure at 20 °C: 23 hPa**Density:** Not determined.**Relative density:** Not determined.**Vapour density:** Not determined.**Evaporation rate:** Not determined.**Solubility in / Miscibility with water:**

Soluble.

Partition coefficient: n-octanol/water: Not determined.**Viscosity:****Dynamic:** Not determined.

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Kinematic: Not determined.
9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity: No further relevant information available.
10.2 Chemical stability:
Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions: No dangerous reactions known.
10.4 Conditions to avoid: No further relevant information available.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects:
Acute toxicity Based on available data, the classification criteria are not met.
Primary irritant effect:
Skin corrosion/irritation
Causes skin irritation.
Serious eye damage/irritation
Causes serious eye damage.
Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity Based on available data, the classification criteria are not met.
Reproductive toxicity Based on available data, the classification criteria are not met.
STOT-single exposure Based on available data, the classification criteria are not met.
STOT-repeated exposure Based on available data, the classification criteria are not met.
Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity:
Aquatic toxicity: No further relevant information available.
12.2 Persistence and degradability: No further relevant information available.
12.3 Bioaccumulative potential: No further relevant information available.
12.4 Mobility in soil: No further relevant information available.
Additional ecological information:
General notes:
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
12.5 Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.
12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:
European waste catalogue:
Dispose of contents/container in accordance with local/regional/national/international regulations.

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Trade name: Ery Lysis Solution A (conc.)

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Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information**

14.1 UN-Number: ADR, ADN, IMDG, IATA	Void
14.2 UN proper shipping name: ADR, ADN, IMDG, IATA	Void
14.3 Transport hazard class(es): ADR, ADN, IMDG, IATA	Void
Class:	Void
14.4 Packing group: ADR, IMDG, IATA	Void
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user:	Not applicable.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
UN "Model Regulation":	Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

National regulations:**Other regulations, limitations and prohibitive regulations:****Substances of very high concern (SVHC) according to REACH, Article 57:**

9002-93-1 polyethylene glycol octylphenol ether

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

Department issuing SDS:

ADEEGO GmbH

Wildsteig 4A

D-42113 Wuppertal

Tel. +49 (0) 202 2575700

Fax. +49 (0) 202 2575701

Email: mail@adeego.de

www.adeego.de

Contact: Dr. Axel Deeg**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Ery Lysis Solution B (conc.)

15 / May / 2014

Manufacturer:

AJ Innuscreen GmbH
 Robert-Rössle-Straße 10
 13125 Berlin/ Germany
 Phone: +49 (0) 36 41 / 77-94 00
 Fax: +49 (0) 36 41 / 77-76 77 76

Distribution:

Analytik Jena AG
 Konrad-Zuse-Straße 1
 07745 Jena/ Germany
 www.bio.analytik-jena.com
 lifescience@analytik-jena.com

English

Per OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC:1005, 1008(1999)] and the latest amendments to the European Union Directives 67/548/EC, 1999/45/EC and 1272/2008/EC, the following products do not require a Material Safety Data Sheet (MSDS). Skin-sensitizing, carcinogenic, and reprotoxic substances each comprise less than 0.1% of these products. Furthermore, less than 1% w/w of these products consists of materials that are classed as hazardous to human health or to the environment, or for which a Community limit value has been established. These products also contain no components from the Candidate List of Substances of Very High Concern for Authorisation (SVHC) in concentrations of 0.1% or more. Therefore Analytik Jena AG does not provide a MSDS for any of the following products. However, when working with these or any chemical reagents, we always recommend the use of gloves, lab coats, and eye protection. Analytik Jena AG assumes no liability for damage resulting from handling or contact with these products.

German

Nach OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC:1005, 1008(1999)] und den neuesten Änderungen der Europäischen Richtlinien 67/548/EG, 1999/45/EG und 1272/2008/EG benötigen die folgenden Produkte kein Sicherheitsdatenblatt (MSDS). Sie enthalten weniger als 0,1 % eines hautallergenischen Stoffes, weniger als 0,1 % eines karzinogenen Stoffes, weniger als 0,1 % eines reproduktionstoxischen Stoffes, des Weiteren weniger als 1 Gewichts-% eines als gesundheitsschädlich oder umweltgefährlich eingestuftes oder mit einem gemeinschaftlichen Grenzwert versehenen Stoffes und enthalten keine Komponenten von der Liste „Candidate list of Substances of Very High Concern for authorisation“ (SVHC) in einer Konzentration größer/gleich 0,1 %. Deshalb stellt Analytik Jena AG kein MSDS für die folgenden Produkte zur Verfügung. Wir empfehlen jedoch beim Umgang mit unseren Produkten oder mit Chemikalien das Tragen von Sicherheitsbrillen, Kitteln und Schutzhandschuhen. Analytik Jena AG übernimmt keine Haftung resultierend aus dem Umgang oder Kontakt mit unseren Produkten.

French

En accord avec la directive OSHA 29CFR1910.1200 du Commonwealth d'Australie [NOHSC:1005, 1008(1999)] et les dernières modifications des directives de la Communauté Européenne 67/548/CE, 1999/45/CE et 1272/2008/CE, les produits suivants ne nécessitent pas de fiche de données de sécurité (FDS). Ils contiennent moins de 0,1 % d'une substance provoquant des allergies cutanées, moins de 0,1 % d'une substance cancérigène, moins de 0,1 % d'une substance toxique pour la reproduction, en outre moins de 1 % en poids d'une substance classée comme dangereuse pour la santé ou pour l'environnement ou ayant une valeur limite commune et ils ne contiennent aucun composé de la liste « Candidate list of Substances of Very High Concern for authorisation » (SVHC) dans une concentration supérieure ou égale à 0,1 %. Par conséquent, Analytik Jena AG ne fournit pas de FDS pour les produits suivants. Toutefois, lors de la manipulation de ces produits ou d'autres produits chimiques, le port d'une blouse, de gants de protection et de lunettes de sécurité est obligatoire. Analytik Jena AG décline toute responsabilité en cas de dommages découlant de la manipulation ou du contact avec ces produits.

Italian

Conformemente alle norme sulla Comunicazione dei Rischi della OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC: 1005, 1008 (1999)] e ai successivi emendamenti alle Direttive Europee 67/548/CE, 1999/45/CE e 1272/2008/CE, i seguenti prodotti non richiedono la scheda di dati di sicurezza (MSDS) in quanto contengono una quantità inferiore allo 0,1% di una sostanza dermoallergenica, una quantità inferiore allo 0,1% di una sostanza cancerogena, una quantità inferiore allo 0,1% di una sostanza tossica per la riproduzione. Inoltre, contengono una quantità inferiore all'1% in peso di una sostanza classificata come nociva per la salute o pericolosa per l'ambiente o di una sostanza soggetta ad un valore limite comunitario e non contengono alcuno dei componenti dell'elenco "Candidate list of Substances of Very High Concern for authorisation" (SVHC, ossia Elenco di sostanze estremamente problematiche candidate per l'autorizzazione) in una concentrazione pari o superiore allo 0,1%. Per questo motivo, Analytik Jena AG non fornisce alcuna scheda di dati sicurezza per i seguenti prodotti. Ciononostante, quando si lavora con questi o qualsiasi altro prodotto chimico è sempre consigliabile utilizzare guanti protettivi, camici adeguati e occhiali protettivi. Analytik Jena AG non si assume alcuna responsabilità per danni a cose e/o persone derivanti dall'uso e dal contatto con questi prodotti.

Ery Lysis Solution B (conc.)

15 / May / 2014

Manufacturer:

AJ Innuscreen GmbH
Robert-Rössle-Straße 10
13125 Berlin/ Germany
Phone: +49 (0) 36 41 / 77-94 00
Fax: +49 (0) 36 41 / 77-76 77 76

Distribution:

Analytik Jena AG
Konrad-Zuse-Straße 1
07745 Jena/ Germany
www.bio.analytik-jena.com
lifescience@analytik-jena.com

Danish

I følge Commonwealth of Australia OSHA 29CFR1910.1200 [NOHSC:1005,1008 (999)] og det seneste tillæg til EU-direktiv 67/548/EF, 1999/45/EF og 1272/2008/EF kræver følgende produkter ikke sikkerhedsdatablad. De indeholder mindre end 0,1 % af et hudallergent stof, mindre end 0,1 % af et karcinogent stof, mindre end 0,1 % af et reproduktionstoksisk stof samt mindre end 1 % m/m af et stof klassificeret som sundhedsskadeligt eller miljøfarligt eller forsynet med en EU-grænseværdi og indeholder ingen komponenter fra listen "Candidate list of substances of very high concern for authorisation" (SVHC) i en koncentration på 0,1 % eller højere. Derfor leverer Analytik Jena AG intet sikkerhedsdatablad for nedenstående produkter. Vi anbefaler imidlertid altid brug af beskyttelseshandsker, kittel og øjenværn ved omgang med disse og andre kemikalier. Analytik Jena AG påtager sig intet ansvar for skader, der opstår ved brug af disse produkter.

Dutch

Volgens de richtlijnen van OSHA29CFR1920.1200, Commonwealth of Australia, [NOHSC:1005, 1008(1999)] en de laatste wijzigingen van de Europese Richtlijnen 67/548/EG, 1999/45/EG en 1272/2008/EG, is voor de volgende producten geen veiligheidsgegevensblad (MSDS) nodig. Ze bevatten minder dan 0,1% van een huidallergene stof, minder dan 0,1% van een carcinogene stof, minder dan 0,1% van een reproductietoxische stof, en verder minder dan 1 gewichts-% van een als schadelijk voor de gezondheid of het milieu geclassificeerde of van een gemeenschappelijke grenswaarde voorziene stof en bevatten geen componenten uit de lijst "Candidate list of Substances of Very High Concern for authorisation" (SVHC) in een concentratie groter dan/gelijk aan 0,1%. Daarom stelt Analytik Jena AG voor de volgende producten geen veiligheidsgegevensblad ter beschikking. Desalniettemin raden we voor het werken met deze chemische reagentia altijd het dragen van handschoenen, labjassen en veiligheidsbrillen aan. Analytik Jena AG stelt zich niet aansprakelijk voor schade die voortkomt uit het gebruik van of het contact met deze producten.

Portuguese

Segundo a OSHA 29CFR1910.1200, a Comunidade da Austrália [NOHSC:1005, 1008(1999)] e as mais recentes alterações das diretivas da União Europeia 67/548/CE, 1999/45/CE e 1272/2008/CE, os seguintes produtos não requerem uma ficha de dados de segurança (FDS). Eles contêm menos de 0,1% de uma substância sensibilizante para a pele, menos de 0,1% de uma substância carcinogénea, menos de 0,1% de uma substância tóxica para a reprodução, além disso, contêm menos de 1% de peso de uma substância classificada como nociva e perigosa para o ambiente ou uma substância sujeita a um limite comunitário, e não contêm componentes da lista "Candidate list of Substances of Very High Concern for authorisation" (SVHC) (Lista de Substâncias Candidatas a Autorização que Suscitam Elevada Preocupação) numa concentração superior/igual a 0,1%. Por conseguinte, a Analytik Jena AG não disponibiliza nenhuma FDS para os seguintes produtos. Todavia, durante o manuseamento dos nossos produtos, recomendamos o uso de óculos e luvas de proteção, e batatas de laboratório. A Analytik Jena AG não assume qualquer responsabilidade que resulte do manuseamento ou do contacto com os nossos produtos.

Spanish

Por OSHA 29CFR1910.1200, la Mancomunidad de Australia [NOHSC:1005, 1008(1999)] y por las últimas enmiendas a las directrices de la Unión Europa 67/548/CE, 1999/45/CE y 1272/2008/CE, los siguientes productos no requieren de una Hoja de Seguridad (MSDS). Contienen menos de un 0,1% de una sustancia dermoalérgica, menos de un 0,1% de una sustancia cancerígena y menos de un 0,1% de una sustancia con toxicidad reproductiva, así como menos de un 1% en peso de una sustancia clasificada como nociva para la salud o peligrosa para el medio ambiente o para la que existan límites de exposición comunitarios, y no contienen ningún componente incluido en la «lista de sustancias candidatas altamente preocupantes sujetas a autorización» (SVHC) en concentración igual ni superior al 0,1%. Por consiguiente, Analytik Jena AG no proporciona una MSDS para ninguno de los siguientes productos. Sin embargo, cuando se trabaje con estos o cualquier reactivo químico, siempre recomendamos el uso de guantes, batas para laboratorio y protección de ojos. Analytik Jena AG no asume ninguna responsabilidad por daño causado por el uso o contacto con estos productos.

Product information

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.01.2016

Revision: 26.01.2016

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Lysis Solution CBV

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

No further relevant information available.

Application of the substance / the preparation: Laboratory chemicals

Uses advised against: No further information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

AJ Innuscreen GmbH
Biotechnologie Campus Berlin-Buch
Robert-Rössle-Straße 10
13125 Berlin
Germany
Tel.: +49 (0) 30 9489-3380
Fax: +49 (0) 30 9489-3381
E-Mail: info@aj-innuscreen.de
Internet: www.aj-innuscreen.de

Further information obtainable from: AJ Innuscreen GmbH

1.4 Emergency telephone number:

Poison Information Center / Vergiftungs-Informations-Zentrale
Mathildenstraße 1
79106 Freiburg
Germany
Tel.: +49 (0) 761 19 240
Fax: +49 (0) 761 270 44 570
E-Mail: giftinfo@uniklinik-freiburg.de
Internet: www.giftberatung.de

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:

The product is not classified according to the CLP regulation.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008: Void

Hazard pictograms: Void

Signal word: Void

Hazard statements: Void

2.3 Other hazards:

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 151-21-3	sodium dodecyl sulphate	5-<10%
EINECS: 205-788-1	☞ Eye Dam. 1, H318; ☞ Acute Tox. 4, H302; Skin Irrit. 2, H315; Aquatic Chronic 3, H412	

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Trade name: Lysis Solution CBV

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Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures:**General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

After inhalation: Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

After swallowing: Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media:**Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:** No further relevant information available.**5.3 Advice for firefighters:****Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Wear protective clothing.**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Store in cool, dry place in tightly closed receptacles.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** None.**7.3 Specific end use(s):** No further relevant information available.

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Safety data sheet

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Revision: 26.01.2016

Trade name: Lysis Solution CBV

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SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters:

Ingredients with limit values that require monitoring at the workplace:

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

8.2 Exposure controls:

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands: Protective gloves

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

General Information:

Appearance:

Form:	Fluid
Colour:	Clear
Odour:	Characteristic
Odour threshold:	Not determined.

pH-value at 20 °C: 8.0

Change in condition:

Melting point/Melting range:	0 °C
Boiling point/Boiling range:	100 °C

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Self-igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

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Trade name: Lysis Solution CBV

(Contd. of page 3)

Vapour pressure at 20 °C:	23 hPa
Density:	Not determined.
Relative density:	Not determined.
Vapour density:	Not determined.
Evaporation rate:	Not determined.
Solubility in / Miscibility with water:	Fully miscible.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
9.2 Other information:	No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity:** No further relevant information available.
- 10.2 Chemical stability:**
- Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions:** No dangerous reactions known.
- 10.4 Conditions to avoid:** No further relevant information available.
- 10.5 Incompatible materials:** No further relevant information available.
- 10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects:**
- Acute toxicity** Based on available data, the classification criteria are not met.
- Primary irritant effect:**
- Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**
- Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- Carcinogenicity** Based on available data, the classification criteria are not met.
- Reproductive toxicity** Based on available data, the classification criteria are not met.
- STOT-single exposure** Based on available data, the classification criteria are not met.
- STOT-repeated exposure** Based on available data, the classification criteria are not met.
- Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity:**
- Aquatic toxicity:** No further relevant information available.
- 12.2 Persistence and degradability:** No further relevant information available.
- 12.3 Bioaccumulative potential:** No further relevant information available.
- 12.4 Mobility in soil:** No further relevant information available.
- Additional ecological information:**
- General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.01.2016

Revision: 26.01.2016

Trade name: Lysis Solution CBV

(Contd. of page 4)

12.5 Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods:****Recommendation:**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number:**

ADR, ADN, IMDG, IATA Void

14.2 UN proper shipping name:

ADR, ADN, IMDG, IATA Void

14.3 Transport hazard class(es):

ADR, ADN, IMDG, IATA

Class: Void

14.4 Packing group:

ADR, IMDG, IATA Void

14.5 Environmental hazards:**Marine pollutant:** No**14.6 Special precautions for user:** Not applicable.**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

UN "Model Regulation": Void

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

Department issuing SDS:

ADEEGO GmbH

Wildsteig 4A

D-42113 Wuppertal

Tel. +49 (0) 202 2575700

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Safety data sheet according to 1907/2006/EC, Article 31

Printing date 26.01.2016

Revision: 26.01.2016

Trade name: Lysis Solution CBV

(Contd. of page 5)

Email: mail@adeego.dewww.adeego.de**Contact:** Dr. Axel Deeg**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.01.2016

Revision: 25.01.2016

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Proteinase K

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

No further relevant information available.

Application of the substance / the preparation: Laboratory chemicals

Uses advised against: No further information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

AJ Innuscreen GmbH
Biotechnologie Campus Berlin-Buch
Robert-Rössle-Straße 10
13125 Berlin
Germany
Tel.: +49 (0) 30 9489-3380
Fax: +49 (0) 30 9489-3381
E-Mail: info@aj-innuscreen.de
Internet: www.aj-innuscreen.de

Further information obtainable from: AJ Innuscreen GmbH

1.4 Emergency telephone number:

Poison Information Center / Vergiftungs-Informationen-Zentrale
Mathildenstraße 1
79106 Freiburg
Germany
Tel.: +49 (0) 761 19 240
Fax: +49 (0) 761 270 44 570
E-Mail: giftinfo@uniklinik-freiburg.de
Internet: www.giftberatung.de

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

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Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.01.2016

Revision: 25.01.2016

Trade name: Proteinase K

(Contd. of page 1)

Hazard pictograms:

GHS07 GHS08

Signal word: Danger**Hazard-determining components of labelling:**

proteinase, Tritirachium album serine

Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards:**Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 39450-01-6 proteinase, Tritirachium album serine 50-100%

EINECS: 254-457-8 Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

After inhalation: Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.01.2016

Revision: 25.01.2016

Trade name: Proteinase K

(Contd. of page 2)

After swallowing: Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media:**Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:** No further relevant information available.**5.3 Advice for firefighters:****Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Wear protective clothing.**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.**6.3 Methods and material for containment and cleaning up:** Pick up mechanically.**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Store in cool, dry place in tightly closed receptacles.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:** Store away from foodstuffs.**Further information about storage conditions:** None.**7.3 Specific end use(s):** No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:**

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

8.2 Exposure controls:**Personal protective equipment:****General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.**Protection of hands:** Protective gloves

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.01.2016

Revision: 25.01.2016

Trade name: Proteinase K

(Contd. of page 3)

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:**General Information:****Appearance:**

Form:	Solid
Colour:	White
Odour:	Nearly odourless
Odour threshold:	Not determined.
pH-value:	6.5 (as aqueous solution)

Change in condition:

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Self-igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure: Not applicable.

Density: Not determined.

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with water:

Soluble.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

9.2 Other information: No further relevant information available.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.01.2016

Revision: 25.01.2016

Trade name: Proteinase K

(Contd. of page 4)

SECTION 10: Stability and reactivity

10.1 Reactivity: No further relevant information available.

10.2 Chemical stability:

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions: No dangerous reactions known.

10.4 Conditions to avoid: No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity Based on available data, the classification criteria are not met.

Primary irritant effect:

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Recommendation:

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.01.2016

Revision: 25.01.2016

Trade name: Proteinase K

(Contd. of page 5)

European waste catalogue:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number:**

ADR, ADN, IMDG, IATA Void

14.2 UN proper shipping name:

ADR, ADN, IMDG, IATA Void

14.3 Transport hazard class(es):

ADR, ADN, IMDG, IATA

Class: Void**14.4 Packing group:**

ADR, IMDG, IATA Void

14.5 Environmental hazards:**Marine pollutant:** No**14.6 Special precautions for user:** Not applicable.**14.7 Transport in bulk according to Annex II of****Marpol and the IBC Code** Not applicable.**UN "Model Regulation":** Void**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Department issuing SDS:

ADEEGO GmbH

Wildsteig 4A

D-42113 Wuppertal

Tel. +49 (0) 202 2575700

Fax. +49 (0) 202 2575701

Email: mail@adeego.de

www.adeego.de

Contact: Dr. Axel Deeg**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.01.2016

Revision: 25.01.2016

Trade name: Proteinase K

(Contd. of page 6)

ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.02.2016

Revision: 04.02.2016

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Binding Optimizer

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

No further relevant information available.

Application of the substance / the preparation: Laboratory chemicals

Uses advised against: No further information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

AJ Innuscreen GmbH
Biotechnologie Campus Berlin-Buch
Robert-Rössle-Straße 10
13125 Berlin
Germany
Tel.: +49 (0) 30 9489-3380
Fax: +49 (0) 30 9489-3381
E-Mail: info@aj-innuscreen.de
Internet: www.aj-innuscreen.de

Further information obtainable from: AJ Innuscreen GmbH

1.4 Emergency telephone number:

Poison Information Center / Vergiftungs-Informationen-Zentrale
Mathildenstraße 1
79106 Freiburg
Germany
Tel.: +49 (0) 761 19 240
Fax: +49 (0) 761 270 44 570
E-Mail: giftinfo@uniklinik-freiburg.de
Internet: www.giftberatung.de

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS07

Signal word: Warning

Hazard-determining components of labelling:

acetic acid

Hazard statements:

H315 Causes skin irritation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.02.2016

Revision: 04.02.2016

Trade name: Binding Optimizer

(Contd. of page 1)

H319 Causes serious eye irritation.

Precautionary statements:

- P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read label before use.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P362 Take off contaminated clothing.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards:**Results of PBT and vPvB assessment:**

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 64-19-7 acetic acid 10-<25%

EINECS: 200-580-7  Flam. Liq. 3, H226;  Skin Corr. 1A, H314**Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

After inhalation: Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

After swallowing: Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media:****Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:**

Formation of toxic gases is possible during heating or in case of fire.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.02.2016

Revision: 04.02.2016

Trade name: Binding Optimizer

(Contd. of page 2)

5.3 Advice for firefighters:**Protective equipment:** Do not inhale explosion gases or combustion gases.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures:** Wear protective clothing.**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.**6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage**7.1 Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Store in cool, dry place in tightly closed receptacles.

Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:**

Do not store together with alkalis (caustic solutions).

Store away from foodstuffs.

Further information about storage conditions:

Keep container tightly sealed.

Store receptacle in a well ventilated area.

7.3 Specific end use(s): No further relevant information available.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:**

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

8.2 Exposure controls:**Personal protective equipment:****General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.**Protection of hands:** Protective gloves**Material of gloves:**

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.02.2016

Revision: 04.02.2016

Trade name: Binding Optimizer

(Contd. of page 3)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

General Information:

Appearance:

Form:	Fluid
Colour:	Clear
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value at 20 °C:	5.2

Change in condition:

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 485 °C

Decomposition temperature: Not determined.

Self-igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure at 20 °C: 23 hPa

Density: Not determined.

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with water:

Soluble.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity: No further relevant information available.

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Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.02.2016

Revision: 04.02.2016

Trade name: Binding Optimizer

(Contd. of page 4)

10.2 Chemical stability:**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions: Reacts with alkali (lyes).**10.4 Conditions to avoid:** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide**SECTION 11: Toxicological information****11.1 Information on toxicological effects:****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****64-19-7 acetic acid**

Oral LD50 3310 mg/kg (rat)

Dermal LD50 1060 mg/kg (rabbit)

Primary irritant effect:**Skin corrosion/irritation**

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):****Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.**SECTION 12: Ecological information****12.1 Toxicity:****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment:**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods:****Recommendation:**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.02.2016

Revision: 04.02.2016

Trade name: Binding Optimizer

(Contd. of page 5)

European waste catalogue:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number:**

ADR, IMDG, IATA

UN2790

14.2 UN proper shipping name:

ADR

2790 ACETIC ACID SOLUTION

IMDG

ACETIC ACID SOLUTION

IATA

Acetic acid solution

14.3 Transport hazard class(es):

ADR, IMDG, IATA

**Class:**

8 Corrosive substances.

Label:

8

14.4 Packing group:

ADR, IMDG, IATA

III

14.5 Environmental hazards:**Marine pollutant:**

No

14.6 Special precautions for user:

Warning: Corrosive substances.

Danger code (Kemler):

80

EMS Number:

F-A,S-B

Segregation groups:

Acids

Stowage Category

A

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information:**ADR****Limited quantities (LQ):**

5L

Transport category:

3

Tunnel restriction code:

E

UN "Model Regulation":

UN 2790 ACETIC ACID SOLUTION, 8, III

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

H226 Flammable liquid and vapour.

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Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 04.02.2016

Revision: 04.02.2016

Trade name: Binding Optimizer

(Contd. of page 6)

H314 Causes severe skin burns and eye damage.

Department issuing SDS:

ADEEGO GmbH

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D-42113 Wuppertal

Tel. +49 (0) 202 2575700

Fax. +49 (0) 202 2575701

Email: mail@adeego.de

www.adeego.de

Contact: Dr. Axel Deeg**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Washing Solution LS

21 / May / 2014

Manufacturer:

AJ Innuscreen GmbH
 Robert-Rössle-Straße 10
 13125 Berlin/ Germany
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English

Per OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC:1005, 1008(1999)] and the latest amendments to the European Union Directives 67/548/EC, 1999/45/EC and 1272/2008/EC, the following products do not require a Material Safety Data Sheet (MSDS). Skin-sensitizing, carcinogenic, and reprotoxic substances each comprise less than 0.1% of these products. Furthermore, less than 1% w/w of these products consists of materials that are classed as hazardous to human health or to the environment, or for which a Community limit value has been established. These products also contain no components from the Candidate List of Substances of Very High Concern for Authorisation (SVHC) in concentrations of 0.1% or more. Therefore Analytik Jena AG does not provide a MSDS for any of the following products. However, when working with these or any chemical reagents, we always recommend the use of gloves, lab coats, and eye protection. Analytik Jena AG assumes no liability for damage resulting from handling or contact with these products.

German

Nach OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC:1005, 1008(1999)] und den neuesten Änderungen der Europäischen Richtlinien 67/548/EG, 1999/45/EG und 1272/2008/EG benötigen die folgenden Produkte kein Sicherheitsdatenblatt (MSDS). Sie enthalten weniger als 0,1 % eines hautallergenen Stoffes, weniger als 0,1 % eines karzinogenen Stoffes, weniger als 0,1 % eines reproduktionstoxischen Stoffes, des Weiteren weniger als 1 Gewichts-% eines als gesundheitsschädlich oder umweltgefährlich eingestuft oder mit einem gemeinschaftlichen Grenzwert versehenen Stoffes und enthalten keine Komponenten von der Liste „Candidate list of Substances of Very High Concern for authorisation“ (SVHC) in einer Konzentration größer/gleich 0,1 %. Deshalb stellt Analytik Jena AG kein MSDS für die folgenden Produkte zur Verfügung. Wir empfehlen jedoch beim Umgang mit unseren Produkten oder mit Chemikalien das Tragen von Sicherheitsbrillen, Kitteln und Schutzhandschuhen. Analytik Jena AG übernimmt keine Haftung resultierend aus dem Umgang oder Kontakt mit unseren Produkten.

French

En accord avec la directive OSHA 29CFR1910.1200 du Commonwealth d'Australie [NOHSC:1005, 1008(1999)] et les dernières modifications des directives de la Communauté Européenne 67/548/CE, 1999/45/CE et 1272/2008/CE, les produits suivants ne nécessitent pas de fiche de données de sécurité (FDS). Ils contiennent moins de 0,1 % d'une substance provoquant des allergies cutanées, moins de 0,1 % d'une substance cancérigène, moins de 0,1 % d'une substance toxique pour la reproduction, en outre moins de 1 % en poids d'une substance classée comme dangereuse pour la santé ou pour l'environnement ou ayant une valeur limite commune et ils ne contiennent aucun composé de la liste « Candidate list of Substances of Very High Concern for authorisation » (SVHC) dans une concentration supérieure ou égale à 0,1 %. Par conséquent, Analytik Jena AG ne fournit pas de FDS pour les produits suivants. Toutefois, lors de la manipulation de ces produits ou d'autres produits chimiques, le port d'une blouse, de gants de protection et de lunettes de sécurité est obligatoire. Analytik Jena AG décline toute responsabilité en cas de dommages découlant de la manipulation ou du contact avec ces produits.

Italian

Conformemente alle norme sulla Comunicazione dei Rischi della OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC: 1005, 1008 (1999)] e ai successivi emendamenti alle Direttive Europee 67/548/CE, 1999/45/CE e 1272/2008/CE, i seguenti prodotti non richiedono la scheda di sicurezza (MSDS) in quanto contengono una quantità inferiore allo 0,1% di una sostanza dermoallergenica, una quantità inferiore allo 0,1% di una sostanza cancerogena, una quantità inferiore allo 0,1% di una sostanza tossica per la riproduzione. Inoltre, contengono una quantità inferiore all'1% in peso di una sostanza classificata come nociva per la salute o pericolosa per l'ambiente o di una sostanza soggetta ad un valore limite comunitario e non contengono alcuno dei componenti dell'elenco "Candidate list of Substances of Very High Concern for authorisation" (SVHC, ossia Elenco di sostanze estremamente problematiche candidate per l'autorizzazione) in una concentrazione pari o superiore allo 0,1%. Per questo motivo, Analytik Jena AG non fornisce alcuna scheda di dati sicurezza per i seguenti prodotti. Ciononostante, quando si lavora con questi o qualsiasi altro prodotto chimico è sempre consigliabile utilizzare guanti protettivi, camici adeguati e occhiali protettivi. Analytik Jena AG non si assume alcuna responsabilità per danni a cose e/o persone derivanti dall'uso e dal contatto con questi prodotti.

Washing Solution LS

21 / May / 2014

Manufacturer:

AJ Innuscreen GmbH
 Robert-Rössle-Straße 10
 13125 Berlin/ Germany
 Phone: +49 (0) 36 41 / 77-94 00
 Fax: +49 (0) 36 41 / 77-76 77 76

Distribution:

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Danish

I følge Commonwealth of Australia OSHA 29CFR1910.1200 [NOHSC:1005,1008 (999)] og det seneste tillæg til EU-direktiv 67/548/EF, 1999/45/EF og 1272/2008/EF kræver følgende produkter ikke sikkerhedsdatablad. De indeholder mindre end 0,1 % af et hudallergent stof, mindre end 0,1 % af et karcinogent stof, mindre end 0,1 % af et reproduktionstoksisk stof samt mindre end 1 % m/m af et stof klassificeret som sundhedsskadeligt eller miljøfarligt eller forsynet med en EU-grænseværdi og indeholder ingen komponenter fra listen "Candidate list of substances of very high concern for authorisation" (SVHC) i en koncentration på 0,1 % eller højere. Derfor leverer Analytik Jena AG intet sikkerhedsdatablad for nedenstående produkter. Vi anbefaler imidlertid altid brug af beskyttelsehandsker, kittel og øjenværn ved omgang med disse og andre kemikalier. Analytik Jena AG påtager sig intet ansvar for skader, der opstår ved brug af disse produkter.

Dutch

Volgens de richtlijnen van OSHA29CFR1920.1200, Commonwealth of Australia, [NOHSC:1005, 1008(1999)] en de laatste wijzigingen van de Europese Richtlijnen 67/548/EG, 1999/45/EG en 1272/2008/EG, is voor de volgende producten geen veiligheidsgegevensblad (MSDS) nodig. Ze bevatten minder dan 0,1% van een huidallergene stof, minder dan 0,1% van een carcinogene stof, minder dan 0,1% van een reproductietoxische stof, en verder minder dan 1 gewichts-% van een als schadelijk voor de gezondheid of het milieu geclassificeerde of van een gemeenschappelijke grenswaarde voorziene stof en bevatten geen componenten uit de lijst "Candidate list of Substances of Very High Concern for authorisation" (SVHC) in een concentratie groter dan/gelijk aan 0,1%. Daarom stelt Analytik Jena AG voor de volgende producten geen veiligheidsgegevensblad ter beschikking. Desalniettemin raden we voor het werken met deze chemische reagentia altijd het dragen van handschoenen, labjassen en veiligheidsbrillen aan. Analytik Jena AG stelt zich niet aansprakelijk voor schade die voortkomt uit het gebruik van of het contact met deze producten.

Portuguese

Segundo a OSHA 29CFR1910.1200, a Comunidade da Austrália [NOHSC:1005, 1008(1999)] e as mais recentes alterações das diretivas da União Europeia 67/548/CE, 1999/45/CE e 1272/2008/CE, os seguintes produtos não requerem uma ficha de dados de segurança (FDS). Eles contêm menos de 0,1% de uma substância sensibilizante para a pele, menos de 0,1% de uma substância carcinogénea, menos de 0,1% de uma substância tóxica para a reprodução, além disso, contêm menos de 1% de peso de uma substância classificada como nociva e perigosa para o ambiente ou uma substância sujeita a um limite comunitário, e não contêm componentes da lista "Candidate list of Substances of Very High Concern for authorisation" (SVHC) (Lista de Substâncias Candidatas a Autorização que Suscitam Elevada Preocupação) numa concentração superior/igual a 0,1%. Por conseguinte, a Analytik Jena AG não disponibiliza nenhuma FDS para os seguintes produtos. Todavia, durante o manuseamento dos nossos produtos, recomendamos o uso de óculos e luvas de proteção, e batas de laboratório. A Analytik Jena AG não assume qualquer responsabilidade que resulte do manuseamento ou do contacto com os nossos produtos.

Spanish

Por OSHA 29CFR1910.1200, la Mancomunidad de Australia [NOHSC:1005, 1008(1999)] y por las últimas enmiendas a las directrices de la Unión Europea 67/548/CE, 1999/45/CE y 1272/2008/CE, los siguientes productos no requieren de una Hoja de Seguridad (MSDS). Contienen menos de un 0,1% de una sustancia dermoalérgica, menos de un 0,1% de una sustancia cancerígena y menos de un 0,1% de una sustancia con toxicidad reproductiva, así como menos de un 1% en peso de una sustancia clasificada como nociva para la salud o peligrosa para el medio ambiente o para la que existan límites de exposición comunitarios, y no contienen ningún componente incluido en la «lista de sustancias candidatas altamente preocupantes sujetas a autorización» (SVHC) en concentración igual ni superior al 0,1%. Por consiguiente, Analytik Jena AG no proporciona una MSDS para ninguno de los siguientes productos. Sin embargo, cuando se trabaje con estos o cualquier reactivo químico, siempre recomendamos el uso de guantes, batas para laboratorio y protección de ojos. Analytik Jena AG no asume ninguna responsabilidad por daño causado por el uso o contacto con estos productos.

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2017

Revision: 05.04.2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Buffer ERB

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

No further relevant information available.

Application of the substance / the preparation: Laboratory chemicals

Uses advised against: No further information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

AJ Innuscreen GmbH
Biotechnologie Campus Berlin-Buch
Robert-Rössle-Straße 10
13125 Berlin
Germany
Tel.: +49 (0) 30 9489-3380
Fax: +49 (0) 30 9489-3381
E-Mail: info@aj-innuscreen.de
Internet: www.aj-innuscreen.de

Further information obtainable from: AJ Innuscreen GmbH

1.4 Emergency telephone number:

Poison Information Center / Vergiftungs-Informations-Zentrale
Mathildenstraße 1
79106 Freiburg
Germany
Tel.: +49 (0) 761 19 240
Fax: +49 (0) 761 270 44 570
E-Mail: giftinfo@uniklinik-freiburg.de
Internet: www.giftberatung.de

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS05

Signal word: Warning

Hazard statements:

H290 May be corrosive to metals.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

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Safety data sheet

according to 1907/2006/EC, Article 31

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Trade name: Buffer ERB

(Contd. of page 1)



P234 Keep only in original container.

P390 Absorb spillage to prevent material damage.

P406 Store in corrosive resistant container with a resistant inner liner.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards:**Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 7647-01-0 hydrochloric acid <2.5%
EINECS: 231-595-7  Met. Corr.1, H290; Skin Corr. 1B, H314;  Acute Tox. 4, H302; Acute Tox. 4, H312; STOT SE 3, H335

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

After inhalation: Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

After swallowing: Call a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media:****Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:**

Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters:**Protective equipment:** Do not inhale explosion gases or combustion gases.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation.

Wear protective clothing.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

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Safety data sheet

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Printing date 05.04.2017

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Trade name: Buffer ERB

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6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage**7.1 Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Store in cool, dry place in tightly closed receptacles.

Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:**

Do not store together with alkalis (caustic solutions).

Store away from foodstuffs.

Further information about storage conditions: Keep container tightly sealed.**7.3 Specific end use(s):** No further relevant information available.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:****7647-01-0 hydrochloric acid**WEL Short-term value: 8 mg/m³, 5 ppmLong-term value: 2 mg/m³, 1 ppm

(gas and aerosol mists)

8.2 Exposure controls:**Personal protective equipment:****General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.**Protection of hands:** Protective gloves**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

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Trade name: Buffer ERB

(Contd. of page 3)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

General Information:

Appearance:

Form:	Fluid
Colour:	Clear
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.

Change in condition:

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

Flash point: Not applicable.

Flammability (solid, gas): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure: Not determined.

Density: Not determined.

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with water:

Soluble.

Partition coefficient: n-octanol/water: Not determined.

Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity: No further relevant information available.

10.2 Chemical stability:

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions: No dangerous reactions known.

10.4 Conditions to avoid: No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: Hydrogen chloride (HCl)

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Safety data sheet

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Trade name: Buffer ERB

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SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity Based on available data, the classification criteria are not met.

Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

European waste catalogue:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number:

ADR, IMDG, IATA

UN1789

14.2 UN proper shipping name:

ADR

1789 HYDROCHLORIC ACID

IMDG, IATA

HYDROCHLORIC ACID

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Safety data sheet

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Printing date 05.04.2017

Revision: 05.04.2017

Trade name: Buffer ERB

(Contd. of page 5)

14.3 Transport hazard class(es):**ADR, IMDG, IATA**

Class:	8 Corrosive substances.
Label:	8
14.4 Packing group:	
ADR, IMDG, IATA	III
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user:	Warning: Corrosive substances.
Danger code (Kemler):	80
EMS Number:	F-A,S-B
Segregation groups:	Acids
Stowage Category	B
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

Transport/Additional information:**ADR**

Limited quantities (LQ):	5L
Transport category:	3
Tunnel restriction code:	E
UN "Model Regulation":	UN 1789 HYDROCHLORIC ACID, 8, III

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

H290 May be corrosive to metals.
 H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H335 May cause respiratory irritation.

Training hints:

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

Department issuing SDS:

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Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 05.04.2017

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Trade name: Buffer ERB

(Contd. of page 6)

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D-42113 Wuppertal
Tel. +49 (0) 202 2575700
Fax. +49 (0) 202 2575701
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Contact: Dr. Axel Deeg**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Met. Corr. 1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Elution Buffer

15 / May / 2014

Manufacturer:

AJ Innuscreen GmbH
 Robert-Rössle-Straße 10
 13125 Berlin/ Germany
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English

Per OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC:1005, 1008(1999)] and the latest amendments to the European Union Directives 67/548/EC, 1999/45/EC and 1272/2008/EC, the following products do not require a Material Safety Data Sheet (MSDS). Skin-sensitizing, carcinogenic, and reprotoxic substances each comprise less than 0.1% of these products. Furthermore, less than 1% w/w of these products consists of materials that are classed as hazardous to human health or to the environment, or for which a Community limit value has been established. These products also contain no components from the Candidate List of Substances of Very High Concern for Authorisation (SVHC) in concentrations of 0.1% or more. Therefore Analytik Jena AG does not provide a MSDS for any of the following products. However, when working with these or any chemical reagents, we always recommend the use of gloves, lab coats, and eye protection. Analytik Jena AG assumes no liability for damage resulting from handling or contact with these products.

German

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French

En accord avec la directive OSHA 29CFR1910.1200 du Commonwealth d'Australie [NOHSC:1005, 1008(1999)] et les dernières modifications des directives de la Communauté Européenne 67/548/CE, 1999/45/CE et 1272/2008/CE, les produits suivants ne nécessitent pas de fiche de données de sécurité (FDS). Ils contiennent moins de 0,1 % d'une substance provoquant des allergies cutanées, moins de 0,1 % d'une substance cancérigène, moins de 0,1 % d'une substance toxique pour la reproduction, en outre moins de 1 % en poids d'une substance classée comme dangereuse pour la santé ou pour l'environnement ou ayant une valeur limite commune et ils ne contiennent aucun composé de la liste « Candidate list of Substances of Very High Concern for authorisation » (SVHC) dans une concentration supérieure ou égale à 0,1 %. Par conséquent, Analytik Jena AG ne fournit pas de FDS pour les produits suivants. Toutefois, lors de la manipulation de ces produits ou d'autres produits chimiques, le port d'une blouse, de gants de protection et de lunettes de sécurité est obligatoire. Analytik Jena AG décline toute responsabilité en cas de dommages découlant de la manipulation ou du contact avec ces produits.

Italian

Conformemente alle norme sulla Comunicazione dei Rischi della OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC: 1005, 1008 (1999)] e ai successivi emendamenti alle Direttive Europee 67/548/CE, 1999/45/CE e 1272/2008/CE, i seguenti prodotti non richiedono la scheda di sicurezza (MSDS) in quanto contengono una quantità inferiore allo 0,1% di una sostanza dermoallergenica, una quantità inferiore allo 0,1% di una sostanza cancerogena, una quantità inferiore allo 0,1% di una sostanza tossica per la riproduzione. Inoltre, contengono una quantità inferiore all'1% in peso di una sostanza classificata come nociva per la salute o pericolosa per l'ambiente o di una sostanza soggetta ad un valore limite comunitario e non contengono alcuno dei componenti dell'elenco "Candidate list of Substances of Very High Concern for authorisation" (SVHC, ossia Elenco di sostanze estremamente problematiche candidate per l'autorizzazione) in una concentrazione pari o superiore allo 0,1%. Per questo motivo, Analytik Jena AG non fornisce alcuna scheda di dati sicurezza per i seguenti prodotti. Ciononostante, quando si lavora con questi o qualsiasi altro prodotto chimico è sempre consigliabile utilizzare guanti protettivi, camici adeguati e occhiali protettivi. Analytik Jena AG non si assume alcuna responsabilità per danni a cose e/o persone derivanti dall'uso e dal contatto con questi prodotti.

Elution Buffer

15 / May / 2014

Manufacturer:

AJ Innuscreen GmbH
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 13125 Berlin/ Germany
 Phone: +49 (0) 36 41 / 77-94 00
 Fax: +49 (0) 36 41 / 77-76 77 76

Distribution:

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 Konrad-Zuse-Straße 1
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Danish

I følge Commonwealth of Australia OSHA 29CFR1910.1200 [NOHSC:1005,1008 (999)] og det seneste tillæg til EU-direktiv 67/548/EF, 1999/45/EF og 1272/2008/EF kræver følgende produkter ikke sikkerhedsdatablad. De indeholder mindre end 0,1 % af et hudallergent stof, mindre end 0,1 % af et karcinogent stof, mindre end 0,1 % af et reproduktionstoksisk stof samt mindre end 1 % m/m af et stof klassificeret som sundhedsskadeligt eller miljøfarligt eller forsynet med en EU-grænseværdi og indeholder ingen komponenter fra listen "Candidate list of substances of very high concern for authorisation" (SVHC) i en koncentration på 0,1 % eller højere. Derfor leverer Analytik Jena AG intet sikkerhedsdatablad for nedenstående produkter. Vi anbefaler imidlertid altid brug af beskyttelsehandsker, kittel og øjenværn ved omgang med disse og andre kemikalier. Analytik Jena AG påtager sig intet ansvar for skader, der opstår ved brug af disse produkter.

Dutch

Volgens de richtlijnen van OSHA29CFR1920.1200, Commonwealth of Australia, [NOHSC:1005, 1008(1999)] en de laatste wijzigingen van de Europese Richtlijnen 67/548/EG, 1999/45/EG en 1272/2008/EG, is voor de volgende producten geen veiligheidsgegevensblad (MSDS) nodig. Ze bevatten minder dan 0,1% van een huidallergene stof, minder dan 0,1% van een carcinogene stof, minder dan 0,1% van een reproductietoxische stof, en verder minder dan 1 gewichts-% van een als schadelijk voor de gezondheid of het milieu geclassificeerde of van een gemeenschappelijke grenswaarde voorziene stof en bevatten geen componenten uit de lijst "Candidate list of Substances of Very High Concern for authorisation" (SVHC) in een concentratie groter dan/gelijk aan 0,1%. Daarom stelt Analytik Jena AG voor de volgende producten geen veiligheidsgegevensblad ter beschikking. Desalniettemin raden we voor het werken met deze chemische reagentia altijd het dragen van handschoenen, labjassen en veiligheidsbrillen aan. Analytik Jena AG stelt zich niet aansprakelijk voor schade die voortkomt uit het gebruik van of het contact met deze producten.

Portuguese

Segundo a OSHA 29CFR1910.1200, a Comunidade da Austrália [NOHSC:1005, 1008(1999)] e as mais recentes alterações das diretivas da União Europeia 67/548/CE, 1999/45/CE e 1272/2008/CE, os seguintes produtos não requerem uma ficha de dados de segurança (FDS). Eles contêm menos de 0,1% de uma substância sensibilizante para a pele, menos de 0,1% de uma substância carcinogénea, menos de 0,1% de uma substância tóxica para a reprodução, além disso, contêm menos de 1% de peso de uma substância classificada como nociva e perigosa para o ambiente ou uma substância sujeita a um limite comunitário, e não contêm componentes da lista "Candidate list of Substances of Very High Concern for authorisation" (SVHC) (Lista de Substâncias Candidatas a Autorização que Suscitam Elevada Preocupação) numa concentração superior/igual a 0,1%. Por conseguinte, a Analytik Jena AG não disponibiliza nenhuma FDS para os seguintes produtos. Todavia, durante o manuseamento dos nossos produtos, recomendamos o uso de óculos e luvas de proteção, e batas de laboratório. A Analytik Jena AG não assume qualquer responsabilidade que resulte do manuseamento ou do contacto com os nossos produtos.

Spanish

Por OSHA 29CFR1910.1200, la Mancomunidad de Australia [NOHSC:1005, 1008(1999)] y por las últimas enmiendas a las directrices de la Unión Europea 67/548/CE, 1999/45/CE y 1272/2008/CE, los siguientes productos no requieren de una Hoja de Seguridad (MSDS). Contienen menos de un 0,1% de una sustancia dermoalérgica, menos de un 0,1% de una sustancia cancerígena y menos de un 0,1% de una sustancia con toxicidad reproductiva, así como menos de un 1% en peso de una sustancia clasificada como nociva para la salud o peligrosa para el medio ambiente o para la que existan límites de exposición comunitarios, y no contienen ningún componente incluido en la «lista de sustancias candidatas altamente preocupantes sujetas a autorización» (SVHC) en concentración igual ni superior al 0,1%. Por consiguiente, Analytik Jena AG no proporciona una MSDS para ninguno de los siguientes productos. Sin embargo, cuando se trabaje con estos o cualquier reactivo químico, siempre recomendamos el uso de guantes, batas para laboratorio y protección de ojos. Analytik Jena AG no asume ninguna responsabilidad por daño causado por el uso o contacto con estos productos.