

Manufacturer

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Summary

Material Safety Data Sheet

Product: **innuPREP RNA Kit – IPC16**

Ref. No.: 845-IPS-4116016
845-IPS-4116096
845-IPP-4116016
845-IPP-4116096
845-IPP-4116480

Dec. 04, 17

Material Safety Data

English

Per OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC:1005, 1008(1999)] and the latest amendments to the European Union Directives 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.

Deutsch

Nach OSHA 29CFR1910.1200, Commonwealth of Australia [NOHSC:1005, 1008(1999)] und den neuesten Änderungen der Europäischen Richtlinien 1272/2008/EG benötigen die folgenden Produkte kein Sicherheitsdatenblatt (MSDS). Sie enthalten weniger als 0,1 % eines hautallergenem 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 eingestuftem 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.

Française

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 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.

Italiano

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 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.

Material Safety Data

Dansk

I følge Commonwealth of Australia OSHA 29CFR1910.1200 [NOHSC:1005,1008 (999)] og det seneste tillæg til EU-direktiv 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.

Nederlands

Volgens de richtlijnen van OSHA29CFR1920.1200, Commonwealth of Australia, [NOHSC:1005, 1008(1999)] en de laatste wijzigingen van de Europese Richtlijnen 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.

Português

Segundo a OSHA 29CFR1910.1200, a Comunidade da Austrália [NOHSC:1005, 1008(1999)] e as mais recentes alterações das diretivas da União Europeia 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.

Español

Por OSHA 29CFR1910.1200, la Mancomunidad de Australia [NOHSC:1005, 1008(1999)] y por las últimas enmiendas a las directrices de la Unión Europa 1272/2008/CE, los siguientes productos no requieren de una Hoja de Seguridad (MSDS). Contienen menos de un 0,1% de una sustancia dermoalergénica, 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 06.04.2017

Revision: 06.04.2017

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

1.1 Product identifier

Trade name: Lysis Solution RP

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:

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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

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.

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.

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Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.04.2017

Revision: 06.04.2017

Trade name: Lysis Solution RP

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Hazard pictograms:

GHS05 GHS07

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

guanidinium thiocyanate

Hazard statements:

H302 Harmful if swallowed.

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 dusts or mists.

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.

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: 593-84-0 | guanidinium thiocyanate | 25-50% |
| EINECS: 209-812-1 | ⚠ 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 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.

Call a doctor immediately.

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Trade name: Lysis Solution RP

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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:**

Wear protective clothing.

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

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.

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:**

Do not store together with acids.

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.

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Trade name: Lysis Solution RP

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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: | 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:

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.

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Trade name: Lysis Solution RP

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| | |
|--|--|
| 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: Contact with acids releases toxic gases.

10.4 Conditions to avoid: No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:

Poisonous gases/vapours

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity

Harmful if swallowed.

LD/LC50 values relevant for classification:

593-84-0 guanidinium thiocyanate

Oral LD50 593 mg/kg (rat)

Primary irritant effect:

Skin corrosion/irritation

Causes severe skin burns and eye damage.

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.

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Safety data sheet

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Trade name: Lysis Solution RP

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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.

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

ADR, IMDG, IATA

UN1760

14.2 UN proper shipping name:

ADR

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

IMDG, IATA

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

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

Stowage Category

A

Stowage Code

SW2 Clear of living quarters.

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

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Safety data sheet

according to 1907/2006/EC, Article 31

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Trade name: Lysis Solution RP

UN "Model Regulation":(Contd. of page 6)
UN 1760 CORROSIVE LIQUID, N.O.S. (GUANIDINIUM THIOCYANATE), 8, III

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**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.

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.

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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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

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

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

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

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: Content of 16 Strips/Plate 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
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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:



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

STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements:

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

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

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2017

Revision: 05.04.2017

Trade name: Content of 16 Strips/Plate K

(Contd. of page 1)

Hazard pictograms:

GHS02 GHS05 GHS07

Signal word: Danger**Hazard-determining components of labelling:**guanidinium thiocyanate
propan-2-ol**Hazard statements:**H225 Highly flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H336 May cause drowsiness or dizziness.**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.

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: 64-17-5 | ethanol | 50-100% |
| EINECS: 200-578-6 | ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319 | |
| CAS: 67-63-0 | propan-2-ol | 10-25% |
| EINECS: 200-661-7 | ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336 | |
| CAS: 593-84-0 | guanidinium thiocyanate | 10-25% |
| EINECS: 209-812-1 | ⚠ 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 hazard phrases refer to section 16.

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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:

Can form explosive gas-air mixtures.

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.

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

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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 acids.

Store away from oxidising agents.

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:****64-17-5 ethanol**WEL Long-term value: 1920 mg/m³, 1000 ppm**67-63-0 propan-2-ol**WEL Short-term value: 1250 mg/m³, 500 ppmLong-term value: 999 mg/m³, 400 ppm**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

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.

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| | |
|---|---|
| pH-value: | Not determined. |
| Change in condition: | |
| Melting point/freezing point: | Undetermined. |
| Initial boiling point and boiling range: | Undetermined. |
| Flash point: | < 21 °C |
| Flammability (solid, gas): | Not applicable. |
| Ignition temperature: | 425 °C |
| Decomposition temperature: | Not determined. |
| Auto-ignition temperature: | Product is not selfigniting. |
| Explosive properties: | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| Explosion limits: | |
| Lower: | 2.0 Vol % |
| Upper: | 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. |
| 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:

Forms explosive gas mixture with air.

Contact with acids releases toxic gases.

10.4 Conditions to avoid: No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:

Flammable gases/vapours

Poisonous gases/vapours

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

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

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LD/LC50 values relevant for classification:**593-84-0 guanidinium thiocyanate**

Oral LD50 593 mg/kg (rat)

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

Causes severe skin burns and eye damage.

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**

May cause drowsiness or dizziness.

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.

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

ADR, IMDG, IATA

UN2924

14.2 UN proper shipping name:

ADR

2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(guanidinium thiocyanate, ETHANOL (ETHYL
ALCOHOL))

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IMDG

FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(guanidinium thiocyanate, ETHANOL (ETHYL
ALCOHOL))

IATA

FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(guanidinium thiocyanate, ETHANOL)

14.3 Transport hazard class(es):

ADR



Class:

3 Flammable liquids.

Label:

3+8

IMDG



Class:

3 Flammable liquids.

Label:

3/8

IATA



Class:

3 Flammable liquids.

Label:

3 (8)

14.4 Packing group:

ADR, IMDG, IATA

II

14.5 Environmental hazards:

Marine pollutant:

No

14.6 Special precautions for user:

Warning: Flammable liquids.

Danger code (Kemler):

338

EMS Number:

F-E,S-C

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):

1L

Transport category:

2

Tunnel restriction code:

D/E

UN "Model Regulation":

UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(GUANIDINIUM THIOCYANATE, ETHANOL (ETHYL
ALCOHOL)), 3 (8), II

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

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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:

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

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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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. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
