

MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Renilla GLOW-Juice BIG KIT 102532

Name	Description	Amount	Symbol
Renilla GLOW-Juice	Buffer for screening with Luciferases from <i>Renilla reniformis</i>	1	---
Coelenterazine (CTZ)	Substrate	1	---
Reconstruction buffer	for dissolving the lyophilisated Coelenterazine	1	F
Lysis-Juice 2	2x concentrated Cell Lysis Reagent	2	---

Renilla GLOW-Juice SMALL KIT 102533

Name	Description	Amount	Symbol
Renilla GLOW-Juice	Buffer for screening with Luciferases from <i>Renilla reniformis</i>	5	---
Coelenterazine (CTZ)	Substrate	5	---
Reconstruction buffer	for dissolving the lyophilisated Coelenterazine	5	F
Lysis-Juice 2	2x concentrated Cell Lysis Reagent	2	---

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MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier:**Trade name:** Renilla GLOW-Juice**Article number:** 102532/102533**Application of the substance / the preparation**

Laboratory Chemicals

Details of the supplier of the safety data sheet**Manufacturer/Supplier:**

PJK GmbH

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Germany

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Further information obtainable from: Department Health, Safety and Environment**Emergency telephone number:** Poison Centre Munich Telefon

+49/(0)89 19240

2. HAZARDS IDENTIFICATION

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

The product is not classified according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC not applicable**Information concerning particular hazards for human and environment:**

The product does not have 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 expanded upon by technical literature/supplier company information.

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

4. FIRST AID MEASURES

General information: No special measures required.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If symptoms persist consult doctor.

5. FIREFIGHTING MEASURES

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.**Special hazards arising from the substance or mixture** Not known

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Not required.**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.**Methods and material for containment and cleaning up:**

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

Reference to other sections

No dangerous substances are released.

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TRADE NAME: RENILLA GLOW-JUICE

7 HANDLING AND STORAGE

Handling:

Precautions for safe handling No special measures required.

Information about protection against explosions and fires: The product is not flammable.

Storage: +4°C

Requirements to be met by storerooms and receptacles: No special requirements.

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

Additional information: The lists valid during the making were used as basis.

Exposure controls

Personal protective equipment

General protective and hygienic measures

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

Respiratory protection: Not required.

Protection of hands:

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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: Goggles recommended during refilling.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance:

Form: Fluid

Color: Colorless

Odor: Characteristic

Odour threshold: Not determined.

pH-value at 20°C (68 °F): alkaline

Change in condition

Melting point/Melting range: 0°C (32 °F)

Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

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

Explosion limits:

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TRADE NAME: RENILLA GLOW-JUICE

Lower: Not determined.

Upper: Not determined.

Vapor pressure: Not determined.

Density: Not determined.

Relative density Not determined.

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

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

Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Solvent content:

Organic solvents: 0.0 %

Water: 95.2 %

Other information No further relevant information available.

10. STABILITY AND REACTIVITY

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

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

LD/LC50 values that are relevant for classification: No data available

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12. Ecological information

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment

Persistence and degradability Not available

Behaviour in environmental systems:

Bioaccumulative potential Not known

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Not 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.

Other adverse effects No further relevant information available.

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TRADE NAME: RENILLA GLOW-JUICE

13. Disposal considerations

Waste treatment methods

Recommendation

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14. Transport information

DOT regulations: Not regulated

Hazard class: -

Land transport ADR/RID (cross-border): Not regulated

DOT regulations: Not regulated

Hazard class: -

Land transport ADR/RID (cross-border): Not regulated

15. Regulatory information

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

National regulations

Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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

16. Other information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PJK shall not be held liable for any damage resulting from handling or from contact with the above product.

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1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier:

Trade name: *Coelenterazine*

Article number: 102532/102533

Application of the substance / the preparation

Laboratory Chemicals

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

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Further information obtainable from: Department Health, Safety and Environment

Emergency telephone number: Poison Centre Munich Telefon

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The substance is not classified according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC not applicable

Information concerning particular hazards for human and environment: not applicable

Classification system:

The classification is according to the latest editions of the EU-lists, and expanded upon by technical literature/supplier company information.

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

Label elements

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

Hazard pictograms Void

Signal word Void

Hazard statements Void

Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals

The substance is not subject to classification according to EU lists and other sources of literature known to us.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Substances

CAS No. Description: 55779-48-1 coelenterazine

4. FIRST AID MEASURES

Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If symptoms persist consult doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed None

Indication of any immediate medical attention and special treatment needed

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TRADE NAME: COELENTERAZINE

No further relevant information available.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture *None known*

Advice for firefighters *No special advice.*

Protective equipment: *No special measures required*

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures *Not required.*

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

Methods and material for containment and cleaning up:

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

No dangerous substances are released.

7 HANDLING AND STORAGE

Handling

Precautions for safe handling *No special measures required.*

Information about fire - and explosion protection: *The product is not flammable*

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles: *No special requirements.*

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.*

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: *Not required.*

Additional information: *The lists valid during the making were used as basis.*

Exposure controls

Personal protective equipment

General protective and hygienic measures

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

Respiratory protection: *Not required.*

Protection of hands:

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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.

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: *Goggles recommended during refilling.*

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance:

Form: *lyophilised*

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TRADE NAME: COELENTERAZINE

Color: yellow

Odor: Characteristic

Odour threshold: Not determined.

pH-value at 20°C (68 °F): Not determined

Change in condition

Melting point/Melting range: 130°C

Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

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

Explosion limits:

Lower: Not determined.

Upper: Not determined.

Vapor pressure: Not determined.

Density: Not determined.

Relative density Not determined.

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

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

Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Solvent content:

Organic solvents: 0.0 %

Water: 0%

Other information No further relevant information available.

10. STABILITY AND REACTIVITY

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

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

LD/LC50 values that are relevant for classification: No data available

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

The substance is not subject to classification according to the latest version of the EU lists.

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment

Persistence and degradability Not available

Behaviour in environmental systems:

Bioaccumulative potential Not known

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TRADE NAME: COELENTERAZINE

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Not 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.

Other adverse effects No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

DOT regulations: Not regulated

Hazard class: -

Land transport ADR/RID (cross-border): Not regulated

DOT regulations: Not regulated

Hazard class: -

Land transport ADR/RID (cross-border): Not regulated

15. REGULATORY INFORMATION

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

National regulations

Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PJK shall not be held liable for any damage resulting from handling or from contact with the above product.

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1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier:

Trade name: Reconstruction Buffer

Article number: 102532/102533

Application of the substance / the preparation

Laboratory Chemicals

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

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Further information obtainable from: Department Health, Safety and Environment

Emergency telephone number: Poison Centre Munich Telefon

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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.

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

F; Highly flammable

R11: Highly flammable.

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 expanded upon by technical literature/supplier company information.

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

Label elements

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

Code letter and hazard designation of product:

F Highly flammable

Risk phrases:

11 Highly flammable.

Safety phrases:

7/9 Keep container tightly closed and in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

60 This material and its container must be disposed of as hazardous waste.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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MATERIAL SAFETY DATA SHEET

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TRADE NAME: RECONSTRUCTION BUFFER

3. COMPOSITION / INFORMATION ON INGREDIENTS

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

CAS: 64-17-5	ethanol	F R11	50%
EINECS: 200-578-6		Flam. Liq. 2, H225	

4. FIRST AID MEASURES

Description of first aid measures**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** Call for a doctor immediately.**Information for doctor:****Most important symptoms and effects, both acute and delayed**

Headache

Dizziness

Dizziness

Nausea#

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIREFIGHTING MEASURES

Extinguishing media**Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.**Special hazards arising from the substance or mixture** None known**Advice for firefighters** In the case of fire, wear respiratory protective equipment and chemical protective suit.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

Wear protective clothing.

Environmental precautions:

Prevent seepage into sewage system, workpits and cellars.

Dilute with plenty of water.

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

Methods and material for containment and cleaning up:

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

Ensure adequate ventilation.

7 HANDLING AND STORAGE

Handling**Precautions for safe handling** Use only in well ventilated areas.**Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities**Storage****Requirements to be met by storerooms and receptacles:** Store in a cool location.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:**

Keep receptacle tightly sealed.

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TRADE NAME: RECONSTRUCTION BUFFER

Store in cool, dry conditions in well sealed receptacles.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: *No further data*

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

Additional information: *The lists valid during the making were used as basis.*

Exposure controls

Personal protective equipment

General protective and hygienic measures *Wash hands before breaks and at the end of work.*

Respiratory protection: *Not required.*

Protection of hands:

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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: *Fluid*

Colour: *Colourless*

Odour: *Characteristic*

Odour threshold: *Not determined.*

pH-value: *Not determined.*

Change in condition

Melting point/Melting range: *undetermined*

Boiling point/Boiling range: *undetermined*

Flash point: *≤ 21°C*

Flammability (solid, gaseous) *Not applicable.*

Ignition temperature: *400°C*

Decomposition temperature: *Not determined.*

Self-igniting: *Product is not selfigniting.*

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

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower: *0.9 Vol %*

Upper: *15.0 Vol %*

Vapour pressure at 20°C: *59 hPa*

Density at 20°C: *0.86 g/cm³*

Relative density *Not determined.*

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TRADE NAME: RECONSTRUCTION BUFFER

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water: Fully miscible

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

Viscosity:

dynamic: Not determined.

kinematic: Not determined.

Solvent content:

Organic solvents: 99.8 %

Solids content: 0.1 %

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

Reacts with alkaline metals

Reacts with inorganic acid chlorides

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: Carbon monoxide and carbon dioxide

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification: No data available

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment

Persistence and degradability Not available

Behaviour in environmental systems:

Bioaccumulative potential Not known

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Not 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.

Other adverse effects No further relevant information available.

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TRADE NAME: RECONSTRUCTION BUFFER

13. Disposal considerations

Waste treatment methods

Recommendation

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. Transport information

Land transport ADR/RID (cross-border)

ADR/RID class: 3 (F1) Flammable liquids.

Danger code (Kemler): 33

UN-Number: 1170

Packaging group: II

Hazard label 3

UN proper shipping name: 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

Tunnel restriction code D/E

Maritime transport IMDG:

IMDG Class: 3

UN Number: 1170

Label 3

Packaging group: II

EMS Number: F-E,S-D

Marine pollutant: No

Proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 3

UN/ID Number: 1170

Label 3

Packaging group: II

Proper shipping name: ETHANOL SOLUTION

UN "Model Regulation": UN1170, ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

Special precautions for user Warning: Flammable liquids.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

15. Regulatory information

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

National regulations

Class Share in %

NK 99.8

Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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

16. Other information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PJK shall not be held liable for any damage resulting from handling or from contact with the above product.

PJK GmbH

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MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier:**Trade name:** 2x Lysis-Juice 2**Article number:** 102532/102533**Application of the substance / the preparation**

Laboratory Chemicals

Details of the supplier of the safety data sheet**Manufacturer/Supplier:**

PJK GmbH

Elseasser Strasse 51

66271 Kleinblittersdorf

Germany

Phone: +49 (0)6805 91 20 22

Fax: +49 (0)6805 91 20 24

info@pjk-gmbh.com

Further information obtainable from: Department Health, Safety and Environment**Emergency telephone number:** Poison Centre Munich Telefon

+49/(0)89 19240

2. HAZARDS IDENTIFICATION

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

The product is not classified according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC not applicable**Information concerning particular hazards for human and environment:**

The product does not have 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 expanded upon by technical literature/supplier company information.

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

4. FIRST AID MEASURES

General information: No special measures required.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If symptoms persist consult doctor.

5. FIREFIGHTING MEASURES

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.**Special hazards arising from the substance or mixture** Not known

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Not required.**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.**Methods and material for containment and cleaning up:**

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

Reference to other sections

No dangerous substances are released.

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MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

TRADE NAME: 2X LYSIS-JUICE 2

7 HANDLING AND STORAGE

Handling:

Precautions for safe handling No special measures required.

Information about protection against explosions and fires: The product is not flammable.

Storage: +4°C

Requirements to be met by storerooms and receptacles: No special requirements.

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

Additional information: The lists valid during the making were used as basis.

Exposure controls

Personal protective equipment

General protective and hygienic measures

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

Respiratory protection: Not required.

Protection of hands:

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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: Goggles recommended during refilling.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance:

Form: Fluid

Color: Colorless

Odor: Characteristic

Odour threshold: Not determined.

pH-value at 20°C (68 °F): alkaline

Change in condition

Melting point/Melting range: 0°C (32 °F)

Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

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

Explosion limits:

Lower: Not determined.

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MATERIAL SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

TRADE NAME: 2X LYSIS-JUICE 2

Upper: Not determined.

Vapor pressure: Not determined.

Density: Not determined.

Relative density Not determined.

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

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

Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

Solvent content:

Organic solvents: 0.0 %

Water: 95.2 %

Other information No further relevant information available.

10. STABILITY AND REACTIVITY

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

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

LD/LC50 values that are relevant for classification: No data available

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12. Ecological information

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment

Persistence and degradability Not available

Behaviour in environmental systems:

Bioaccumulative potential Not known

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Not 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.

Other adverse effects No further relevant information available.

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TRADE NAME: 2X LYSIS-JUICE 2

13. Disposal considerations

Waste treatment methods

Recommendation

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14. Transport information

DOT regulations: Not regulated

Hazard class: -

Land transport ADR/RID (cross-border): Not regulated

DOT regulations: Not regulated

Hazard class: -

Land transport ADR/RID (cross-border): Not regulated

15. Regulatory information

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

National regulations

Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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