

Safety data sheet

according to 1907/2006/EC, Article 31

Print date: 12.04.2018

Updated: 12.04.2018

Version: 3



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

1.1 Product identifier

– Trade name: EXTRACTME DNA SWAB&SEMEN KIT

– Article number: EM06

Components: SSL Buffer, Proteinase K (lyophilized), Proteinase Buffer, DTT, SSB Buffer, SSW1 Buffer, SSW2 Buffer, Elution Buffer

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

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

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

1.1 Product identifier

– Trade name: SSL Buffer

– Hazardous components: *Tris, SDS, Triton X-100*

– CAS number: 77-86-1 (*Tris*), 151-21-3 (*SDS*), 9002-93-1 (*Triton X-100*)

– EC number: 201-064-4 (*Tris*), 205-788-1 (*SDS*)

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

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

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



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

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 labelling:** *none*
- **Hazard statements:**

H319 Causes serious eye irritation.

- **Precautionary statement(s):**

Prevention:

P264 Wash hands thoroughly after handling

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.

2.3 Other hazards

Not applicable.

3 Composition/information on ingredients

3.2 Chemical characterization: *Mixture*

<i>Dangerous ingredients:</i>		
CAS: 77-86-01	Tris	0-10%
EINEC: 201-064-4	Skin Irrit. 2, H315, Eye Irrit. 2, H319	
CAS: 151-21-3	Sodium dodecyl sulfate (SDS)	0-10 %
EINECS: 205-788-1	Flam. Sol. 1 H228, Acute Tox. 3, H311, Acute Tox. 4, H302, Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H335	
CAS: 9002-93-1	Triton X-100	0-10 %
	Acute Tox. 4, H303; Eye Dam. 1, H318; Aquatic Chronic 2, H411	

4 First aid measures

4.1 Description of first aid measures

- **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly. Immediately remove any clothing soiled by the product. If skin irritation continues, consult a doctor.*
- **After eye contact:** *Rinse opened eye for several minutes under running water. Call a doctor immediately.*
- **After swallowing:** *Make victim drink water (maximum of 2 glasses). Do not induce vomiting.*

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

5.3 Extinguishing media

– Suitable extinguishing agents: *water, CO₂, foam, powder.*

5.4 Special hazards arising from the substance or mixture

– Special hazard arising from the mixture: *Formation of toxic gases is possible during heating or in case of fire.*

5.5 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.*

Ensure adequate ventilation. 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 on safe handling.

See section 8 for information on personal equipment.

See section 13 for disposal information.

7 Handling and storage

7.3 Precautions for safe handling: *Keep receptacles tightly sealed.*

– Information about fire – and explosion protection: *Not applicable.*

7.4 Conditions for safe storage, including any incompatibilities

– Requirements to be met by storerooms and receptacles: *Keep receptacles tightly sealed.*

– Information about storage in one common storage facility: *Not required.*

– Further information about storage conditions: *Not applicable.*

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

– Storage class: *10-13*

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

8 Exposure controls/personal protection

8.3 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.*

8.4 Exposure controls

– Personal protective equipment:

- **General protective and hygienic measures:** Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin.
- **Respiratory protection:** Required when dusts are generated. Filter P2.
- **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

9.3 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: *Heating.*

10.3 Possibility of hazardous reaction: *Reacts with strong oxidizing agents.*

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

10.5 Incompatible materials: *Strong acids, strong oxidants.*

10.6 Hazardous decomposition product: *See chapter 5.*

11 Toxicological information

11.3 Information on toxicological effects

– Acute toxicity:

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

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

13.3 Waste treatment methods

- **Recommendation:** *Disposal should be in accordance with applicable regional, national and local laws and regulations.*
- **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: Proteinase K (lyophilized)

– CAS number: 39450-01-6

– EC number: 254-457-8

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

– Application of the substance / the preparation: *biochemistry*

1.3 Details of the supplier of the safety data sheet

– Manufacturer/supplier:

BLIRT S.A.

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80-172, Gdansk

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Tel. +48 58 739 61 50

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



GHS08

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

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

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

- Hazard pictograms



- Signal word: *Danger*

- Hazard-determining components of labeling: *Proteinase, Tritirachium album serine*

- Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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

H335 May cause respiratory irritation.

- Precautionary statement(s):

Prevention:

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

P271 Use only outdoors or in a well-ventilated area.

Response:

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

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

2.3 Other hazards

EUH208: Contains Proteinase. May produce an allergic reaction.

3. Composition/information on ingredients

3.1 Chemical characterization: Substances

- CAS No. Description: *39450-01-6 Proteinase, Tritirachium album serine*
- EC number: *254-457-8*

4. First aid measures

4.1 Description of first aid measures

- After inhalation: *Supply fresh air; call for a doctor.*
- After skin contact: *Immediately wash with plenty of water. Seek medical treatment.*
- After eye contact: *Rinse opened eye for several minutes under running water. Then consult a doctor.*
- After swallowing: *Make victim drink water (maximum of 2 drinking glasses). Do not induce vomiting; call for medical help 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.

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

– **Combustible**

5.3 Advise for firefighters

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

Additional information

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

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: *Avoid formation of dust. Do not inhale dust. Avoid substance 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. Avoid generation of dusts. Ensure adequate ventilation. Dispose contaminated material as waste according to item 13. Clean up affected area.*

6.4 Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal equipment.

See section 13 for disposal information.

7. Handling and storage

7.1 Precautions for safe handling: *Ensure good ventilation/exhaustion at the workplace. Prevent formation of dust. Any unavoidable deposit of dust must be regularly removed.*

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 tightly sealed.*

– **Recommended storage temperature:** **-20°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:** *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. Vacuum clean contaminated clothing. Do not blow or brush off contamination. Avoid contact with the eyes and skin.*
 - **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 P2.*
 - **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: *Powder*

Color: *White*

- **pH-value at 20°C:** *6.2-6.8*

- **Odour:** *Odourless.*

- **Change in condition:**

- **Melting point/ melting range:** *undetermined*
- **Boiling point/ boiling range:** *undetermined*
- **Flash point:** *not applicable*
- **Flammability (solid, gaseous):** *product is not flammable*
- **Danger of explosion:** *Product does not present an explosion hazard.*
- **Density:** *Not determined*
- **Solubility in/ Miscibility with:**
 - **Water:** *Soluble*

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: *Light/strong heating .*

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.*

Additional information: *Dust explosion possible. Sensitive to air, light sensitive.*

11. Toxicological information

11.1 Information on toxicological effects

– **LD/LC50 values relevant for classification:** *not available*

– **Primary irritant effect:**

- **On the skin:** *Irritant to skin and mucous membranes.*
- **On the eye:** *Irritant effect.*

– **Sensitization:** *Sensitization possible through inhalation.*

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: *Generally not hazardous for water.*

13. Disposal considerations

13.1 Waste treatment methods

- **Recommendation:** *Must not be disposed together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packaging (Recommendation):** *Disposal must be made according to official regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.*

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 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: SSB Buffer
- Hazardous components: Guanidine hydrochloride, Triton X-100
- CAS number: 50-01-1 (Guanidine hydrochloride), 9002-93-1 (Triton X-100)
- EC number: 200-002-3 (Guanidine hydrochloride)

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

- Application of the substance / the preparation: Laboratory chemicals

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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orders@blirt.eu

Tel. +48 58 739 61 50

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



GHS05

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Acute Tox. 4 H332 Harmful if inhaled

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:** *Danger*

– **Hazard-determining components of labeling:** *Guanidine hydrochloride, Triton X-100*

– Hazard statements:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H412 Harmful to aquatic life with long-lasting effects.

– Precautionary statement(s):

Prevention:

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

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

Response:

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

P304+340 P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P305+P351+P338 P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor

2.3 Other hazards

Not applicable.

3. Composition/information on ingredients

3.2 Chemical characterization: *Mixture*

Dangerous ingredients:		
CAS: 50-01-1 EINECS: 200-002-3	<i>Guanidine hydrochloride</i> Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319;	70-80 %
CAS: 9002-93-1	<i>Triton X-100</i> Eye Dam. 1, H318; Acute Tox. 4, H302; Aquatic Chronic 2, H411	0-10 %

4. First aid measures

4.1 Description of first aid measures

– **After inhalation:** *Supply fresh air, call for a doctor immediately.*

– **After skin contact:** *Immediately rinse with water with soap and remove any clothing soiled by the product. If skin irritation continues, consult a doctor.*

– **After eye contact:** *Rinse opened eye for several minutes under running water. Call a doctor immediately.*

– **After swallowing:** *Make victim drink water (maximum of 2 drinking glasses), do not induce vomiting. Call for 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.

5. Firefighting measures

5.1 Extinguishing media

– **Suitable extinguishing agents:** *water, CO₂, foam, powder.*

5.2 Special hazards arising from the substance or mixture

– **Forms explosive mixtures with air on intense heating. Vapours are heavier than air and may spread along floors. In case of fire, the following can be released:** *nitrogen oxides (NO_x), carbon oxides (CO, CO₂), hydrogen chloride (HCl).*

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. Clean up affected area. Dispose of material collected according to regulations.*

6.4 Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal equipment.

See section 13 for disposal information.

7. Handling and storage

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

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: **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: *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 eyes and skin.*

• **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 P2.*

• **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: *Moisture.*

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

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

10.5 Incompatible materials: *Strong oxidants, strong acids.*

10.6 Hazardous decomposition product: *See chapter 5.*

11. Toxicological information

11.1 Information on toxicological effects

– Acute toxicity:

• Oral/Ingestion: $ATE_{mix}=1144$

• Inhalation/Respiratory: $ATE_{mix}=14,57$

– Primary irritant effect:

• On the skin: *Irritant to skin and mucous membranes.*

• On the eye: *Strong irritant with the danger of severe eye injury; risk of corneal clouding.*

– 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 1: 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: *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. Packagings that may not be cleansed are to be disposed of in the same manner as the product.*

– 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

according to 1907/2006/EC, Article 31

Print date: 12.04.2018

Updated: 12.04.2018

Version 3



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

1.1 Product identifier

- Trade name: **DTT**
- Hazardous components: *DTT*
- CAS number: *3483-12-3 (DTT)*
- EC number: *222-468-7 (DTT)*

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

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

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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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.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

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

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

– Hazard pictograms



– Signal word: *Warning*

– Hazard-determining components of labelling: *Threo-1,4-dimerkapto-2,3-butanediol*

– Hazard statements:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

– Precautionary statement(s):

Prevention:

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

Response:

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

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

2.3 Other hazards

Not applicable.

3. Composition/information on ingredients

3.1 Chemical characterization: *Substance*

– Other information: *Not significant*

4. First aid measures

4.1 Description of first aid measures

– **General information:** *Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Involve doctor immediately.*

– **After inhalation:** *In case of unconsciousness place patient stably in side position for transportation.*

– **After skin contact:** *Call a doctor immediately. 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:** *Make victim drink water (maximum of 2 drinking glasses), seek medical treatment. Call for 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.

5. Firefighting measures

5.1 Extinguishing media

– Suitable extinguishing agents: *water, CO₂, foam, powder.*

5.2 Special hazards arising from the substance or mixture

– Forms explosive mixtures with air on intense heating. Vapours are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. In case of fire, the following can be released: *sulphur dioxide (SO₂), 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: *Avoid formation of dust, do not inhale dust, 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. Avoid generation of dusts. Clean up affected area. Dispose of material collected according to regulations.*

6.4 Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal equipment.

See section 13 for disposal information.

7. Handling and storage

7.1 Precautions for safe handling: *No special requirements. Any unavoidable deposit of dust must be regularly removed.*

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

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**

– 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. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Vacuum clean contaminated clothing; do not blow or brush off contamination. Avoid contact with eyes and skin.*

- **Respiratory protection:** *Required when dusts are generated. Filter P2.*

- **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: *Powder*

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:** *Heating.*

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

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

10.5 Incompatible materials: *Strong oxidants.*

10.6 Hazardous decomposition product: *See chapter 5.*

11. Toxicological information

11.1 Information on toxicological effects

– **Primary irritant effect:**

- **On the skin:** *Irritant to skin and mucous membranes.*
- **On the eye:** *Severe irritations.*

– **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. Packagings that may not be cleansed are to be disposed of in the same manner as the product.*

– **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

according to 1907/2006/EC, Article 31

Print date: 12.04.2018

Updated: 12.04.2018

Version 3



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

1.1 Product identifier

- Trade name: SSW1 Buffer
- Hazardous components: Guanidine hydrochloride, 2-propanol
- CAS number: 50-01-1 (Guanidine hydrochloride), 67-63-0 (2-propanol)
- EC number: 200-002-3 (Guanidine hydrochloride), 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 chemicals

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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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

Skin Irrit. 2 H315 Causes skin irritation.

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-determining components of labeling: *Guanidine hydrochloride, 2-propanol*

– Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H225 Highly flammable liquid and vapour.

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:

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

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

2.3 Other hazards

Not applicable.

3. Composition/information on ingredients

3.2 Chemical characterization: *Mixture*

<i>Dangerous ingredients:</i>		
CAS: 67-63-0 EINECS: 200-661-7	<i>2-propanol</i> <i>Flam. Liq. H225; Eye Irrit. 2 H319, STOT SE 3 H336</i>	<i>30-40%</i>
CAS: 50-01-1 EINECS: 200-002-3	<i>Guanidine hydrochloride</i> <i>Acute Tox. 4, H302, Acute Tox. 4 H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319</i>	<i>10-20 %</i>

4. First aid measures

4.1 Description of first aid measures

– **After inhalation:** *Supply fresh air, consult doctor in case of complains.*

– **After skin contact:** *Immediately rinse with water with soap and remove any clothing soiled by the product. If skin irritation continues, consult a doctor.*

– **After eye contact:** *Rinse opened eye for several minutes under running water. Consult with a doctor immediately.*

– **After swallowing:** *Rinse out mouth. 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, CO₂, foam, powder.*

5.2 Special hazards arising from the substance or mixture

– **Combustible**

– **Forms explosive mixtures with air on intense heating. Vapours are heavier than air and may spread along floors. In case of fire, the following can be released:** *nitrogen oxides (NO_x), carbon oxides (CO, CO₂), hydrogen chloride (HCl).*

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. Wear protective equipment. Keep unprotected persons away. Keep away from ignition sources.*

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 material collected according to regulations. Ensure adequate ventilation.*

6.4 Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal equipment.

See section 13 for disposal information.

7. Handling and storage

7.1 Precautions for safe handling: *Keep receptacles tightly sealed. Keep ignition sources away – do not smoke.*

7.2 Conditions for safe storage, including any incompatibilities

– **Requirements to be met by storerooms and receptacles:** *Store in cool location.*

– **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 eyes and skin.*
- **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 P2.*
- **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:** *Moisture.*

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

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

10.5 Incompatible materials: *Strong oxidants.*

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: $ATE_{mix} > 20$*

– **Primary irritant effect:**

• *On the skin: Irritant to skin and mucous membranes.*

• *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:** *Water hazard class 1: 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:** *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. Packagings that may not be cleansed are to be disposed of in the same manner as the product.*

– **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

according to 1907/2006/EC, Article 31

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Version 3



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

1.1 Product identifier

- Trade name: SSW2 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 chemicals*

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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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:

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

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.

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

2.3 Other hazards

Not applicable.

3. Composition/information on ingredients

3.2 Chemical characterization: *Mixture*

Dangerous ingredients:

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

4. First aid measures

4.1 Description of first aid measures

– **After inhalation:** *Supply fresh air. If symptoms persist, consult a doctor.*

– **After skin contact:** *Wash with plenty of water and soap. 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 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 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 Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal 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.*

– 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 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:** *Light/strong heating.*

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:** *Water hazard class 1: 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.*
 - **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

according to 1907/2006/EC, Article 31

Print date: 12.04.2018

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Version 3



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

1.1 Product identifier

– Trade name: Elution Buffer, Proteinase Buffer

– 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 chemicals*

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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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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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

Not applicable.

3 Composition/information on ingredients

3.2 Chemical characterization: *Mixture*

– **Other information:** *Not significant*

4 First aid measures

4.1 Description of first aid measures

– **General information:** *No special measures required.*

– **After inhalation:** *Supply fresh air. In case of complaints, consult a doctor.*

– **After skin contact:** *Wash with water and soap. 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 on safe handling.

See section 8 for information on personal 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: **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: *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: *See chapter 5*

11 Toxicological information

11.1 Information on toxicological effects

– **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.*

– **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.