

**10 / Dec / 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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Konrad-Zuse-Straße 1  
07745 Jena/ Germany  
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Summary - Material Safety Data Sheet

**Product: innuPREP Virus DNA/RNA Kit-  
IPC16**

Summary may be subject to change – please inquire for update!

## Carrier Mix

22 / May / 2014

**Manufacturer:**

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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.

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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 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 09.12.2014

Revision: 09.12.2014

### 1 Identification of the substance/mixture and of the company/undertaking

#### Product identifier

**Trade name:** Content of InnuPure® C16 Strips/Plate B

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

No further relevant information available.

**Application of the substance / the preparation:** Buffer

**Uses advised against:** No further information available.

#### 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

##### 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

### 2 Hazards identification

#### Classification of the substance or mixture:

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



GHS02 flame

Flam. Liq. 2      H225 Highly flammable liquid and vapour.



GHS05 corrosion

Skin Corr. 1B      H314 Causes severe skin burns and eye damage.

Eye Dam. 1      H318 Causes serious eye damage.



GHS07

Acute Tox. 4      H302 Harmful if swallowed.

Acute Tox. 4      H312 Harmful in contact with skin.

Acute Tox. 4      H332 Harmful if inhaled.

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

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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Trade name: Content of InnuPure® C16 Strips/Plate B

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**Classification according to Directive 67/548/EEC or Directive 1999/45/EC:**

C; Corrosive

R34: Causes burns.



Xn; Harmful

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.



F; Highly flammable

R11: Highly flammable.

R32-52/53: Contact with acids liberates very toxic gas. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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

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

**Hazard pictograms:**

GHS02 GHS05 GHS07

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

guanidinium thiocyanate

ethanol

**Hazard statements:**

H225 Highly flammable liquid and vapour.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H314 Causes severe skin burns and 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.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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.

P405 Store locked up.

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

**Additional information:**

EUH032 Contact with acids liberates very toxic gas.

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**Other hazards:****Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 593-84-0 EINECS: 209-812-1	guanidinium thiocyanate C R34; Xn R20/21/22 R32-52/53 Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Aquatic Chronic 3, H412	25-50%
CAS: 64-17-5 EINECS: 200-578-6	ethanol F R11 Flam. Liq. 2, H225	50-100%
CAS: 9002-93-1	polyethylene glycol octylphenol ether Xn R22; Xi R41 Eye Dam. 1, H318; Acute Tox. 4, H302	25-50%

**SVHC:**

9002-93-1 polyethylene glycol octylphenol ether

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

### 4 First aid measures

**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.**Information for doctor:****Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

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

No further relevant information available.

### 5 Firefighting measures

**Extinguishing media:****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**Special hazards arising from the substance or mixture:** Can form explosive gas-air mixtures.

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**Trade name: Content of InnuPure® C16 Strips/Plate B**

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

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation  
Keep away from ignition sources.  
Wear protective clothing.

**Environmental precautions:** Do not allow product to reach sewage system or any water course.**Methods and material for containment and cleaning up:**

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

**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.

### 7 Handling and storage

**Handling:****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.  
Fumes can combine with air to form an explosive mixture.  
Flammable gas-air mixtures may form in empty receptacles.

**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 acids.  
Store away from flammable substances.

**Further information about storage conditions:**

Keep container tightly sealed.  
Store receptacle in a well ventilated area.

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

### 8 Exposure controls/personal protection

**Additional information about design of technical facilities:** No further data; see item 7.**Control parameters:****Ingredients with limit values that require monitoring at the workplace:****64-17-5 ethanol**WEL Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm**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

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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

## 9 Physical and chemical properties

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

<b>Form:</b>	Fluid
<b>Colour:</b>	Clear
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	Not determined.

**Change in condition:**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.

**Flash point:** < 21 °C**Flammability (solid, gaseous):** Not applicable.**Ignition temperature:** 425 °C**Decomposition temperature:** Not determined.**Self-igniting:** Product is not selfigniting.**Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.**Explosion limits:**

<b>Lower:</b>	3.5 Vol %
<b>Upper:</b>	15.0 Vol %

**Vapour pressure at 20 °C:** 59 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.

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**Viscosity:**  
**Dynamic:** Not determined.  
**Kinematic:** Not determined.  
**Other information:** No further relevant information available.

### 10 Stability and reactivity

**Reactivity:**  
**Chemical stability:**  
**Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.  
**Possibility of hazardous reactions:** No dangerous reactions known.  
**Conditions to avoid:** No further relevant information available.  
**Incompatible materials:** No further relevant information available.  
**Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

**Information on toxicological effects:**  
**Acute toxicity:**  
**LD/LC50 values relevant for classification:**  
**593-84-0 guanidinium thiocyanate**  
Oral LD50 593 mg/kg (rat)  
**Primary irritant effect:**  
**on the skin:** Caustic effect on skin and mucous membranes.  
**on the eye:** Strong caustic effect.  
**Sensitisation:** No sensitising effects known.

### 12 Ecological information

**Toxicity:**  
**Aquatic toxicity:** No further relevant information available.  
**Persistence and degradability:** No further relevant information available.  
**Behaviour in environmental systems:**  
**Bioaccumulative potential:** No further relevant information available.  
**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.  
**Results of PBT and vPvB assessment:**  
**PBT:** Not applicable.  
**vPvB:** Not applicable.  
**Other adverse effects:** No further relevant information available.

### 13 Disposal considerations

**Waste treatment methods:**  
**Recommendation:**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

**UN-Number:**  
**ADR, IMDG, IATA** UN2924  
**UN proper shipping name:**  
**ADR** 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S.  
 (ETHANOL (ETHYL ALCOHOL), guanidinium thiocyanate)  
**IMDG** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ETHANOL  
 (ETHYL ALCOHOL), guanidinium thiocyanate)  
**IATA** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ETHANOL,  
 guanidinium thiocyanate)

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

**Class:** 3 Flammable liquids.  
**Label:** 3+8  
**Packing group:**  
**ADR, IMDG, IATA** II  
**Environmental hazards:**  
**Marine pollutant:** No  
**Special precautions for user:** Warning: Flammable liquids.  
**EMS Number:** F-E,S-C  
**Transport in bulk according to Annex II of  
 MARPOL73/78 and the IBC Code** Not applicable.

**Transport/Additional information:****ADR**

**Tunnel restriction code:** D/E  
**UN "Model Regulation":** UN2924, FLAMMABLE LIQUID, CORROSIVE, N.O.S.  
 (ETHANOL (ETHYL ALCOHOL), guanidinium thiocyanate), 3  
 (8), II

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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:**

H225 Highly flammable liquid and vapour.  
 H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.

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H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.
R11	Highly flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R22	Harmful if swallowed.
R32	Contact with acids liberates very toxic gas.
R34	Causes burns.
R41	Risk of serious damage to eyes.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Department issuing MSDS:**

ADEEGO GmbH  
Wildsteig 4A  
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  
Flam. Liq. 2: Flammable liquids, Hazard Category 2  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1  
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 21.08.2014

Revision: 21.08.2014

## 1 Identification of the substance/mixture and of the company/undertaking

### Product identifier

**Trade name:** Lysis Solution RL**Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information available.

**Application of the substance / the preparation:** Buffer**Uses advised against:** No further information available.**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**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

## 2 Hazards identification

**Classification of the substance or mixture:****Classification according to Regulation (EC) No 1272/2008:**

GHS05 corrosion

Skin Corr. 1B      H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4      H302 Harmful if swallowed.  
Acute Tox. 4      H312 Harmful in contact with skin.  
Acute Tox. 4      H332 Harmful if inhaled.

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

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC:**

C; Corrosive

R34: Causes burns.



Xn; Harmful

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## Safety data sheet

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Printing date 21.08.2014

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**Trade name: Lysis Solution RL**

(Contd. of page 1)

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R32-52/53: Contact with acids liberates very toxic gas. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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

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

**Hazard pictograms:**

GHS05 GHS07

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

guanidinium thiocyanate

**Hazard statements:**

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H314 Causes severe skin burns and 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.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

P405 Store locked up.

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

**Additional information:**

EUH032 Contact with acids liberates very toxic gas.

**Other hazards:****Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.

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## Safety data sheet

according to 1907/2006/EC, Article 31





Printing date 21.08.2014

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**Trade name: Lysis Solution RL**

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**Dangerous components:**

CAS: 593-84-0 guanidinium thiocyanate 25-50%  
EINECS: 209-812-1  C R34;  Xn R20/21/22  
R32-52/53  
 Skin Corr. 1B, H314;  Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Aquatic Chronic 3, H412

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

### 4 First aid measures

**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.

Call a doctor immediately.

**After eye contact:**

Rinse opened eye for several minutes under running water.

Call a doctor immediately.

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

No further relevant information available.

**Hazards:** Danger of gastric perforation.**Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

### 5 Firefighting measures

**Extinguishing media:****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**Special hazards arising from the substance or mixture:**

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

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

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Wear protective clothing.

Use respiratory protective device against the effects of fumes/dust/aerosol.

**Environmental precautions:** Do not allow product to reach sewage system or any water course.**Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

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

**Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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## Safety data sheet

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**Trade name: Lysis Solution RL**

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See Section 13 for disposal information.

### 7 Handling and storage

**Handling:****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:** No special measures required.**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 acids.**Further information about storage conditions:**

Keep container tightly sealed.

Store receptacle in a well ventilated area.

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

### 8 Exposure controls/personal protection

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

**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.

Do not inhale gases / fumes / aerosols.

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

### 9 Physical and chemical properties

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

<b>Form:</b>	Fluid
<b>Colour:</b>	Clear
<b>Odour:</b>	Characteristic

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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Trade name: Lysis Solution RL

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<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	Not determined.
<b>Change in condition:</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	100 °C
<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
<b>Self-igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapour pressure at 20 °C:</b>	23 hPa
<b>Density:</b>	Not determined.
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Soluble.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Other information:</b>	No further relevant information available.

## 10 Stability and reactivity

**Reactivity:**

**Chemical stability:**

**Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.

**Possibility of hazardous reactions:** Develops toxic gases/fumes.

**Conditions to avoid:** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**Information on toxicological effects:**

**Acute toxicity:**

**LD/LC50 values relevant for classification:**

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**593-84-0 guanidinium thiocyanate**

Oral LD50 593 mg/kg (rat)

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## Safety data sheet

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Trade name: Lysis Solution RL

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**Primary irritant effect:****on the skin:** Caustic effect on skin and mucous membranes.**on the eye:** Strong caustic effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

## 12 Ecological information

**Toxicity:****Aquatic toxicity:** No further relevant information available.**Persistence and degradability:** No further relevant information available.**Behaviour in environmental systems:****Bioaccumulative potential:** No further relevant information available.**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.

**Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects:** No further relevant information available.

## 13 Disposal considerations

**Waste treatment methods:****Recommendation:**

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

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

**UN-Number:****ADR, IMDG, IATA**

UN1760

**UN proper shipping name:****ADR**

1760 CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate)

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

CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate)

**ADR, IMDG, IATA****Class:**

8 Corrosive substances.

**Label:**

8

**Packing group:****ADR, IMDG, IATA**

III

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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**Trade name: Lysis Solution RL**

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**Environmental hazards:****Marine pollutant:**

No

**Special precautions for user:**

Warning: Corrosive substances.

**EMS Number:**

F-A,S-B

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**UN "Model Regulation":**

UN1760, CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate), 8, III

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H332 Harmful if inhaled.

H412 Harmful to aquatic life with long lasting effects.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R32 Contact with acids liberates very toxic gas.

R34 Causes burns.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Department issuing MSDS:**

ADEEGO GmbH

Wildsteig 4A

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 Harmonized 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

Acute Tox. 4: Acute toxicity, Hazard Category 4

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

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

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 09.05.2014

Revision: 09.05.2014

### 1 Identification of the substance/mixture and of the company/undertaking

**Product identifier****Trade name:** Proteinase K**Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information available.

**Application of the substance / the preparation:** Enzyme**Uses advised against:** No further information available.**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**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

### 2 Hazards identification

**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.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC:**

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.



Xn; Sensitising

R42: May cause sensitisation by inhalation.

(Contd. on page 2)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 09.05.2014

Revision: 09.05.2014

**Trade name: Proteinase K**

(Contd. of page 1)

**Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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

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

**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.

P362 Take off contaminated clothing and wash before reuse.

P405 Store locked up.

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

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

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: 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 Xi R36/37/38; Xn R42

Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319

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

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## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.05.2014

Revision: 09.05.2014

Trade name: Proteinase K

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### 4 First aid measures

**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.**Information for doctor:****Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

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

No further relevant information available.

### 5 Firefighting measures

**Extinguishing media:****Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**Special hazards arising from the substance or mixture:** No further relevant information available.**Advice for firefighters:****Protective equipment:** Do not inhale explosion gases or combustion gases.

### 6 Accidental release measures

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

### 7 Handling and storage

**Handling:****Precautions for safe handling:** Store in cool, dry place in tightly closed receptacles.**Information about fire - and explosion protection:** No special measures required.**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.**Specific end use(s):** No further relevant information available.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 09.05.2014

Revision: 09.05.2014

Trade name: Proteinase K

(Contd. of page 3)

## 8 Exposure controls/personal protection

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

**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.

**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

## 9 Physical and chemical properties

**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.

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## Safety data sheet

according to 1907/2006/EC, Article 31

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**Trade name: Proteinase K**

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<b>Vapour pressure:</b>	Not applicable.
<b>Density:</b>	Not determined.
<b>Relative density:</b>	Not determined.
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Soluble.
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Other information:</b>	No further relevant information available.

### 10 Stability and reactivity

**Reactivity:**  
**Chemical stability:**  
**Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.  
**Possibility of hazardous reactions:** No dangerous reactions known.  
**Conditions to avoid:** No further relevant information available.  
**Incompatible materials:** No further relevant information available.  
**Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

**Information on toxicological effects:**  
**Acute toxicity:**  
**Primary irritant effect:**  
**on the skin:** Irritant to skin and mucous membranes.  
**on the eye:** Strong irritant with the danger of severe eye injury.  
**Sensitization:**  
Sensitization possible through skin contact.  
Sensitization possible through inhalation.

### 12 Ecological information

**Toxicity:**  
**Aquatic toxicity:** No further relevant information available.  
**Persistence and degradability:** No further relevant information available.  
**Behaviour in environmental systems:**  
**Bioaccumulative potential:** No further relevant information available.  
**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.  
**Results of PBT and vPvB assessment:**  
**PBT:** Not applicable.  
**vPvB:** Not applicable.

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## Safety data sheet

according to 1907/2006/EC, Article 31

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**Trade name: Proteinase K**

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**Other adverse effects:** No further relevant information available.

### 13 Disposal considerations

**Waste treatment methods:****Recommendation:**

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

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

**UN-Number:**

ADR, ADN, IMDG, IATA Void

**UN proper shipping name:**

ADR, ADN, IMDG, IATA Void

**Transport hazard class(es):**

ADR, ADN, IMDG, IATA

**Class:** Void**Packing group:**

ADR, IMDG, IATA Void

**Environmental hazards:****Marine pollutant:** No**Special precautions for user:** Not applicable.**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.**UN "Model Regulation":** -

### 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 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.

H319 Causes serious eye irritation.

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

R36/37/38 Irritating to eyes, respiratory system and skin.

R42 May cause sensitisation by inhalation.

**Department issuing MSDS:**

ADEEGO GmbH

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42113 Wuppertal

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

Printing date 09.05.2014

Revision: 09.05.2014

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**Trade name: Proteinase K**

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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 Harmonized 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)

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

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# RNase-free Water

15 / May / 2014

**Manufacturer:**

AJ Innuscreen GmbH  
 Robert-Rössle-Straße 10  
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**Distribution:**

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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.

Product information

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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.