

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### HBS-Puffer

Revision date: 04.06.2021

Product code: 15213\_collect

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

### 1.1. Product identifier

HBS-Puffer

#### Further trade names

This MSDS covers the following products:

- REF 15213.xxxxx HBS-Puffer – 2x Konzentrat

UFI: 844C-115H-H00Y-2S9J

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

#### Use of the substance/mixture

Use as laboratory reagent. The product is intended for research, analysis and scientific education.

#### Uses advised against

Any non-intended use.

### 1.3. Details of the supplier of the safety data sheet

#### Manufacturer

Company name:	MORPHISTO GmbH	
Street:	Schumannstr. 142/144	
Place:	D-63069 Offenbach	
Telephone:	+49 (0) 69 / 400 3019-60	Telefax: +49 (0) 69 / 400 3019-64
e-mail:	info@morphisto.de	
Internet:	http://www.morphisto.de	

#### Supplier

Company name:	MORPHISTO GmbH	
Street:	Schumannstr. 142/144	
Place:	D-63069 Offenbach	
Telephone:	+49 (0) 69 / 400 3019-60	Telefax: +49 (0) 69 / 400 3019-64
e-mail:	info@morphisto.de	
Internet:	http://www.morphisto.de	

### 1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No. 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

### 2.2. Label elements

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

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**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7647-14-5	Sodium Chloride			1 - < 5 %
	231-598-3			
7365-45-9	HEPES			1 - < 5 %
	230-907-9			
50-99-7	Glucose			< 1 %
	200-075-1			
7447-40-7	Kaliumchlorid			< 0.1 %
	231-211-8			
10028-24-7	Sodium di-hydrogen Phosphat 2-hydrate			< 0.1 %
	231-448-7		01-2119489797-11	

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
50-99-7	200-075-1	Glucose	< 1 %
		oral: LD50 = 25800 mg/kg	
7447-40-7	231-211-8	Kaliumchlorid	< 0.1 %
		oral: LD50 = 2600 mg/kg	
10028-24-7	231-448-7	Sodium di-hydrogen Phosphat 2-hydrate	< 0.1 %
		oral: LD50 = >2000 mg/kg	

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

Get medical advice/attention if you feel unwell.

**After inhalation**

Provide fresh air. In case of respiratory tract irritation, consult a physician.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin irritation, seek medical treatment.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

**After ingestion**

Let water be drunken in little sips (dilution effect). In all cases of doubt, or when symptoms persist, seek medical advice.

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#### **4.2. Most important symptoms and effects, both acute and delayed**

No information available.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

### SECTION 5: Firefighting measures

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

#### **5.2. Special hazards arising from the substance or mixture**

Non-flammable. Vapours can form explosive mixtures with air.

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Use water spray jet to protect personnel and to cool endangered containers.

### SECTION 6: Accidental release measures

#### **6.1. Personal precautions, protective equipment and emergency procedures**

##### **General measures**

Use personal protection equipment. Ventilate affected area.

##### **For non-emergency personnel**

Clear danger zone. Follow emergency plan. Consult an expert.

##### **For emergency responders**

Move undamaged containers from immediate hazard area if it can be done safely.

#### **6.2. Environmental precautions**

No special environmental measures are necessary.

#### **6.3. Methods and material for containment and cleaning up**

##### **For containment**

No special environmental measures are necessary.

##### **For cleaning up**

Clean contaminated articles and floor according to the environmental legislation. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

#### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Wear suitable protective clothing. Ensure cleanliness and dryness in the workplace.

##### **Advice on protection against fire and explosion**

No special fire protection measures are necessary.

##### **Further information on handling**

When using do not eat, drink, smoke, sniff. Street clothing should be stored separately from work clothing.

Contaminated work clothing should not be allowed out of the workplace. Wash hands and face before breaks and after work and take a shower if necessary. Draw up and observe skin protection programme.

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#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed. Store in a well-ventilated place. Keep cool.

##### Hints on joint storage

Do not store together with: food and feed. pharmaceuticals. Infectious substances. Radioactive substances. Explosive substances. Oxidizing substances. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Pyrophoric solids. Substances which in contact with water form flammable gases. Ammonium nitrate and preparations containing ammonium nitrate.

##### Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 15-22°C.

Protect against: Frost. UV-radiation/sunlight. heat. Humidity.

#### 7.3. Specific end use(s)

Use as laboratory reagent. The product is intended for research, analysis and scientific education.

## SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Additional advice on limit values

To date, no national critical limit values exist.

#### 8.2. Exposure controls

##### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Make available sufficient washing facilities

##### Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

##### Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible).

##### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

In case of prolonged or frequently repeated skin contact:

Breakthrough time 8h.

Suitable material:

FKM (fluororubber). Thickness of glove material: 0,4mm.

Butyl rubber. Thickness of glove material: 0,5mm.

CR (polychloroprene, chloroprene rubber) Thickness of glove material: 0,5mm.

NBR (Nitrile rubber). Thickness of glove material: 0,35mm.

PVC (Polyvinyl chloride). Thickness of glove material: 0,5mm.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Before using check leak tightness / impermeability.

##### Skin protection

Use of protective clothing. Lab apron.

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection. With correct and proper use, and under normal conditions, breathing protection is not required.

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**Environmental exposure controls**

Do not allow uncontrolled discharge of product into the environment.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: Liquid  
Colour:  
pH-Value (at 20 °C): 6,61

**Changes in the physical state**

Melting point: not determined  
Boiling point or initial boiling point and boiling range: 100 °C  
Flash point: not determined  
Sustaining combustion: Not sustaining combustion

**Flammability**

Solid/liquid: not applicable  
Gas: not applicable

**Explosive properties**

The product is not: Explosive.

Lower explosion limits: not determined  
Upper explosion limits: not determined

**Self-ignition temperature**

Solid: not applicable  
Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties**

The product is not: oxidising.

Vapour pressure: 23 hPa  
(at 20 °C)Vapour pressure: 123 hPa  
(at 50 °C)Density: 1,01 g/cm<sup>3</sup>

Water solubility: easily soluble

**Solubility in other solvents**

not determined

Partition coefficient n-octanol/water: not determined

Relative vapour density: not determined

Evaporation rate: not determined

Solvent content: 96,95 %

**9.2. Other information**

Solid content: not determined

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

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The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

Protect against: UV-radiation/sunlight. heat.

**10.5. Incompatible materials**

Oxidizing agents. Reducing agent. Substances which in contact with water, emit flammable gases.

**10.6. Hazardous decomposition products**

Can be released in case of fire: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

**SECTION 11: Toxicological information**
**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**Acute toxicity**

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
50-99-7	Glucose				
	oral	LD50 25800 mg/kg	Rat	GESTIS	
7447-40-7	Kaliumchlorid				
	oral	LD50 2600 mg/kg	Rat	GESTIS	
10028-24-7	Sodium di-hydrogen Phosphat 2-hydrate				
	oral	LD50 >2000 mg/kg	Rat.	SDS external	

**Irritation and corrosivity**

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

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Additional information on tests**

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information**
**12.1. Toxicity**

The product is not: Ecotoxic.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7647-14-5	Sodium Chloride					
	Acute fish toxicity	LC50 mg/l	5840	96 h	Lepomis macrochirus	ECHA Dossier
	Acute crustacea toxicity	EC50	874 mg/l	48 h	Daphnia magna	ECHA Dossier
	Fish toxicity	NOEC	252 mg/l	33 d	Pimephales promelas	ECHA Dossier
	Crustacea toxicity	NOEC	314 mg/l	21 d	Daphnia pulex	ECHA Dossier
7447-40-7	Kaliumchlorid					
	Acute fish toxicity	LC50	880 mg/l	96 h	Fathead Minnows	GESTI, Mount et al., 1997
	Acute crustacea toxicity	EC50	141 mg/l	48 h	Daphnia magna Straus	Khangarot, B.S., P.K. Ray 1989; GESTIS

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
50-99-7	Glucose	-3,24

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The product has not been tested.

#### 12.7. Other adverse effects

No information available.

#### Further information

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Observe in addition any national regulations! The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

##### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

<b>14.1. UN number:</b>	Not restricted
<b>14.2. UN proper shipping name:</b>	Not restricted
<b>14.3. Transport hazard class(es):</b>	Not restricted
<b>14.4. Packing group:</b>	Not restricted

#### Inland waterways transport (ADN)

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<b>14.1. UN number:</b>	Not restricted
<b>14.2. UN proper shipping name:</b>	Not restricted
<b>14.3. Transport hazard class(es):</b>	Not restricted
<b>14.4. Packing group:</b>	Not restricted

**Marine transport (IMDG)**

<b>14.1. UN number:</b>	Not restricted
<b>14.2. UN proper shipping name:</b>	Not restricted
<b>14.3. Transport hazard class(es):</b>	Not restricted
<b>14.4. Packing group:</b>	Not restricted

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number:</b>	Not restricted
<b>14.2. UN proper shipping name:</b>	Not restricted
<b>14.3. Transport hazard class(es):</b>	Not restricted
<b>14.4. Packing group:</b>	Not restricted

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Not restricted

**14.7. Maritime transport in bulk according to IMO instruments**

Not restricted

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): - - non-hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

Rev.1,00, 04.06.2021 Initial release

**Abbreviations and acronyms**

CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
CAS: Chemical Abstracts Service  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration

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ATE: Acute toxicity estimate  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation  
intérieures)  
IMDG: International Maritime Code for Dangerous Goods  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
SVHC: Substance of Very High Concern  
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*