

Safety data sheet

according to 1907/2006/EC, Article 31

Print date: 04.08.2020

Updated: 04.08.2020

Version: 1



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

1.1 Product identifier

– Trade name: EXTRACTME RNA BACTERIA & YEAST KIT

– Article number: EM25.1

– Components: RYBL Buffer, RYS Buffer, RYLM Buffer, RNA Extraction Enhancer, RYBW1 Buffer, RYBW2 Buffer, REB

1.2 Relevant identified uses of the substance or mixture and uses advised against: *no data available*

– Application of the substance / the preparation: *Laboratory chemistry*

1.3 Details of the supplier of the safety data sheet

– Manufacturer/supplier:

BLIRT S.A.

Trzy Lipy 3/1.38

80-172, Gdansk

Poland

orders@blirt.eu

Tel. +48 58 739 61 50

1.4 Emergency telephone number:

+48 58 739 61 50 (*Inside normal business hours*)

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Safety data sheet

according to 1907/2006/EC, Article 31

Print date: 04.08.2020

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Version: 1



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

1.1 Product identifier

– Trade name: *RYLM Buffer, RNA Extraction Enhancer, RYS Buffer, REB*

– Hazardous components: *none*

1.2 Relevant identified uses of the substance or mixture and uses advised against: *no data available*

– Application of the substance / the preparation: *Laboratory chemistry*

1.3 Details of the supplier of the safety data sheet

– Manufacturer/supplier:

BLIRT S.A.

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1.4 Emergency telephone number:

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2. Hazards identification

2.1 Classification of the substance or mixture

– Classification according to Regulation (EC) No 1272/2008: *Not a hazardous mixture according to Regulation (EC) No. 1272/2008.*

2.2 Label elements

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

The mixture is not classified and labelled according to the CLP regulation.

– Hazard pictograms: *Not applicable*

– Signal word: *Not applicable*

– Hazard-determining components of labelling: *Not applicable*

– Hazard statements: *Not applicable*

– Precautionary statement(s): *Not applicable*

2.3 Other hazards

RNA Extraction Enhancer: **EUH208** Contains Proteinase K. May produce an allergic reaction.

RYLM Buffer: **EUH208** Contains Lyticase. May produce an allergic reaction.

3. Composition/information on ingredients

3.2 Chemical characterization: Mixture (RYLM Buffer, RNA Extraction Enhancer, REB, RYS Buffer)

a) RYS Buffer

Dangerous ingredients:		
CAS: 6381-92-6 EINECS: 613-386-6	EDTA Acute Tox. 4, H332; STOT RE 2, H373	0-10 %

b) RYLM Buffer

Dangerous ingredients:		
CAS: 373340-57-1	Lyticase Resp. Sens. 1, H334	0-10 %

c) RNA Extraction Enhancer

Dangerous ingredients:		
CAS: 39450-01-6 EINECS: 254-457-8	Proteinase K Skin Irrit. 2, H315; Eye Irrit. 2, H319; Resp. Sens. 1, H334; STOT SE 3 H335	0-10 %

4. First aid measures

4.1 Description of first aid measures

- **General information:** No special measures required.
- **After inhalation:** Supply fresh air.
- **After skin contact:** Wash with water. If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Rinse out mouth. If symptoms persist consult doctor.

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.

5. Firefighting measures

5.1 Extinguishing media

– **Suitable extinguishing agents:** water, CO₂, foam, powder. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

– **In case of fire, the following can be released:** No further relevant information available

5.3 Advise for firefighters

– **Protective equipment:** *Wear self-contained respiratory protective device.*

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: *Avoid mixture contact.*

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

6.3 Methods and material for containment and cleaning up: *Pick up mechanically. Clean up affected area. Dispose of the material collected according to regulations.*

6.4 Reference to other sections

See section 7 for information for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for disposal information.

7. Handling and storage

7.1 Precautions for safe handling: *No special precautions are necessary if used correctly.*

7.2 Conditions for safe storage, including any incompatibilities

– **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:** *Keep container sealed.*

– **Recommended storage temperature:**

-20°C (RYLM, RNA Extraction Enhancer),

15-25°C (REB, RYS Buffer)

– **Storage class:** *10-13*

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

8. Exposure controls/personal protection

8.1 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.*

8.2 Exposure controls

– **Personal protective equipment:**

• **General protective and hygienic measures:** *Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.*

• **Respiratory protection:** *No further relevant information available.*

• **Protection of hands:**

Protective gloves – *the glove material has to be impermeable and resistant to the product/the substance/the preparation.*

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

- **Material of gloves:** the selection of 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 observed.
- **For the permanent contact gloves made of the following materials are suitable:** Nitrile rubber, NBR. Recommended thickness of the material $\geq 0,11$ mm. Value for the permeation: Level ≥ 480 min.
- **Eye protection:** Safety glasses.
- **Body protection:** Protective work clothing. Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

– Appearance:

Form: *Liquid*

9.2 Other information: *No further relevant information available*

10. Stability and reactivity

10.1 Reactivity: *No data available.*

10.2 Chemical stability: *No data available.*

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

10.3 Possibility of hazardous reaction: *No dangerous reactions known.*

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

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

10.6 Hazardous decomposition product: *No further relevant information available.*

11. Toxicological information

11.1 Information on toxicological effects

- Acute toxicity:

• *Inhalation/Respiratory: $ATE_{mix} > 20$ (RYS Buffer)*

– Primary irritant effect:

• **On the skin:** *No data available.*

• **On the eye:** *No data available.*

– Sensitization: *No sensitizing effects known.*

12. Ecological information

12.1 Toxicity: *no data 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*

12.5 Results of PBT and vPvB: *not applicable*

12.6 Other adverse effects: *no further relevant information available*

13. Disposal considerations

13.1 Waste treatment methods

- **Recommendation:** *Chemicals must be disposed of in compliance with the respective national regulations. 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.*
- **Recommended cleansing agents:** *Water, if necessary together with cleansing agents.*

14. Transport information

14.1 UN-Number:

- **ADR, ADN, IMDG, IATA:** *not dangerous goods/not applicable*

14.2 UN proper shipping name:

- **ADR, ADN, IMDG, IATA:** *not dangerous goods/not applicable*

14.3 Transport hazard class(es):

- **ADR, ADN, IMDG, IATA:** *not dangerous goods/not applicable*
- **Class:** *not dangerous goods/not applicable*

14.4 Packing group:

- **ADR, IMDG, IATA:** *not dangerous goods/not applicable*

14.5 Environmental hazards:

- **Marine pollutant:** *No*

14.6 Special precautions for users: *not applicable*

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: *not applicable*

- **Transport/additional information:** *not dangerous according to the above specifications.*
- **UN „Model Regulation“:** *not dangerous goods/not applicable*

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: *not applicable*

15.2 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.

Safety data sheet

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Updated: 04.08.2020

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

1.1 Product identifier

– Trade name: **RYBL Buffer**

– Hazardous components: Guanidine thiocyanate, N-Lauroylsarcosine sodium

– CAS number: 593-84-0 (Guanidine thiocyanate), 137-16-6 (N-Lauroylsarcosine sodium)

– EC number: 209-812-1 (Guanidine thiocyanate), 205-281-5 (N-Lauroylsarcosine sodium)

1.2 Relevant identified uses of the substance or mixture and uses advised against: *no data available*

– Application of the substance / the preparation: *Laboratory chemistry*

1.3 Details of the supplier of the safety data sheet

– Manufacturer/supplier:

BLIRT S.A.

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2. Hazards identification

2.1 Classification of the substance or mixture

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



GHS06

Acute Tox. 3 H331 Toxic if inhaled..

2.2 Label elements

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

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

– Hazard pictograms:



– Signal word: *Danger*

– Hazard-determining components of labeling: *Guanidinium thiocyanate, N-Lauroylsarcosine sodium*

– Hazard statements:

H331 Toxic if inhaled.

– Precautionary statement(s):

Prevention:

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

Response:

P304+P340 P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

2.3 Other hazards

EUH032 *Contact with acids liberates very toxic gas.*

EUH208: *Contains N-Lauroylsarcosine sodium. May produce an allergic reaction.*

3. Composition/information on ingredients

3.2 Chemical characterization: *Mixture*

<i>Dangerous ingredients:</i>		
CAS: 593-84-0 EINECS: 209-812-1	<i>Guanidine thiocyanate</i> Acute Tox. 4, H302; Acute Tox. 4 H312; Acute Tox. 4, H332; Aquatic Chronic 3, H412	20-30 %
CAS: 137-16-6 EINECS: 205-281-5	<i>N-Lauroylsarcosine sodium</i> Acute Tox. 1, H330; Skin Irrit 2, H315; Eye Dam. 1, H318; Skin Sens 1, H317	0-10%

4. First aid measures

4.1 Description of first aid measures

– **After inhalation:** *Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.*

– **After skin contact:** *Wash with soap and plenty of water. Immediately remove any clothing soiled by the product. Seek medical treatment.*

– **After eye contact:** *Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*

– **After swallowing:** *make victim drink water (maximum of 2 drinking glasses). Seek medical treatment.*

4.2 Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in 11

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

No further relevant information available.

5. Firefighting measures

5.1 Extinguishing media

– **Suitable extinguishing agents:** *water spray, CO₂ or powder. Fight larger fires with water spray or alcohol resistant foam.*

5.2 Special hazards arising from the substance or mixture

– **Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released:** *Nitrogen oxides (NO_x), carbon oxides (CO, CO₂), sulfur oxides (SO₂, SO₃...)*

5.3 Advise for firefighters

– **Protective equipment:** *Wear self-contained respiratory protective device.*

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: *Do not inhale.*

Mount respiratory protective device. Avoid mixture contact. Ensure adequate ventilation.

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

6.3 Methods and material for containment and cleaning up: *Pick up mechanically. Dispose of the material collected according to regulations. Ensure adequate ventilation. Clean up affected area.*

6.4 References to others 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

7.1 Precautions for safe handling: *Ensure good ventilation/exhaustion at the workplace.*

7.2 Conditions for safe storage, including any incompatibilities

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

– **Information about storage in one common storage facility:** *Do not store with acids.*

– **Further information about storage conditions:** *Keep container sealed.*

– **Recommended storage temperature:** **15-25°C**

– **Storage class:** *10-13*

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

8. Exposure controls/personal protection

8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:** *Not required.*
- **Additional information:** *Not applicable.*

8.2 Exposure controls

- **Personal protective equipment:**

- **General protective and hygienic measures:** *Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Change contaminated clothing.*

- **Respiratory protection:** *In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Filter P3.*

- **Protection of hands:**

Protective gloves – *the glove material has to be impermeable and resistant to the product/the substance/the preparation.*

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

- **Material of gloves:** *the selection of 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 observed.*

- **For the permanent contact gloves made of the following materials are suitable:** *Nitrile rubber, NBR. Recommended thickness of the material $\geq 0,11$ mm. Value for the permeation: Level ≥ 480 min.*

- **Eye protection:** *Safety glasses.*

- **Body protection:** *Protective work clothing. Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.*

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

- **Appearance:**

Form: *Liquid*

9.2 Other information: *No further relevant information available.*

10. Stability and reactivity

10.1 Reactivity: *No data available.*

10.2 Chemical stability: *No data available.*

- **Thermal decomposition/conditions to be avoided:** *No further relevant information available.*

10.3 Possibility of hazardous reaction: *Contact with acids liberates very toxic gas.*

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

10.5 Incompatible materials: *Acids*

10.6 Hazardous decomposition product: *See chapter 5.*

11. Toxicological information

11.1 Information on toxicological effects

- **Acute toxicity:**

• *Oral/Ingestion: $ATE_{mix} > 2000$*

• *Inhalation/Respiratory: $ATE_{mix} = 8,23$*

• *Dermal/Skin: $ATE_{mix} > 2000$*

- **Primary irritant effect:**

• *On the skin: No data available*

• *On the eye: No data available*

- **Sensitization:** *No sensitizing effects known.*

12. Ecological information

12.1 Toxicity: *No data 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.*

12.5 Results of PBT and vPvB: *Not applicable.*

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

General notes: *Water hazard class 2: hazardous for water. Do not allow to enter waters, waste water or soil.*

13. Disposal considerations

13.1 Waste treatment methods

- **Recommendation:** *Chemicals must be disposed of in compliance with the respective national regulations. 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.*

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

14. Transport information

14.1 UN-Number:

• *ADR, ADN, IMDG, IATA: not dangerous goods/not applicable*

14.2 UN proper shipping name:

• *ADR, ADN, IMDG, IATA: not dangerous goods/not applicable*

14.3 Transport hazard class(es):

• *ADR, ADN, IMDG, IATA not dangerous goods/not applicable*

- **Class:** *not dangerous goods/not applicable*

14.4 Packing group:

- **ADR, IMDG, IATA:** *not dangerous goods/not applicable*

14.5 Environmental hazards:

- **Marine pollutant:** *No*

14.6 Special precautions for users: *not applicable*

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: *not applicable*

- **Transport/additional information:** *not dangerous according to the above specifications.*
- **UN „Model Regulation“:** *not dangerous goods/not applicable*

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: *Not applicable.*

15.2 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.

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

1.1 Product identifier

- Trade name: **RYBW1 Buffer**
- Hazardous components: *Guanidine thiocyanate*
- CAS number: 593-84-0
- EC number: 209-812-1

1.2 Relevant identified uses of the substance or mixture and uses advised against: *no data available*

- Application of the substance / the preparation: *Laboratory chemistry*

1.3 Details of the supplier of the safety data sheet

- Manufacturer/supplier:

BLIRT S.A.

Trzy Lipy 3/1.38

80-172, Gdansk

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2. Hazards identification

2.1 Classification of the substance or mixture

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



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 mixture is classified and labelled according to the CLP regulation.

- Hazard pictograms:



- **Signal word:** *Warning*
- **Hazard-determining components of labeling:** *Guanidine thiocyanate*
- **Hazard statements:**

H302 Harmful if swallowed.

H412 Harmful to aquatic life with long lasting effect

- **Precautionary statement(s):**

Prevention:

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

Response:

P301+P312 P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

2.3 Other hazards

- EUH032** *Contact with acids liberates very toxic gas.*

3. Composition/information on ingredients

3.2 Chemical characterization: Mixture

Dangerous ingredients		
CAS: 593-84-0	<i>Guanidine thiocyanate</i>	<i>40-50 %</i>
EINECS: 209-812-1	Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Aquatic Chronic 3 H412	

4. First aid measures

4.1 Description of first aid measures

- **General information:** *No special measures required.*
- **After inhalation:** *Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.*
- **After skin contact:** *Wash with water. Immediately remove any clothing soiled by the product. Seek medical treatment.*
- **After eye contact:** *Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*
- **After swallowing:** *make victim drink water (maximum of 2 drinking glasses). Seek medical treatment.*

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.

5. Firefighting measures

5.1 Extinguishing media

– **Suitable extinguishing agents:** *water spray, CO₂ or powder. Fight larger fires with water spray or alcohol resistant foam.*

5.2 Special hazards arising from the substance or mixture

– **Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released:** *Nitrogen oxides (NO_x), carbon oxides (CO, CO₂), sulfur oxides (SO₂, SO₃...)*

5.3 Advise for firefighters

– **Protective equipment:** *Wear self-contained respiratory protective device.*

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: *Do not inhale. Avoid mixture contact. Ensure adequate ventilation.*

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

6.3 Methods and material for containment and cleaning up: *Pick up mechanically. Dispose of the material collected according to regulations. Ensure adequate ventilation. Clean up affected area.*

6.4 References to others 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

7.1 Precautions for safe handling: *Ensure good ventilation at the workplace.*

7.2 Conditions for safe storage, including any incompatibilities

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

– **Information about storage in one common storage facility:** *Do not store with acids.*

– **Further information about storage conditions:** *Keep container sealed.*

– **Recommended storage temperature:** **15-25°C**

– **Storage class:** *10-13*

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

8. Exposure controls/personal protection

8.1 Control parameters

– **Ingredients with limit values that require monitoring at the workplace:** *Not required.*

– **Additional information:** *Not applicable.*

8.2 Exposure controls

– **Personal protective equipment:**

- **General protective and hygienic measures:** *Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Change contaminated clothing.*
- **Respiratory protection:** *In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Filter P3.*
- **Protection of hands:**
Protective gloves – *the glove material has to be impermeable and resistant to the product/the substance/the preparation.*
– *Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation:*
 - **Material of gloves:** *the selection of 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 observed.*
 - **For the permanent contact gloves made of the following materials are suitable:** *Nitrile rubber, NBR. Recommended thickness of the material $\geq 0,11$ mm. Value for the permeation: Level ≥ 480 min.*
 - **Eye protection:** *Safety glasses.*
 - **Body protection:** *Protective work clothing. Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.*

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

– **Appearance:**

Form: *Liquid*

9.2 Other information: *No further relevant information available*

10. Stability and reactivity

10.1 Reactivity: *No data available.*

10.2 Chemical stability:

– **Thermal decomposition/conditions to be avoided:** *Light/strong heating.*

10.3 Possibility of hazardous reaction: *Contact with acids liberates very toxic gas.*

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

10.5 Incompatible materials: *Acids*

10.6 Hazardous decomposition product: *See chapter 5.*

11. Toxicological information

11.1 Information on toxicological effects

- **Acute toxicity:**

- *Oral/Ingestion: $ATE_{mix} = 1057$*
- *Inhalation/Respiratory: $ATE_{mix} > 20$*
- *Dermal/Skin: $ATE_{mix} > 2000$*

- **Primary irritant effect:**

- *On the skin: No irritant effect*
- *On the eye: No irritant effect*

- **Sensitization:** *No sensitizing effects known.*

12. Ecological information

12.1 **Toxicity:** *No data 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.*

12.5 **Results of PBT and vPvB:** *Not applicable.*

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

General notes: *Water hazard class 2: hazardous for water. Do not allow to enter waters, waste water or soil.*

13. Disposal considerations

13.1 Waste treatment methods

- **Recommendation:** *Chemicals must be disposed of in compliance with the respective national regulations. 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.*

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

14. Transport information

14.1 UN-Number:

- **ADR, ADN, IMDG, IATA:** *not dangerous goods/not applicable*

14.2 UN proper shipping name:

- **ADR, ADN, IMDG, IATA:** *not dangerous goods/not applicable*

14.3 Transport hazard class(es):

- **ADR, ADN, IMDG, IATA** *not dangerous goods/not applicable*
- **Class:** *not dangerous goods/not applicable*

14.4 Packing group:

- **ADR, IMDG, IATA:** *not dangerous goods/not applicable*

14.5 Environmental hazards:

- **Marine pollutant:** *No*

14.6 Special precautions for users: *not applicable*

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: *not applicable*

– **Transport/additional information:** *not dangerous according to the above specifications.*

– **UN „Model Regulation“:** *not dangerous goods/not applicable*

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: *Not applicable.*

15.2 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.

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

1.1 Product identifier

- Trade name: **RYBW2 Buffer**
- Hazardous components: *2-propanol*
- CAS number: *67-63-0 (2-propanol)*
- EC number: *200-661-7 (2-propanol)*

1.2 Relevant identified uses of the substance or mixture and uses advised against: *no data available*

– Application of the substance / the preparation: *Laboratory chemistry*

1.3 Details of the supplier of the safety data sheet

– Manufacturer/supplier:

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Tel. +48 58 739 61 50

1.4 Emergency telephone number:

+48 58 739 61 50 (Inside normal business hours)

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2. Hazards identification

2.1 Classification of the substance or mixture

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



GHS02

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



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

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

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

– Hazard pictograms



– Signal word: *Danger*

– Hazard statements:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

– Precautionary statement(s):

Prevention:

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

Response:

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

P304+P340 P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

2.3 Other hazards

Not applicable.

3. Composition/information on ingredients

3.2 Chemical characterization: *Mixture*

<i>Dangerous ingredients</i>		
CAS: 67-63-0	<i>2-propanol</i>	60-70%
EINECS: 200-661-7	<i>Flam. Liq. H225; Eye Irrit. 2 H319, STOT SE 3 H336</i>	

4. First aid measures

4.1 Description of first aid measures

– **General information:** *Consult with doctor.*

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

– **After skin contact:** *Wash with plenty of water.*

– **After eye contact:** *Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. Consult a doctor.*

– **After swallowing:** *Rinse out mouth. Do not induce vomiting, consult a doctor.*

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.

5. Firefighting measures

5.1 Extinguishing media

– **Suitable extinguishing agents:** *water spray, CO₂, foam, powder; fight larger fires with spray or alcohol resistant foam.*

5.2 Special hazards arising from the substance or mixture

– **Special hazard arising from the mixture:** *carbon oxides (CO, CO₂)*

5.3 Advise for firefighters

– **Protective equipment:** *Wear self-contained respiratory protective device.*

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: *Wear protective equipment. Keep unprotected persons away. Keep away from ignition sources. Avoid mixture contact.*

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

6.3 Methods and material for containment and cleaning up: *Absorb with liquid-binding material. Ensure adequate ventilation. Clean up affected area.*

6.4 References to others 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

7.1 Precautions for safe handling: *Keep receptacles tightly sealed*

– **Information about fire – and explosion protection:** *Keep ignition sources away – do not smoke. Protect against electrostatic charges.*

7.2 Conditions for safe storage, including any incompatibilities

– **Requirements to be met by storerooms and receptacles:** *Store in cool location. Provide acid-resistant floor.*

– **Information about storage in one common storage facility:** *Away from sources of ignition and heat.*

– **Further information about storage conditions:** *Keep container tightly sealed. Store in cool, dry conditions in well sealed receptacles.*

– **Recommended storage temperature:** **15-25°C**

– **Storage class:** 3

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

8. Exposure controls/personal protection

8.1 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.*

8.2 Exposure controls

- **Personal protective equipment:**

- **General protective and hygienic measures:** *Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid contact with the eyes and skin.*
- **Respiratory protection:** *Not required.*
- **Protection of hands:**
 - Protective gloves* – *the glove material has to be impermeable and resistant to the product/the substance/the preparation.*
 - *Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation:*
- **Material of gloves:** *the selection of 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 observed.*
- **For the permanent contact gloves made of the following materials are suitable:** *Nitrile rubber, NBR. Recommended thickness of the material $\geq 0,11$ mm. Value for the permeation: Level ≥ 480 min.*
- **Eye protection:** *Safety glasses.*
- **Body protection:** *Protective work clothing. Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.*

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

- **Appearance:**

Form: *Liquid*

9.2 Other information:

No further relevant information available

10. Stability and reactivity

10.1 Reactivity:

no data available

10.2 Chemical stability:

no data available

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

10.3 Possibility of hazardous reaction:

no dangerous reactions known

10.4 Conditions to avoid:

no further relevant information available

10.5 Incompatible materials:

no further relevant information available

10.6 Hazardous decomposition product: *See chapter 5*

11. Toxicological information

11.1 Information on toxicological effects

- **Primary irritant effect:**
 - **On the skin:** *No irritant effect.*
 - **On the eye:** *Irritant effect.*
- **Sensitization:** *No sensitizing effects known*

12. Ecological information

12.1 Toxicity: *No data 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.*

12.5 Results of PBT and vPvB: *Not applicable.*

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

- **General notes:** *Slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*

13. Disposal considerations

13.1 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

14.1 UN-Number:

- **ADR, ADN, IMDG, IATA:** *not dangerous goods/not applicable*

14.2 UN proper shipping name:

- **ADR, ADN, IMDG, IATA:** *not dangerous goods/not applicable*

14.3 Transport hazard class(es):

- **ADR, ADN, IMDG, IATA** *not dangerous goods/not applicable*
- **Class:** *not dangerous goods/not applicable*

14.4 Packing group:

- **ADR, IMDG, IATA:** *not dangerous goods/not applicable*

14.5 Environmental hazards:

- **Marine pollutant:** *No*

14.6 Special precautions for users: *not applicable*

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: *not applicable*

- **Transport/additional information:** *not dangerous according to the above specifications.*
- **UN „Model Regulation“:** *not dangerous goods/not applicable*

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: *Not applicable.*

15.2 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.