

according to Regulation (EC) No 1907/2006

# Zyto Dot 2C SPEC ERBB2/CEN 17 Probe Kit

Product code: C-3022

# **Overview on Safety Data Sheets included**

The document includes Safety Data Sheets for the following kit components:

Code	Component
PT-0002	Heat Pretreatment Solution EDTA
ES-0001	Pepsin Solution
C-3032	Zyto Dot 2C SPEC ERBB2/CEN 17 Probe
WB-0001	Wash Buffer SSC
WB-0005	20x Wash Buffer TBS
AB-0014	Anti-DIG/DNP-Mix
AB-0013	HRP/AP-Polymer-Mix
SB-0006a	AP-Red Solution A
SB-0006b	AP-Red Solution B
SB-0007a	HRP-Green Solution A
SB-0007b	HRP-Green Solution B
CS-0002	Nuclear Blue Solution
MT-0004	Mounting Solution (alcoholic)

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# **Safety Data Sheet**

according to UK REACH Regulation

#### **Heat Pretreatment Solution EDTA**

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

#### 1.1. Product identifier

Heat Pretreatment Solution EDTA

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

# Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven
Telephone: +49 (0) 471/4832-300

E-mail: info@zytovision.com
Internet: www.zytovision.com

1.4. Emergency telephone +49 (0) 471/4832-300

number: 9am - 5pm (CET)

#### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

#### **GB CLP Regulation**

Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

### **GB CLP Regulation**

#### Hazard components for labelling

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Signal word: Warning

Pictograms:



# **Hazard statements**

H317 May cause an allergic skin reaction.

# **Precautionary statements**

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

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing and eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

### 2.3. Other hazards

No information available.

### **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures



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#### Relevant ingredients

CAS No	Chemical name			Quantity	
	EC No Index No REACH No				
	Classification (GB CLP Regulation)				
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)				
	- 613-167-00-5				
	Acute Tox. 2, Acute Tox. 2, Acute Tox. 3, Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 1; H330 H310 H301 H314 H318 H317 H400 H410 EUH071				

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. L	Limits, M-factors and ATE	
55965-84-9	5-84-9 - reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)		< 0,0025 %
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: LC50 = 0,171 mg/l (dusts or mists); dermal: LD50 = 87,12 mg/kg; oral: LD50 = 66 mg/kg Skin Corr. 1C; H314: >= 0,6 - 100 Skin Irrit. 2; H315: >= 0,06 - < 0,6 Eye Dam. 1; H318: >= 0,6 - 100 Eye Irrit. 2; H319: >= 0,06 - < 0,6 Skin Sens. 1A; H317: >= 0,0015 - 100 Aquatic Acute 1; H400: M=100 Aquatic Chronic 1; H410: M=100		

### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

#### After contact with eyes

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

# After ingestion

Rinse mouth immediately and drink 1 glass of of water.

### 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.

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.



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Do not allow entering drains or surface water.

# **SECTION 6: Accidental release measures**

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

#### General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

# 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

### For cleaning up

Absorb with liquid-binding material (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

No special measures are necessary.

### Advice on protection against fire and explosion

No special fire protection measures are necessary.

### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

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

# Requirements for storage rooms and vessels

Keep container tightly closed.

#### Hints on joint storage

No special measures are necessary.

### Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

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

The product is intended for professional use.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

### 8.2. Exposure controls

#### Individual protection measures, such as personal protective equipment

### Eye/face protection

Wear eye protection/face protection.

### **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



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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.

#### Skin protection

Use of protective clothing.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

#### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: colourless
Odour: odourless

Melting point/freezing point:

Boiling point or initial boiling point and

not determined

not determined

boiling range:

Flammability: not determined Lower explosion limits: not determined Upper explosion limits: not determined Flash point: not determined not determined Auto-ignition temperature: Decomposition temperature: not determined pH-Value: not determined Viscosity / kinematic: not determined Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density:

Relative vapour density:

Particle characteristics:

not determined
not determined
not determined
not determined
not determined
not applicable

# 9.2. Other information

#### Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

# 10.2. Chemical stability

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

none



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#### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

### **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in GB CLP Regulation

#### **Acute toxicity**

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

#### **ATEmix** calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
55965-84-9	9 reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)					
	oral	LD50	66 mg/kg	Rat	ECHA	
	dermal	LD50 mg/kg	87,12	Rat	ECHA	
	inhalation vapour		0,5 mg/l			
	inhalation (4 h) dust/mist	LC50 mg/l	0,171	Rabbit	ECHA	

# Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

#### Sensitising effects

May cause an allergic skin reaction. (reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1))

### Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

# STOT-single exposure

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

#### STOT-repeated exposure

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

#### Aspiration hazard

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

### 11.2. Information on other hazards

#### Other information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

### **SECTION 12: Ecological information**

### 12.1. Toxicity

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

### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential



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The product has not been tested.

### 12.4. Mobility in soil

The product has not been tested.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 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**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

### Contaminated packaging

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

### **SECTION 14: Transport information**

Land	transp	ort (A	DR/RID)
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14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

### Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

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

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.



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### **SECTION 15: Regulatory information**

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

### **EU** regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive

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).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

### 15.2. Chemical safety assessment

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

### **SECTION 16: Other information**

#### Changes

This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.



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#### Abbreviations and acronyms

Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Eye Dam: Eye damage
Skin Sens: Skin sensitisation
Aquatic Acute: Acute aquatic haz

Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard 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** 

EC/EEC: European Community/European Economic Community

EU: European Union

CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration

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

M-factor: Multiplying factor

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 DGR: Dangerous Goods Regulations

ICAO: International Civil Aviation Organization

TI: Technical Instructions

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: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Skin Sens. 1; H317	Calculation method

#### Relevant H and EUH statements (number and full text)

H301 Toxic if swallowed.
H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.



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H317	May cause an allergic skin reaction.			

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H330 Fatal if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

EUH071 Corrosive to the respiratory tract.

#### **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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)



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### **Pepsin Solution**

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

#### 1.1. Product identifier

Pepsin Solution

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

#### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven
Telephone: +49 (0) 471/4832-300

Telephone: +49 (0) 471/4832-300 Telefax: +49 (0) 471/4832-509

e-mail: info@zytovision.com
Internet: www.zytovision.com

1.4. Emergency telephone +49 (0) 471/4832-300

number: 9am - 5pm (CET)

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

#### **GB CLP Regulation**

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

#### 2.2. Label elements

### **GB CLP Regulation**

# Special labelling of certain mixtures

EUH208 Contains pepsin A. May produce an allergic reaction.

EUH210 Safety data sheet available on request.

#### 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

# 3.2. Mixtures

# **Hazardous components**

CAS No	No Chemical name			
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
64-17-5	ethanol; ethyl alcohol			< 20 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H31			
67-56-1	methanol			< 20 %
	200-659-6			
	Flam. Liq. 2, Acute Tox. 3, Acute To H370	25 H331 H311 H301		
9001-75-6	pepsin A		< 20 %	
	232-629-3			
	Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, STOT SE 3; H315 H319 H334 H335			

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



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# Pepsin Solution

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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity		
Specific Conc. Limits, M-factors and ATE					
64-17-5	64-17-5 200-578-6 ethanol; ethyl alcohol				
	inhalation: LC50 = 124,7 mg/l (vapours); oral: LD50 = 10470 mg/kg				
67-56-1	200-659-6	methanol	< 20 %		
	inhalation: LC50 = 128 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: LD50 = 15800 mg/kg; oral: LD50 = 5628 mg/kg STOT SE 1; H370: >= 10 - 100 STOT SE 2; H371: >= 3 - < 10				

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

#### After ingestion

Rinse mouth immediately and drink 1 glass of of water.

# 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.

### 5.3. Advice for firefighters

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

### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### **SECTION 6: Accidental release measures**

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

### General advice

Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

#### For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.



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### 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

No special measures are necessary.

#### Advice on protection against fire and explosion

No special fire protection measures are necessary.

#### Advice on general occupational hygiene

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

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

#### Requirements for storage rooms and vessels

Keep container tightly closed.

#### Hints on joint storage

No special measures are necessary.

### Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

### 7.3. Specific end use(s)

The product is intended for professional use.

# **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL

Print date: 07.02.2024



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# **Pepsin Solution**

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#### **DNEL/DMEL values**

CAS No	Substance						
DNEL type		Exposure route	Effect	Value			
64-17-5	ethanol; ethyl alcohol						
Worker DNEL,	acute	inhalation	systemic	1900 mg/m³			
Worker DNEL,	long-term	dermal	systemic	343 mg/kg bw/day			
Worker DNEL,	long-term	inhalation	systemic	950 mg/m³			
67-56-1	methanol						
Worker DNEL,	acute	inhalation	local	260 mg/m³			
Worker DNEL,	acute	dermal	systemic	40 mg/kg bw/day			
Worker DNEL,	acute	inhalation	systemic	260 mg/m³			
Worker DNEL, long-term		inhalation	local	260 mg/m³			
Worker DNEL, long-term		dermal	systemic	40 mg/kg bw/day			
Worker DNEL,	long-term	inhalation	systemic	260 mg/m³			

#### **PNEC** values

CAS No	Substance				
Environmental	compartment	Value			
64-17-5	ethanol; ethyl alcohol				
Freshwater	Freshwater				
Marine water		0,79 mg/l			
Freshwater se	diment	3,6 mg/kg			
Marine sedime	nt	2,9 mg/kg			
Secondary poisoning		380 mg/kg			
Micro-organisms in sewage treatment plants (STP)		580 mg/l			
Soil		0,63 mg/kg			
67-56-1	methanol				
Freshwater		20,8 mg/l			
Marine water		2,08 mg/l			
Freshwater sediment		77 mg/kg			
Marine sediment		7,7 mg/kg			
Micro-organism	100 mg/l				
Soil		100 mg/kg			

### 8.2. Exposure controls

### Individual protection measures, such as personal protective equipment

### Eye/face protection

Wear eye/face protection.

### **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.

### Skin protection

Use of protective clothing.



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# **Pepsin Solution**

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#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless
Odour: odourless

Test method

Melting point/freezing point:

Boiling point or initial boiling point and

not determined
not determined

boiling range:

Flammability: not determined ISO 10156

Lower explosion limits:

Upper explosion limits:

not determined

Flash point:

not determined

Auto-ignition temperature:

not determined

Decomposition temperature:

not determined

pH-Value:

not determined

water solubility:

easily soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density:

Relative vapour density:

not determined
not determined
not determined
not determined

### 9.2. Other information

#### Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Evaporation rate: not determined 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

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

none

# 10.5. Incompatible materials

No information available.



according to UK REACH Regulation

# **Pepsin Solution**

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### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

### **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in GB CLP Regulation

#### **Acute toxicity**

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

#### **ATEmix calculated**

ATE (oral) 3623,2 mg/kg; ATE (dermal) 10869,6 mg/kg; ATE (inhalation vapour) 108,70 mg/l; ATE (inhalation dust/mist) 18,116 mg/l

CAS No	Chemical name	Chemical name					
	Exposure route	Dose		Species	Source	Method	
64-17-5	ethanol; ethyl alcohol						
	oral	LD50 mg/kg	10470	Rat	ECHA		
	inhalation (4 h) vapour	LC50 mg/l	124,7	Rat	ECHA		
67-56-1	methanol						
	oral	LD50 mg/kg	5628	Rat			
	dermal	LD50 mg/kg	15800	Rabbit			
	inhalation (4 h) vapour	LC50	128 mg/l	Rat			
	inhalation dust/mist	ATE	0,5 mg/l				

# Irritation and corrosivity

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

#### Sensitising effects

Contains pepsin A. May produce an allergic reaction.

# 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.

#### 11.2. Information on other hazards

### **Further information**

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

# **SECTION 12: Ecological information**

### 12.1. Toxicity

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

Print date: 07.02.2024



Revision date: 07.02.2024

# **Safety Data Sheet**

according to UK REACH Regulation

# Pepsin Solution Product code: ES-0001

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CAS No	Chemical name						
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
64-17-5	ethanol; ethyl alcohol	ethanol; ethyl alcohol					
	Acute fish toxicity	LC50 8 mg/l	3140		Leuciscus idus (golden orfe)	IUCLID	
	Acute crustacea toxicity	EC50 9 14000 mg/l	9000-	48 h	Daphnia magna	IUCLID	
67-56-1	methanol						
	Acute fish toxicity	LC50 1 mg/l	15400	96 h	fish		
	Fish toxicity	NOEC 2 mg/l	23,75	90 d	fish		

#### 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
64-17-5	ethanol; ethyl alcohol	-0,31

#### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 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**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

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

### **SECTION 14: Transport information**

### Land transport (ADR/RID)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

### Inland waterways transport (ADN)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.

Print date: 07.02.2024



# **Safety Data Sheet**

according to UK REACH Regulation

**Pepsin Solution** 

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14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Segregation group: 1 - acids

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

### **SECTION 15: Regulatory information**

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

### **EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 40, Entry 69, Entry 75

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

(SEVESO III):

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

### 15.2. Chemical safety assessment

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

### **SECTION 16: Other information**

# Changes

This data sheet contains changes from the previous version in section(s):

1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.

#### 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

ATE: Acute toxicity estimate LC50: Lethal concentration, 50%



#### according to UK REACH Regulation

### **Pepsin Solution**

Revision date: 07.02.2024 Product code: ES-0001 Page 9 of 9

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: ECHA Guidance on information requirements and chemical safety

assessment, chapter R.20 (Table of terms and abbreviations).

#### Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H370	Causes damage to organs.
EUH208	Contains pepsin A. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

#### **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.)

Telefax: +49 (0) 471/4832-509



### **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

### **ZytoDot CISH DNA Probe**

Revision date: 13.01.2022 Product code: C-3xxx Page 1 of 9

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

#### 1.1. Product identifier

ZytoDot CISH DNA Probe

#### Further trade names

C-3001, C-3002, C-3006, C-3007, C-3008, C-3012, C-3013, C-3014, C-3016, C-3020, C-3021, C-3023, C-3024, C-3025, C-3026, C-3029, C-3032, C-3033, C-3034, C-3035, C-3036, C-3037, C-3040, C-3043, C-3045, C-3046, C-3047, C-3048, C-3049, C-3050, C-3051, C-3052, C-3053, C-3054, C-3055, C-3056, C-3057, C-3058, C-3059, C-3062, C-3063, C-3064, C-3065, C-3066, C-3067, C-3068, C-3069, C-3070, C-3071, C-3072, C-3073, C-3074, C-3075, C-3077, C-3078, C-3079

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

#### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven
Telephone: +49 (0) 471/4832-300

e-mail: info@zytovision.com
Internet: www.zytovision.com

1.4. Emergency telephone +49 (0) 471/4832-300
number: 9am - 5pm (CET)

#### **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

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

Hazard categories: Carcinogenicity: Carc. 2 Reproductive toxicity: Repr. 1B

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Suspected of causing cancer.

May damage fertility. May damage the unborn child.

May cause damage to organs through prolonged or repeated exposure.

### 2.2. Label elements

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

### Hazard components for labelling

Formamide

Signal word: Danger

Pictograms:



#### **Hazard statements**

H351 Suspected of causing cancer.

H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.



### **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

### **ZytoDot CISH DNA Probe**

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### **Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

#### Special labelling of certain mixtures

Restricted to professional users.

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



#### **Hazard statements**

H351-H360FD

#### **Precautionary statements**

P201-P202-P280-P308+P313-P405

#### 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

### **Hazardous components**

CAS No	Chemical name	Chemical name				
	EC No	Index No	REACH No			
	GHS Classification					
75-12-7	Formamide					
	200-842-0	616-052-00-8				
	Carc. 2, Repr. 1B, STOT RE 2; H351 H360FD H373					

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. L	Specific Conc. Limits, M-factors and ATE			
75-12-7	200-842-0	Formamide	40 - < 60 %		
	inhalation: LC50 = >21 mg/l (vapours); dermal: LD50 = >3000 mg/kg; oral: LD50 = 5325 mg/kg				

### **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. Medical treatment necessary.

#### After contact with skin

Wash with plenty of water. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary.



### **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

### **ZytoDot CISH DNA Probe**

Revision date: 13.01.2022 Product code: C-3xxx Page 3 of 9

#### After contact with eyes

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

#### After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

# 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.

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

#### **SECTION 6: Accidental release measures**

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

#### **General measures**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

#### Other information

Absorb with liquid-binding material (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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

### Advice on protection against fire and explosion

No special fire protection measures are necessary.

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



### **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

### **ZytoDot CISH DNA Probe**

Revision date: 13.01.2022 Product code: C-3xxx Page 4 of 9

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only.

Provide adequate ventilation as well as local exhaustion at critical locations.

### Hints on joint storage

No special measures are necessary.

#### Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

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

The product is intended for professional use.

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
75-12-7	Formamide	20	37		TWA (8 h)	WEL
		30	56		STEL (15 min)	WEL

#### **DNEL/DMEL values**

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
75-12-7	Formamide			
Worker DNEL	_, acute	inhalation	local	6,66 mg/m³
Worker DNEL	_, long-term	dermal	systemic	0,952 mg/kg bw/day
Worker DNEL	 L, long-term	inhalation	systemic	0,66 mg/m³

### 8.2. Exposure controls

### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

### Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

#### Eye/face protection

Wear eye/face protection.

#### 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.

#### Skin protection

Use of protective clothing.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.



### **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

### **ZytoDot CISH DNA Probe**

Revision date: 13.01.2022 Product code: C-3xxx Page 5 of 9

### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless
Odour: odourless

pH-Value: not determined

Changes in the physical state

Melting point:

Boiling point or initial boiling point and

not determined
not determined

boiling range:

Flash point: not determined

**Flammability** 

Solid/liquid: not applicable
Gas: not applicable

**Explosive properties** 

The product is not: Explosive.

Lower explosion limits:

Upper explosion limits:

not determined

not determined

Auto-ignition temperature:

not determined

Self-ignition temperature

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

The product is not: oxidising.

Vapour pressure: not determined

Density: not determined

Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Relative vapour density:

Evaporation rate:

not determined
not determined

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

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

No known hazardous reactions.



### **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

# **ZytoDot CISH DNA Probe**

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### 10.4. Conditions to avoid

none

#### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

### **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	Chemical name				
	Exposure route	Dose		Species	Source	Method
75-12-7	Formamide					
	oral	LD50 mg/kg	5325	Rat	ECHA	
	dermal	LD50 mg/kg	>3000	Rat	ECHA	
	inhalation (4 h) vapour	LC50	>21 mg/l	Rat		

#### 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

Suspected of causing cancer. (Formamide)

May damage fertility. May damage the unborn child. (Formamide)

Germ cell mutagenicity: 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

May cause damage to organs through prolonged or repeated exposure. (Formamide)

# **Aspiration hazard**

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

#### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

# **SECTION 12: Ecological information**

### 12.1. Toxicity

The product is not: Ecotoxic.



### **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

# **ZytoDot CISH DNA Probe**

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CAS No	No Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
75-12-7	-7 Formamide					
	Acute fish toxicity	LC50 6569 mg/l	96 h	fish	ECHA	
	Acute crustacea toxicity	EC50 >500 mg/l	48 h	aquatic invertebrates	ECHA	
	Acute bacteria toxicity	(>1000 mg/l)	0,5 h	microorganisms	ECHA	

# 12.2. Persistence and degradability

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

### 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**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

### Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

# **SECTION 14: Transport information**

### Land transport (ADR/RID)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

### Marine transport (IMDG)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.



# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

### **ZytoDot CISH DNA Probe**

Revision date: 13.01.2022 Product code: C-3xxx Page 8 of 9

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

# **SECTION 15: Regulatory information**

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

#### **EU** regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):

Formamide

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30

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

(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.

1 - slightly hazardous to water

Water hazard class (D):

15.2. Chemical safety assessment

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

**SECTION 16: Other information** 

# Changes

This data sheet contains changes from the previous version in section(s): 1,4,5,6,7,8,9,10,11,12,13,16.

#### 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

ATE: Acute toxicity estimate LC50: Lethal concentration, 50%

LD50: Lethal dose, 50% LL50: Lethal loading, 50% EL50: Effect loading, 50%



### **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

### **ZytoDot CISH DNA Probe**

Revision date: 13.01.2022 Product code: C-3xxx Page 9 of 9

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

#### Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure			
Carc. 2; H351	Calculation method			
Repr. 1B; H360FD	Calculation method			
STOT RE 2; H373	Calculation method			

### Relevant H and EUH statements (number and full text)

H351 Suspected of causing cancer.

H360FD May damage fertility. May damage the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

#### **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.)



according to Regulation (EC) No 1907/2006

### Wash Buffer SSC

Revision date: 22.10.2019 Product code: WB-0001 Page 1 of 8

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

#### 1.1. Product identifier

Wash Buffer SSC

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

#### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven

Telephone: +49 (0) 471/4832-300 Telefax: +49 (0) 471/4832-509

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

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

Hazard categories:

Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:

May cause an allergic skin reaction.

### 2.2. Label elements

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

#### Hazard components for labelling

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)

Signal word: Warning

Pictograms:



#### **Hazard statements**

H317 May cause an allergic skin reaction.

# **Precautionary statements**

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

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

### Labelling of packages where the contents do not exceed 125 ml

Signal word: Warning



according to Regulation (EC) No 1907/2006

#### Wash Buffer SSC

Revision date: 22.10.2019 Product code: WB-0001 Page 2 of 8

#### Pictograms:



#### **Hazard statements**

H317

### **Precautionary statements**

P261-P272-P280-P302+P352-P321-P333+P313-P362+P364-P501

#### 2.3. Other hazards

No information available.

### **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

#### **Hazardous components**

CAS No	Chemical name					
	EC No	REACH No				
	GHS Classification					
55965-84-9	reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)			< 20 %		
	-	613-167-00-5				
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H331 H311 H301 H314 H317 H400 H410					

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

### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

#### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

#### After contact with eyes

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

### After ingestion

Rinse mouth immediately and drink plenty of water.

### 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

Print date: 22 10 2019



# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

#### Wash Buffer SSC

Revision date: 22.10.2019 Product code: WB-0001 Page 3 of 8

# Suitable extinguishing media

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

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

Non-flammable.

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

Suppress gases/vapours/mists with water spray jet.

#### **SECTION 6: Accidental release measures**

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

No special environmental measures are necessary. Clean contaminated articles and floor according to the environmental legislation.

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

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 protection against fire and explosion

No special fire protection measures are necessary.

# 7.2. Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Keep container tightly closed.

### Hints on joint storage

No special measures are necessary.

### Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

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

The product is intended for professional use.

#### **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

#### 8.2. Exposure controls

#### Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

#### Eye/face protection

Wear eye protection/face protection.



according to Regulation (EC) No 1907/2006

### Wash Buffer SSC

Revision date: 22.10.2019 Product code: WB-0001 Page 4 of 8

#### 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.

#### Skin protection

Wear suitable protective clothing.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: colourless
Odour: odourless

pH-Value: not determined

Changes in the physical state

Melting point:

Initial boiling point and boiling range:

Flash point:

not determined

not determined

not determined

**Flammability** 

Solid: not applicable
Gas: not applicable

**Explosive properties** 

No data available.

Lower explosion limits:

Upper explosion limits:

not determined

not determined

**Auto-ignition temperature** 

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties** 

Not oxidising.

Vapour pressure: not determined
Density: not determined
Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient: not determined
Vapour density: not determined
Evaporation rate: not determined

9.2. Other information

Solid content: not determined

Print date: 22.10.2019



# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

### Wash Buffer SSC

Revision date: 22.10.2019 Product code: WB-0001 Page 5 of 8

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

#### 10.2. Chemical stability

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

none

#### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

#### **Acute toxicity**

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

CAS No	Chemical name						
	Exposure route	Dose		Species	Source	Method	
55965-84-9	reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)						
	oral	ATE mg/kg	100				
	dermal	ATE mg/kg	300				
	inhalation vapour	ATE	3 mg/l				
	inhalation aerosol	ATE	0.5 ma/l				

#### Irritation and corrosivity

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

### Sensitising effects

May cause an allergic skin reaction. (reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.

247-500-7]and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1); reaction mass of:

5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1))

### 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.



according to Regulation (EC) No 1907/2006

### Wash Buffer SSC

Revision date: 22.10.2019 Product code: WB-0001 Page 6 of 8

#### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

# **SECTION 12: Ecological information**

# 12.1. Toxicity

The product is not: Ecotoxic.

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### 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.

#### 12.6. Other adverse effects

No information available.

### **Further information**

Avoid release to the environment.

# **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

#### Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

### Contaminated packaging

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

# **SECTION 14: Transport information**

# Land transport (ADR/RID)

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

#### Other applicable information (land transport)

not applicable

### Inland waterways transport (ADN)

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

### Marine transport (IMDG)

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

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



according to Regulation (EC) No 1907/2006

Wash Buffer SSC

Revision date: 22.10.2019 Product code: WB-0001 Page 7 of 8

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

### **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

Not subject to 2012/18/EU (SEVESO III)

(SEVESO III):

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile

work protection guideline' (94/33/EC).

Water contaminating class (D): -- not water contaminating

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

### 15.2. Chemical safety assessment

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

### **SECTION 16: Other information**

### Changes

This data sheet contains changes from the previous version in section(s): 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

 $\hbox{GHS: Globally Harmonized System of Classification and Labelling of Chemicals}$ 

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

# Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Sens. 1; H317	Calculation method

#### Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H311	Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

Print date: 22.10.2019



# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Wash Buffer SSC

Revision date: 22.10.2019 Product code: WB-0001 Page 8 of 8

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

#### **Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary 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.)



# **Safety Data Sheet**

according to UK REACH Regulation

### 20x Wash Buffer TBS

Revision date: 30.05.2024 Product code: WB-0005 Page 1 of 9

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

#### 1.1. Product identifier

20x Wash Buffer TBS

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

# Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven

Telephone: +49 (0) 471/4832-300 Telefax: +49 (0) 471/4832-509

E-mail: info@zytovision.com
Internet: www.zytovision.com

1.4. Emergency telephone +49 (0) 471/4832-300

number: 9am - 5pm (CET)

### **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

### **GB CLP Regulation**

Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

# **GB CLP Regulation**

### Hazard components for labelling

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Signal word: Warning

Pictograms:



# **Hazard statements**

H317 May cause an allergic skin reaction.

# **Precautionary statements**

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

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing and eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

### 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

# 3.2. Mixtures



according to UK REACH Regulation

### 20x Wash Buffer TBS

Revision date: 30.05.2024 Product code: WB-0005 Page 2 of 9

#### Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)			< 0,0025 %
	- 613-167-00-5			
	Acute Tox. 2, Acute Tox. 2, Acute Tox. 3, Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 1; H330 H310 H301 H314 H318 H317 H400 H410 EUH071			

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. I	Limits, M-factors and ATE	
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)		< 0,0025 %
	LD50 = 87,12 m H315: >= 0,06 - Skin Sens. 1A; Aquatic Acute 1	E = 0,5 mg/l (vapours); inhalation: LC50 = 0,171 mg/l (dusts or mists); dermal: ng/kg; oral: LD50 = 66 mg/kg	

### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

### After contact with eyes

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

# After ingestion

Rinse mouth immediately and drink 1 glass of of water.

# 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.

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.



according to UK REACH Regulation

### 20x Wash Buffer TBS

Revision date: 30.05.2024 Product code: WB-0005 Page 3 of 9

Do not allow entering drains or surface water.

# **SECTION 6: Accidental release measures**

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

#### General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

# For cleaning up

Absorb with liquid-binding material (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

No special measures are necessary.

# Advice on protection against fire and explosion

No special fire protection measures are necessary.

# Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

# 7.2. Conditions for safe storage, including any incompatibilities

# Requirements for storage rooms and vessels

Keep container tightly closed.

### Hints on joint storage

No special measures are necessary.

### Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

### 7.3. Specific end use(s)

The product is intended for professional use.

# **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

# 8.2. Exposure controls

### Individual protection measures, such as personal protective equipment

# Eye/face protection

Wear eye protection/face protection.

# **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



according to UK REACH Regulation

# 20x Wash Buffer TBS

Revision date: 30.05.2024 Product code: WB-0005 Page 4 of 9

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.

#### Skin protection

Use of protective clothing.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless
Odour: odourless

Melting point/freezing point:

Boiling point or initial boiling point and

not determined

not determined

boiling range:

Flammability: not determined Lower explosion limits: not determined Upper explosion limits: not determined Flash point: not determined not determined Auto-ignition temperature: Decomposition temperature: not determined pH-Value: not determined Viscosity / kinematic: not determined Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density:

Relative vapour density:

Particle characteristics:

not determined
not determined
not determined
not determined
not determined
not applicable

# 9.2. Other information

### Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

# **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

# 10.2. Chemical stability

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

none



# **Safety Data Sheet**

according to UK REACH Regulation

### 20x Wash Buffer TBS

Revision date: 30.05.2024 Product code: WB-0005 Page 5 of 9

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in GB CLP Regulation

### **Acute toxicity**

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

#### **ATEmix** calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
55965-84-9	reaction mass of 5-chloro-	-2-methyl-2H	l-isothiazol-3	3-one and 2-methyl-2H-iso	thiazol-3-one (3:1)	
	oral	LD50	66 mg/kg	Rat	ECHA	
	dermal	LD50 mg/kg	87,12	Rat	ECHA	
	inhalation vapour	ATE	0,5 mg/l			
	inhalation (4 h) dust/mist	LC50 mg/l	0,171	Rabbit	ECHA	

# Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

#### Sensitising effects

May cause an allergic skin reaction. (reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1))

# Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

# STOT-single exposure

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

### STOT-repeated exposure

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

#### Aspiration hazard

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

# 11.2. Information on other hazards

### Other information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

### **SECTION 12: Ecological information**

# 12.1. Toxicity

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

### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential



# **Safety Data Sheet**

according to UK REACH Regulation

### 20x Wash Buffer TBS

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The product has not been tested.

# 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 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**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

### Contaminated packaging

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

### **SECTION 14: Transport information**

Land	transp	ort (A	DR/RID)
------	--------	--------	---------

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

### Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

### Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

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

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

# 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.



# **Safety Data Sheet**

according to UK REACH Regulation

### 20x Wash Buffer TBS

Revision date: 30.05.2024 Product code: WB-0005 Page 7 of 9

# **SECTION 15: Regulatory information**

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

# **EU** regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive

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).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

# 15.2. Chemical safety assessment

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

# **SECTION 16: Other information**

### Changes

This data sheet contains changes from the previous version in section(s): 2,4,5,6,7,8,9,10,11,12,13,14,16.



### according to UK REACH Regulation

### 20x Wash Buffer TBS

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### Abbreviations and acronyms

Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Eye Dam: Eye damage
Skin Sens: Skin sensitisation
Aduatic Acute: Acute aquatic

Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard
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** 

EC/EEC: European Community/European Economic Community

EU: European Union

CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration

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

M-factor: Multiplying factor

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 DGR: Dangerous Goods Regulations

ICAO: International Civil Aviation Organization

TI: Technical Instructions

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: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Skin Sens. 1; H317	Calculation method

### Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H310	Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.



# **Safety Data Sheet**

according to UK REACH Regulation

	20x Wash Buffer TBS	
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H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

H330 Fatal if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

EUH071 Corrosive to the respiratory tract.

#### **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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)



according to Regulation (EC) No 1907/2006

### Anti-DIG/DNP-Mix

Revision date: 09.02.2018 Product code: AB-0014 Page 1 of 7

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

#### 1.1. Product identifier

Anti-DIG/DNP-Mix

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

#### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven

Telephone: +49 (0) 471/4832-300 Telefax: +49 (0) 471/4832-509

e-mail: info@zytovision.com Internet: www.zytovision.com 1.4. Emergency telephone +49 (0) 471/4832-300 number: 9am - 5pm (CET)

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

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

Hazard categories:

Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:

May cause an allergic skin reaction.

# 2.2. Label elements

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

# Hazard components for labelling

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no.

220-239-6] (3:1)

Signal word: Warning

Pictograms:



# **Hazard statements**

H317 May cause an allergic skin reaction.

### **Precautionary statements**

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

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

# 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

# 3.2. Mixtures



according to Regulation (EC) No 1907/2006

# Anti-DIG/DNP-Mix

Revision date: 09.02.2018 Product code: AB-0014 Page 2 of 7

### **Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
55965-84-9	Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)			< 20 %
	- 613-167-00-5			
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H331 H311 H301 H314 H317 H400 H410			

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

#### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

#### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

### After contact with eyes

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

### After ingestion

Rinse mouth immediately and drink plenty of water.

# 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.

# 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

# **Additional information**

Suppress gases/vapours/mists with water spray jet.

# **SECTION 6: Accidental release measures**

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

# 6.2. Environmental precautions

No special environmental measures are necessary. Clean contaminated articles and floor according to the environmental legislation.



according to Regulation (EC) No 1907/2006

### Anti-DIG/DNP-Mix

Revision date: 09.02.2018 Product code: AB-0014 Page 3 of 7

# 6.3. Methods and material for containment and cleaning up

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

No special measures are necessary.

# Advice on protection against fire and explosion

No special fire protection measures are necessary.

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

### Requirements for storage rooms and vessels

Keep container tightly closed.

#### Advice on storage compatibility

No special measures are necessary.

### Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

### 7.3. Specific end use(s)

The product is intended for professional use.

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# 8.2. Exposure controls

### Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

### Eye/face protection

Wear eye/face protection.

### 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.

### Skin protection

Wear suitable protective clothing.

# Respiratory protection

In case of inadequate ventilation wear respiratory protection.



according to Regulation (EC) No 1907/2006

### Anti-DIG/DNP-Mix

Revision date: 09.02.2018 Product code: AB-0014 Page 4 of 7

# **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless
Odour: odourless

Test method

pH-Value: not determined

Changes in the physical state

Melting point:

Initial boiling point and boiling range:

Flash point:

not determined

not determined

not determined

**Flammability** 

Solid: not applicable
Gas: not applicable

**Explosive properties** 

not determined

Lower explosion limits:

Upper explosion limits:

not determined

not determined

**Auto-ignition temperature** 

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties** 

Not oxidizing.

Vapour pressure: not determined

Density: not determined

Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

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

The product is stable under storage at normal ambient temperatures.

# 10.3. Possibility of hazardous reactions

No known hazardous reactions.



according to Regulation (EC) No 1907/2006

### Anti-DIG/DNP-Mix

Revision date: 09.02.2018 Product code: AB-0014 Page 5 of 7

### 10.4. Conditions to avoid

none

### 10.5. Incompatible materials

No information available.

# 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

# 11.1. Information on toxicological effects

### **Acute toxicity**

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

CAS No	Chemical name						
	Exposure route	Dose	Species	Source	Method		
55965-84-9	Mixture of: 5-chloro-2-met 220-239-6] (3:1)	thyl-4-isothiazolin-3-one	[EC no. 247-500-7] and 2-	methyl-2H-isothiazol-3-on	e [EC no.		
		ATE 100 mg/kg					
		ATE 300 mg/kg					
	inhalative vapour	ATE 3 mg/l					
	inhalative aerosol	ATE 0,5 mg/l					

### Irritation and corrosivity

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

### Sensitising effects

May cause an allergic skin reaction.

# 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 hazardous according to regulation (EC) No 1272/2008 [CLP].

# **SECTION 12: Ecological information**

# 12.1. Toxicity

The product is not: Ecotoxic.

### 12.2. Persistence and degradability

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

### 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.



according to Regulation (EC) No 1907/2006

### Anti-DIG/DNP-Mix

Revision date: 09.02.2018 Product code: AB-0014 Page 6 of 7

### 12.6. Other adverse effects

No information available.

#### **Further information**

Avoid release to the environment.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

#### Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

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

### **SECTION 14: Transport information**

### Land transport (ADR/RID)

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

# 14.4. Packing group: Other applicable information (land transport)

No dangerous good in sense of these transport regulations.

# Inland waterways transport (ADN)

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

### Other applicable information (inland waterways transport)

No dangerous good in sense of these transport regulations.

### Marine transport (IMDG)

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

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

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

# 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

### 14.6. Special precautions for user

No information available.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

### **SECTION 15: Regulatory information**



according to Regulation (EC) No 1907/2006

# Anti-DIG/DNP-Mix

Revision date: 09.02.2018 Product code: AB-0014 Page 7 of 7

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

### **National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile

work protection guideline' (94/33/EC).

Water contaminating class (D): - - not water contaminating

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

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

### **SECTION 16: Other information**

### Changes

This data sheet contains changes from the previous version in section(s): 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

### Relevant H and EUH statements (number and full text)

H301 Toxic if swallowed.
H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

### **Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary 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.)



according to Regulation (EC) No 1907/2006

# HRP/AP-Polymer-Mix

Revision date: 09.02.2018 Product code: AB-0013 Page 1 of 7

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

### 1.1. Product identifier

HRP/AP-Polymer-Mix

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

#### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven

Telephone: +49 (0) 471/4832-300 Telefax: +49 (0) 471/4832-509

e-mail: info@zytovision.com Internet: www.zytovision.com 1.4. Emergency telephone +49 (0) 471/4832-300 number: 9am - 5pm (CET)

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

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

Hazard categories:

Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:

May cause an allergic skin reaction.

# 2.2. Label elements

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

# Hazard components for labelling

Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no.

220-239-6] (3:1)

Signal word: Warning

Pictograms:



# **Hazard statements**

H317 May cause an allergic skin reaction.

### **Precautionary statements**

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

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

# 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

# 3.2. Mixtures



according to Regulation (EC) No 1907/2006

# HRP/AP-Polymer-Mix

Revision date: 09.02.2018 Product code: AB-0013 Page 2 of 7

#### **Hazardous components**

CAS No	Chemical name					
	EC No Index No REACH No					
	Classification according to Regulation (EC) No. 1272/2008 [CLP]					
55965-84-9	Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)					
	-	613-167-00-5				
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H331 H311 H301 H314 H317 H400 H410					

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

#### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

#### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

### After contact with eyes

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

### After ingestion

Rinse mouth immediately and drink plenty of water.

# 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.

# 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

# Additional information

Suppress gases/vapours/mists with water spray jet.

# **SECTION 6: Accidental release measures**

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

# 6.2. Environmental precautions

No special environmental measures are necessary. Clean contaminated articles and floor according to the environmental legislation.



according to Regulation (EC) No 1907/2006

# HRP/AP-Polymer-Mix

Revision date: 09.02.2018 Product code: AB-0013 Page 3 of 7

# 6.3. Methods and material for containment and cleaning up

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

No special measures are necessary.

# Advice on protection against fire and explosion

No special fire protection measures are necessary.

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

### Requirements for storage rooms and vessels

Keep container tightly closed.

#### Advice on storage compatibility

No special measures are necessary.

### Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

### 7.3. Specific end use(s)

The product is intended for professional use.

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# 8.2. Exposure controls

### Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

### Eye/face protection

Wear eye/face protection.

### 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.

### Skin protection

Wear suitable protective clothing.

# Respiratory protection

In case of inadequate ventilation wear respiratory protection.



according to Regulation (EC) No 1907/2006

# HRP/AP-Polymer-Mix

Revision date: 09.02.2018 Product code: AB-0013 Page 4 of 7

# **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: odourless
Odour: colourless

Test method

pH-Value: not determined

Changes in the physical state

Melting point:

Initial boiling point and boiling range:

Flash point:

not determined

not determined

not determined

**Flammability** 

Solid: not applicable
Gas: not applicable

**Explosive properties** 

not applicable

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

**Auto-ignition temperature** 

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties** 

Not oxidizing.

Vapour pressure: not determined

Density: not determined

Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

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

The product is stable under storage at normal ambient temperatures.

# 10.3. Possibility of hazardous reactions

No known hazardous reactions.



according to Regulation (EC) No 1907/2006

# HRP/AP-Polymer-Mix

Revision date: 09.02.2018 Product code: AB-0013 Page 5 of 7

### 10.4. Conditions to avoid

none

### 10.5. Incompatible materials

No information available.

# 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

### **Acute toxicity**

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

CAS No	Chemical name						
	Exposure route	Dose	Species	Source	Method		
55965-84-9	Mixture of: 5-chloro-2-me 220-239-6] (3:1)	thyl-4-isothiazolin-3-one	[EC no. 247-500-7] and 2-	methyl-2H-isothiazol-3-on	e [EC no.		
	oral	ATE 100 mg/kg					
	dermal	ATE 300 mg/kg					
	inhalative vapour	ATE 3 mg/l					
	inhalative aerosol	ATE 0,5 mg/l					

### Irritation and corrosivity

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

### Sensitising effects

May cause an allergic skin reaction.

# 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 hazardous according to regulation (EC) No 1272/2008 [CLP].

# **SECTION 12: Ecological information**

# 12.1. Toxicity

The product is not: Ecotoxic.

### 12.2. Persistence and degradability

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

### 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.



according to Regulation (EC) No 1907/2006

# HRP/AP-Polymer-Mix

Revision date: 09.02.2018 Product code: AB-0013 Page 6 of 7

### 12.6. Other adverse effects

No information available.

#### **Further information**

Avoid release to the environment.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

#### Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

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

### **SECTION 14: Transport information**

### Land transport (ADR/RID)

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

# 14.4. Packing group: Other applicable information (land transport)

No dangerous good in sense of these transport regulations.

### Inland waterways transport (ADN)

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

### Other applicable information (inland waterways transport)

No dangerous good in sense of these transport regulations.

### Marine transport (IMDG)

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

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

14.1. UN number:not applicable14.2. UN proper shipping name:not applicable14.3. Transport hazard class(es):not applicable

14.4. Packing group:

# 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

### 14.6. Special precautions for user

No information available.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

### **SECTION 15: Regulatory information**



according to Regulation (EC) No 1907/2006

# HRP/AP-Polymer-Mix

Revision date: 09.02.2018 Product code: AB-0013 Page 7 of 7

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

### **National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile

work protection guideline' (94/33/EC).

Water contaminating class (D): - - not water contaminating

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

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

### **SECTION 16: Other information**

### Changes

This data sheet contains changes from the previous version in section(s): 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

### Relevant H and EUH statements (number and full text)

H301 Toxic if swallowed.
H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

### **Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary 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.)

Print date: 26.04.2022



# **Safety Data Sheet**

according to UK REACH Regulation

### **AP-Red Solution A**

Revision date: 26.04.2022 Product code: SB-0006a Page 1 of 8

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

### 1.1. Product identifier

AP-Red Solution A

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

### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven

Telephone: +49 (0) 471/4832-300 Telefax: +49 (0) 471/4832-509

e-mail: info@zytovision.com
Internet: www.zytovision.com

1.4. Emergency telephone +49 (0) 471/4832-300

number: 9am - 5pm (CET)

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

### **GB CLP Regulation**

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

# 2.2. Label elements

# **GB CLP Regulation**

# **Hazard statements**

H412 Harmful to aquatic life with long lasting effects.

### **Precautionary statements**

P273 Avoid release to the environment.

Labelling of packages where the contents do not exceed 125 ml

#### **Hazard statements**

H412

# 2.3. Other hazards

No information available.

### **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

Print date: 26.04.2022



# **Safety Data Sheet**

according to UK REACH Regulation

### **AP-Red Solution A**

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#### **Hazardous components**

CAS No	Chemical name	Chemical name			
	EC No	Index No	REACH No		
	Classification (GB CLP Regulation)				
-	hydrochloric acid %			< 20 %	
	231-595-7	017-002-01-X			
	Skin Corr. 1B, STOT SE 3; H314 H335				
3248-91-7	4-[(4-amino-m-tolyl)(4-imino-3-methylcyclohexa-2,5-dien-1-ylidene)methyl]-o-toluidine monohydrochloride				
	221-831-7				
	Carc. 2, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, Aquatic Chronic 1; H351 H315 H319 H335 H410				

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. I	Limits, M-factors and ATE	
-	231-595-7	hydrochloric acid %	< 20 %
	1	1314: >= 25 - 100	

### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

### After inhalation

Provide fresh air.

### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

# After ingestion

Rinse mouth immediately and drink 1 glass of of water.

### 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.

# 5.3. Advice for firefighters

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

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

# **SECTION 6: Accidental release measures**



according to UK REACH Regulation

### **AP-Red Solution A**

Revision date: 26.04.2022 Product code: SB-0006a Page 3 of 8

# 6.1. Personal precautions, protective equipment and emergency procedures

#### General advice

Use personal protection equipment.

# 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

#### For cleaning up

Absorb with liquid-binding material (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

No special measures are necessary.

# Advice on protection against fire and explosion

No special fire protection measures are necessary.

### Advice on general occupational hygiene

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

# 7.2. Conditions for safe storage, including any incompatibilities

# Requirements for storage rooms and vessels

Keep container tightly closed.

### Hints on joint storage

No special measures are necessary.

#### Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

### 7.3. Specific end use(s)

The product is intended for professional use.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

# **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
7647-01-0	Hydrogen chloride (gas and aerosol mists)	1	2		TWA (8 h)	WEL
		5	8		STEL (15 min)	WEL

### 8.2. Exposure controls

# Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear eye/face protection.

#### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four



according to UK REACH Regulation

### **AP-Red Solution A**

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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.

### Skin protection

Use of protective clothing.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: brown
Odour: odourless

#### Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

not determined

boiling range:

Flash point: not determined

**Flammability** 

Solid/liquid: not applicable
Gas: not applicable

### **Explosive properties**

The product is not: Explosive.

Lower explosion limits:

Upper explosion limits:

Auto-ignition temperature:

Decomposition temperature:

pH-Value:

Not determined

not determined

not determined

rot determined

not determined

solubility:

easily soluble

# Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density:

Relative vapour density:

not determined
not determined
not determined
not determined

# 9.2. Other information

### Information with regard to physical hazard classes

Oxidizing properties

The product is not: oxidising.

### Other safety characteristics

Solid content: not determined Evaporation rate: not determined

**Further Information** 

Print date: 26.04.2022



# **Safety Data Sheet**

according to UK REACH Regulation

#### **AP-Red Solution A**

Revision date: 26.04.2022 Product code: SB-0006a Page 5 of 8

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

# 10.2. Chemical stability

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

none

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

# 11.1. Information on hazard classes as defined in GB CLP Regulation

#### **Acute toxicity**

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

#### 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.

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

Harmful to aquatic life with long lasting effects.

	ı	<u> </u>					
CAS No	Chemical name						
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
-	hydrochloric acid %						
	Acute fish toxicity	LC50 86	62 mg/l	96 h	Leuciscus idus		

### 12.2. Persistence and degradability

The product has not been tested.

# 12.3. Bioaccumulative potential

The product has not been tested.

### 12.4. Mobility in soil

The product has not been tested.

# 12.5. Results of PBT and vPvB assessment

Print date: 26.04.2022



# **Safety Data Sheet**

according to UK REACH Regulation

#### **AP-Red Solution A**

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The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

# 12.7. Other adverse effects

No information available.

### **Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

### **Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

### Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

### **SECTION 14: Transport information**

Land transport (A	DR/RID)
-------------------	---------

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

# Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

# Marine transport (IMDG)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

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

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

# 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

# 14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

# **SECTION 15: Regulatory information**



### according to UK REACH Regulation

#### **AP-Red Solution A**

Revision date: 26.04.2022 Product code: SB-0006a Page 7 of 8

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

### **EU** regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to 2012/18/EU

Not subject to 2012/18/EU (SEVESO III)

(SEVESO III):

**National regulatory information** 

Employment restrictions: Observe restrictions to employment for juveniles according to the

'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously 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

This data sheet contains changes from the previous version in section(s): 2,4,5,6,7,8,9,10,12,13,14,15,16.

### 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

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: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).



Revision date: 26.04.2022

# **Safety Data Sheet**

according to UK REACH Regulation

# AP-Red Solution A Product code: SB-0006a Page 8 of 8

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Aquatic Chronic 3; H412	Calculation method

### Relevant H and EUH statements (number and full text)

H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H410	Very toxic to aquatic life with long lasting effect

H412 Harmful to aquatic life with long lasting effects.

#### **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.)



according to UK REACH Regulation

#### **AP-Red Solution B**

Revision date: 26.04.2022 Product code: SB-0006b Page 1 of 7

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

#### 1.1. Product identifier

AP-Red Solution B

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

### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven

Telephone: +49 (0) 471/4832-300 Telefax: +49 (0) 471/4832-509

e-mail: info@zytovision.com
Internet: www.zytovision.com

1.4. Emergency telephone +49 (0) 471/4832-300

number: 9am - 5pm (CET)

### **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

#### **GB CLP Regulation**

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

### 2.2. Label elements

#### 2.3. Other hazards

No information available.

#### **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

# **Hazardous components**

none (according to UK REACH Regulation)

### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air.

#### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

### After ingestion

Rinse mouth immediately and drink 1 glass of of water.

### 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.

Print date: 26.04.2022



# **Safety Data Sheet**

according to UK REACH Regulation

#### **AP-Red Solution B**

Revision date: 26.04.2022 Product code: SB-0006b Page 2 of 7

### **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.

### 5.3. Advice for firefighters

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

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

#### **SECTION 6: Accidental release measures**

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

#### General advice

Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

### For cleaning up

Absorb with liquid-binding material (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

No special measures are necessary.

# Advice on protection against fire and explosion

No special fire protection measures are necessary.

### Advice on general occupational hygiene

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

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

# Requirements for storage rooms and vessels

Keep container tightly closed.

### Hints on joint storage

No special measures are necessary.

### Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

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

The product is intended for professional use.

# **SECTION 8: Exposure controls/personal protection**

Print date: 26.04.2022



# **Safety Data Sheet**

according to UK REACH Regulation

# AP-Red Solution B

Revision date: 26.04.2022 Product code: SB-0006b Page 3 of 7

# 8.1. Control parameters

### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL

### **DNEL/DMEL values**

CAS No	Substance				
DNEL type		Exposure route	Effect	Value	
56-81-5	Glycerol				
Worker DNEL, long-term inhalation local 56			56 mg/m³		

#### **PNEC** values

CAS No	Substance		
Environmental compartment Value			
56-81-5	Glycerol		
Freshwater 0,885 m		0,885 mg/l	
Marine water		0,088 mg/l	
Freshwater sediment		3,3 mg/kg	
Marine sediment		0,33 mg/kg	
Micro-organisms in sewage treatment plants (STP)		1000 mg/l	
Soil		0,141 mg/kg	

# 8.2. Exposure controls

# Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear eye/face protection.

### 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.

### Skin protection

Use of protective clothing.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless
Odour: odourless

### Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

not determined

boiling range:

Flash point: not determined



according to UK REACH Regulation

### **AP-Red Solution B**

Revision date: 26.04.2022 Product code: SB-0006b Page 4 of 7

**Flammability** 

Solid/liquid: not applicable
Gas: not applicable

**Explosive properties** 

The product is not: Explosive.

Lower explosion limits:

Upper explosion limits:

Auto-ignition temperature:

Decomposition temperature:

pH-Value:

not determined

not determined

not determined

easily soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density:

not determined

not determined

not determined

not determined

not determined

not determined

#### 9.2. Other information

# Information with regard to physical hazard classes

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Solid content: not determined Evaporation rate: not determined

**Further Information** 

# **SECTION 10: Stability and reactivity**

# 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2. Chemical stability

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

none

### 10.5. Incompatible materials

No information available.

# 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

# 11.1. Information on hazard classes as defined in GB CLP Regulation

### **Acute toxicity**

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



according to UK REACH Regulation

#### **AP-Red Solution B**

Revision date: 26.04.2022 Product code: SB-0006b Page 5 of 7

### 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.

#### **Further information**

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.

### 12.2. Persistence and degradability

The product has not been tested.

### 12.3. Bioaccumulative potential

The product has not been tested.

### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 12.7. Other adverse effects

No information available.

# Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

# **Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

# Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

# **SECTION 14: Transport information**

### Land transport (ADR/RID)

14.1. UN number or ID number:
 14.2. UN proper shipping name:
 No dangerous good in sense of this transport regulation.
 No dangerous good in sense of this transport regulation.



# **Safety Data Sheet**

according to UK REACH Regulation

	AP-Red Solution B	
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14.3. Transport hazard class(es):
 14.4. Packing group:
 No dangerous good in sense of this transport regulation.
 No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

# **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 Not subject to 2012/18/EU (SEVESO III)

(SEVESO III):

**National regulatory information** 

Water hazard class (D): 2 - obviously 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

This data sheet contains changes from the previous version in section(s): 2,4,5,6,7,8,9,10,11,12,13,14,15,16.

## 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

ATE: Acute toxicity estimate LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%



# **Safety Data Sheet**

## according to UK REACH Regulation

#### **AP-Red Solution B**

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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: ECHA Guidance on information requirements and chemical safety

assessment, chapter R.20 (Table of terms and abbreviations).

#### **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.)

Telefax: +49 (0) 471/4832-509



# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

## **HRP-Green Solution A**

Revision date: 30.04.2020 Product code: SB-0007a Page 1 of 11

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

#### 1.1. Product identifier

HRP-Green Solution A

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

#### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven

Telephone: +49 (0) 471/4832-300 e-mail: info@zytovision.com

 Internet:
 www.zytovision.com

 1.4. Emergency telephone
 +49 (0) 471/4832-300

 number:
 9am - 5pm (CET)

#### **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

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

Hazard categories:

Flammable liquid: Flam. Liq. 2 Acute toxicity: Acute Tox. 3 Acute toxicity: Acute Tox. 3 Acute toxicity: Acute Tox. 3

Specific target organ toxicity - single exposure: STOT SE 1

Hazard Statements:

Highly flammable liquid and vapour.

Toxic if swallowed.

Toxic in contact with skin.

Toxic if inhaled.

Causes damage to organs.

# 2.2. Label elements

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

# Hazard components for labelling

methanol

Hydrogen peroxide solution ... % **Signal word:** Danger

#### Pictograms:







## **Hazard statements**

H225 Highly flammable liquid and vapour.

H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.

H370 Causes damage to organs.

#### **Precautionary statements**

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

smoking.



according to Regulation (EC) No 1907/2006

**HRP-Green Solution A** 

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P233 Keep container tightly closed.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

P403+P235 Store in a well-ventilated place. Keep cool. Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:







#### **Hazard statements**

H301+H311+H331-H370

# **Precautionary statements**

P233-P260-P280-P308+P311

#### 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name					
	EC No	Index No	REACH No			
	GHS Classification	•	•			
67-56-1	methanol					
	200-659-6	603-001-00-X	603-001-00-X			
	Flam. Liq. 2, Acute Tox	a. 3, Acute Tox. 3, Acute Tox. 3, STOT	SE 1; H225 H331 H311 H301 H370			
7722-84-1	Hydrogen peroxide sol	ution %		< 20 %		
	231-765-0	008-003-00-9	01-2119485845-22			
	Ox. Liq. 1, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A, Aquatic Chronic 3; H271 H332 H302 H314 H412					

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

## **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

#### **General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

#### After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

# After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Call a physician immediately.

#### After contact with eves

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.



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according to Regulation (EC) No 1907/2006

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#### After ingestion

Rinse mouth immediately and drink 1 glass of of water. Induce vomiting when the affected person is not unconscious. Call a physician immediately.

## 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

Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.

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

Highly flammable. Vapours can form explosive mixtures with air.

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

# **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

# 6.3. Methods and material for containment and cleaning up

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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

#### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

# 7.2. Conditions for safe storage, including any incompatibilities

# Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.



according to Regulation (EC) No 1907/2006

# **HRP-Green Solution A**

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# Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

# Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

# 7.3. Specific end use(s)

The product is intended for professional use.

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
7722-84-1	Hydrogen peroxide	1	1.4		TWA (8 h)	WEL
		2	2.8		STEL (15 min)	WEL
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL

#### **DNEL/DMEL values**

CAS No	Substance						
DNEL type		Exposure route	Effect	Value			
67-56-1	methanol						
Worker DNEL	, acute	inhalation	local	260 mg/m³			
Worker DNEL	, acute	dermal	systemic	40 mg/kg bw/day			
Worker DNEL	Worker DNEL, acute inhalation systemic 260 mg/m³						
Worker DNEL	, long-term	inhalation	local	260 mg/m³			
Worker DNEL	, long-term	dermal	systemic	40 mg/kg bw/day			
Worker DNEL	, long-term	inhalation	systemic	260 mg/m³			
7722-84-1 Hydrogen peroxide solution %							
Worker DNEL, acute inhalation local 3 mg/m³				3 mg/m³			
Worker DNEL	, long-term	inhalation	systemic	1,4 mg/m³			



# **Safety Data Sheet**

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## **HRP-Green Solution A**

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#### **PNEC values**

CAS No	Substance		
Environment	al compartment	Value	
67-56-1	methanol		
Freshwater		20,8 mg/l	
Marine water	г	2,08 mg/l	
Freshwater s	sediment	77 mg/kg	
Marine sedin	nent	7,7 mg/kg	
Micro-organisms in sewage treatment plants (STP)		100 mg/l	
Soil		100 mg/kg	
7722-84-1	Hydrogen peroxide solution %		
Freshwater		0,013 mg/l	
Freshwater (	intermittent releases)	0,0138 mg/l	
Marine water	г	0,013 mg/l	
Freshwater s	sediment	0,047 mg/kg	
Marine sediment 0,047		0,047 mg/kg	
Micro-organisms in sewage treatment plants (STP) 4,66 mg/l		4,66 mg/l	
Soil		0,002 mg/kg	

#### 8.2. Exposure controls

## Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

#### Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

# Eye/face protection

Wear eye protection/face protection.

#### 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.

## Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing

# Respiratory protection

In case of inadequate ventilation wear respiratory protection.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical state: liquid

Colour: yellow-orange Odour: characteristic

pH-Value: not determined

#### Changes in the physical state



according to Regulation (EC) No 1907/2006

## **HRP-Green Solution A**

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Melting point:

Initial boiling point and boiling range:

Flash point:

not determined

not determined

not determined

**Flammability** 

Solid: not applicable
Gas: not applicable

**Explosive properties** 

The product is not: Explosive.

Lower explosion limits:

Upper explosion limits:

not determined

not determined

**Auto-ignition temperature** 

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties** 

Not oxidising.

Vapour pressure: not determined

Density: not determined

Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Highly flammable.

## 10.2. Chemical stability

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

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

# 10.5. Incompatible materials

No information available.

# 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects



according to Regulation (EC) No 1907/2006

## **HRP-Green Solution A**

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#### **Acute toxicity**

Toxic if swallowed.

Toxic in contact with skin.

Toxic if inhaled.

#### **ATEmix** calculated

ATE (oral) 136,8 mg/kg; ATE (dermal) 411,7 mg/kg; ATE (inhalation vapour) 4,10 mg/l; ATE (inhalation aerosol) 0,683 mg/l

CAS No	Chemical name	Chemical name						
	Exposure route	Dose		Species	Source	Method		
67-56-1	methanol							
	oral	LD50 mg/kg	5628	Rat				
	dermal	LD50 mg/kg	15800	Rabbit				
	inhalation (4 h) vapour	LC50	128 mg/l	Rat				
	inhalation aerosol	ATE	0,5 mg/l					
7722-84-1	Hydrogen peroxide solut	ion %						
	oral	ATE mg/kg	500					
	inhalation vapour	ATE	11 mg/l					
	inhalation aerosol	ATE	1,5 mg/l					

# 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

Causes damage to organs. (methanol)

#### 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 hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

# **SECTION 12: Ecological information**

# 12.1. Toxicity

The product is not: Ecotoxic.



according to Regulation (EC) No 1907/2006

## **HRP-Green Solution A**

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
67-56-1	methanol					
	Acute fish toxicity	LC50 15400 mg/l	96 h	nfish		
	Fish toxicity	NOEC 23,75 mg/l	90 0	d fish		
7722-84-1	Hydrogen peroxide soluti	on %				
	Acute fish toxicity	LC50 16,4 mg/l	96 h	fish		
	Acute algae toxicity	ErC50 1,38 mg/l	72 h	Algae		
	Acute bacteria toxicity	(466 mg/l)	0,5 h	microorganisms		

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

## 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.

# 12.6. Other adverse effects

No information available.

# **Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

## **Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

## Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

# **SECTION 14: Transport information**

# Land transport (ADR/RID)

14.1. UN number:	UN 1230
14.2. UN proper shipping name:	METHANOL

#### 14.3. Transport hazard class(es): 3 14.4. Packing group: Ш Hazard label: 3+6.1 Classification code: FT1 279 **Special Provisions:** Limited quantity: 1 L Excepted quantity: E2 Transport category: 2 Hazard No: 336



according to Regulation (EC) No 1907/2006

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Tunnel restriction code: D/E

Inland waterways transport (ADN)

**14.1. UN number:** UN 1230 **14.2. UN proper shipping name:** METHANOL

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3+6.1Classification code:FT1Special Provisions:279 802Limited quantity:1 LExcepted quantity:E2

Marine transport (IMDG)

14.1. UN number:UN 123014.2. UN proper shipping name:METHANOL

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3+6.1Special Provisions:279Limited quantity:1 LExcepted quantity:E2EmS:F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** UN 1230 **14.2. UN proper shipping name:** METHANOL

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3+6.1Special Provisions:A113Limited quantity Passenger:1 LPassenger LQ:Y341Excepted quantity:E2

IATA-packing instructions - Passenger:352IATA-max. quantity - Passenger:1 LIATA-packing instructions - Cargo:364IATA-max. quantity - Cargo:60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: Combustible liquid. Toxic.

# 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

# **SECTION 15: Regulatory information**

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

# **EU** regulatory information

Restrictions on use (REACH, annex XVII):

Entry 69: methanol



according to Regulation (EC) No 1907/2006

**HRP-Green Solution A** 

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Information according to 2012/18/EU

(SEVESO III):

**H2 ACUTE TOXIC** 

Additional information: P5c

**National regulatory information** 

Employment restrictions: Observe restrictions to employment for juvenils 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): 2 - obviously hazardous to water

Skin resorption/Sensitization: Permeates easily through outer skin and causes poisoning.

## 15.2. Chemical safety assessment

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

### **SECTION 16: Other information**

#### Changes

This data sheet contains changes from the previous version in section(s):

2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

#### 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

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



according to Regulation (EC) No 1907/2006

## **HRP-Green Solution A**

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# Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 3; H301	Calculation method
Acute Tox. 3; H311	Calculation method
Acute Tox. 3; H331	Calculation method
STOT SE 1; H370	Calculation method

## Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H271 May cause fire or explosion; strong oxidiser.

H301 Toxic if swallowed.

H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.

H302 Harmful if swallowed.
H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled. H332 Harmful if inhaled.

H370 Causes damage to organs.

H412 Harmful to aquatic life with long lasting effects.

#### **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.)



according to Regulation (EC) No 1907/2006

## **HRP-Green Solution B**

Revision date: 30.04.2020 Product code: SB-0007b Page 1 of 8

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

#### 1.1. Product identifier

HRP-Green Solution B

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

#### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH Street: Fischkai 1

Place: D-27572 Bremerhaven

Telephone: +49 (0) 471/4832-300 Telefax: +49 (0) 471/4832-509

e-mail: info@zytovision.com
Internet: www.zytovision.com

1.4. Emergency telephone +49 (0) 471/4832-300
number: 9am - 5pm (CET)

#### **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

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

Hazard categories:

Respiratory or skin sensitisation: Skin Sens. 1A

Hazard Statements:

May cause an allergic skin reaction.

# 2.2. Label elements

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

# Hazard components for labelling

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Signal word: Warning

Pictograms:



#### **Hazard statements**

H317 May cause an allergic skin reaction.

# **Precautionary statements**

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

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

## 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

# 3.2. Mixtures



according to Regulation (EC) No 1907/2006

# **HRP-Green Solution B**

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#### **Hazardous components**

CAS No	Chemical name	Chemical name			
	EC No	REACH No			
	GHS Classification				
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)			< 20 %	
	-	613-167-00-5			
	Acute Tox. 2, Acute Tox. 2, Acute Tox. 3, Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1A, Aquatic Acute 1 (M-Factor = 100), Aquatic Chronic 1 (M-Factor = 100); H330 H310 H301 H314 H318 H317 H400 H410 EUH071				

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

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

#### After contact with eyes

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

#### After ingestion

Rinse mouth immediately and drink 1 glass of of water.

# 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.

## 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

# Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

# **SECTION 6: Accidental release measures**

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

# 6.2. Environmental precautions

Do not allow to enter into surface water or drains.



according to Regulation (EC) No 1907/2006

## **HRP-Green Solution B**

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# 6.3. Methods and material for containment and cleaning up

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

No special measures are necessary.

#### Advice on protection against fire and explosion

No special fire protection measures are necessary.

# 7.2. Conditions for safe storage, including any incompatibilities

# Requirements for storage rooms and vessels

Keep container tightly closed.

#### Hints on joint storage

No special measures are necessary.

# Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

# 7.3. Specific end use(s)

The product is intended for professional use.

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL

# **DNEL/DMEL values**

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
56-81-5	Glycerol			
Worker DNEL,	long-term	inhalation	local	56 mg/m³

## **PNEC** values

CAS No	Substance		
Environmental	Environmental compartment Value		
56-81-5	I-5 Glycerol		
Freshwater 0,885 mg/l			
Marine water 0,088 mg/l		0,088 mg/l	
Freshwater sediment 3,3 mg/kg		3,3 mg/kg	
Marine sediment 0,		0,33 mg/kg	
Micro-organisms in sewage treatment plants (STP)		1000 mg/l	
Soil 0		0,141 mg/kg	



# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

## **HRP-Green Solution B**

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#### 8.2. Exposure controls

## Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

#### Eye/face protection

Wear eye protection/face protection.

#### 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.

#### Skin protection

Use of protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

# **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless
Odour: odourless

pH-Value: not determined

Changes in the physical state

Melting point:

Initial boiling point and boiling range:

Flash point:

not determined

not determined

not determined

**Flammability** 

Solid: not applicable
Gas: not applicable

**Explosive properties** 

The product is not: Explosive.

Lower explosion limits:

Upper explosion limits:

not determined

not determined

**Auto-ignition temperature** 

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties** 

Not oxidising.

Vapour pressure: not determined

Density: not determined

Water solubility: easily soluble

Solubility in other solvents

not determined



# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

# **HRP-Green Solution B**

Revision date: 30.04.2020 Product code: SB-0007b Page 5 of 8

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

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

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

none

#### 10.5. Incompatible materials

No information available.

#### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

# 11.1. Information on toxicological effects

#### **Acute toxicity**

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

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
55965-84-9	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)					
	oral	ATE 1 mg/kg	100			
	dermal	ATE 5	50 mg/kg			
	inhalation vapour	ATE (	0,5 mg/l			
	inhalation aerosol	ATE (	0,05 mg/l			

#### Irritation and corrosivity

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

#### Sensitising effects

May cause an allergic skin reaction. (reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1))

# 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.



# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

## **HRP-Green Solution B**

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#### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

# **SECTION 12: Ecological information**

# 12.1. Toxicity

The product is not: Ecotoxic.

# 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### 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.

#### 12.6. Other adverse effects

No information available.

#### **Further information**

Avoid release to the environment.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

#### **Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

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

## **SECTION 14: Transport information**

Land 1	transi	port (	(ADR	(RID)
--------	--------	--------	------	-------

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

## Inland waterways transport (ADN)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

# Marine transport (IMDG)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

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

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.



# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**HRP-Green Solution B** 

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14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No dangerous good in sense of this transport regulation.

# **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 Not subject to 2012/18/EU (SEVESO III)

(SEVESO III):

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile

work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

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

# **SECTION 16: Other information**

# Changes

This data sheet contains changes from the previous version in section(s):

2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

#### 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

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



according to Regulation (EC) No 1907/2006

## **HRP-Green Solution B**

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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

#### Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Sens. 1A; H317	Calculation method

## Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life

ery toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

**EUH071** Corrosive to the respiratory tract.

## **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.)



# **Safety Data Sheet**

according to UK REACH Regulation

## **Nuclear Blue Solution**

Revision date: 26.04.2022 Product code: CS-0002 Page 1 of 9

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

#### 1.1. Product identifier

Nuclear Blue Solution

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

#### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven

Telephone: +49 (0) 471/4832-300 Telefax: +49 (0) 471/4832-509

e-mail: info@zytovision.com
Internet: www.zytovision.com

1.4. Emergency telephone +49 (0) 471/4832-300

number: 9am - 5pm (CET)

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

#### **GB CLP Regulation**

STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

# 2.2. Label elements

#### **GB CLP Regulation**

# Hazard components for labelling

ethanediol, ethylene glycol

Signal word: Warning

Pictograms:



# **Hazard statements**

H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.

# **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P314 Get medical advice/attention if you feel unwell.

# Labelling of packages where the contents do not exceed 125 ml

Signal word: Warning

Pictograms:



#### 2.3. Other hazards

No information available.

#### **SECTION 3: Composition/information on ingredients**



# **Safety Data Sheet**

according to UK REACH Regulation

#### **Nuclear Blue Solution**

Revision date: 26.04.2022 Product code: CS-0002 Page 2 of 9

#### 3.2. Mixtures

#### **Hazardous components**

CAS No	Chemical name	Chemical name			Quantity
	EC No	Index No	REACH	No	
	Classification (GB CLP Regulat	ion)	-		
107-21-1	ethanediol, ethylene glycol			20 - < 40 %	
	203-473-3	603-027-00-1	01-2119	9456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373				
64-19-7	Acetic acid %			< 20 %	
	200-580-7	607-002-00-6			
	Flam. Liq. 3, Met. Corr. 1, Skin Corr. 1A; H226 H290 H314				

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		
107-21-1	203-473-3	203-473-3 ethanediol, ethylene glycol	
	oral: LD50 = 7712 mg/kg		
64-19-7	200-580-7 Acetic acid %		< 20 %
	oral: LD50 = 3310 mg/kg Skin Corr. 1A; H314: >= 90 - 100 Skin Corr. 1B; H314: >= 25 - < 90 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25		

# **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. Medical treatment necessary.

#### After contact with skin

Wash with plenty of water. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary.

#### After contact with eyes

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

#### After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

## 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.

#### 5.3. Advice for firefighters



# **Safety Data Sheet**

according to UK REACH Regulation

#### **Nuclear Blue Solution**

Revision date: 26.04.2022 Product code: CS-0002 Page 3 of 9

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

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

# **SECTION 6: Accidental release measures**

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

#### General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

#### For cleaning up

Absorb with liquid-binding material (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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

# Advice on protection against fire and explosion

No special fire protection measures are necessary.

# Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

# 7.2. Conditions for safe storage, including any incompatibilities

# Requirements for storage rooms and vessels

Keep container tightly closed.

# Hints on joint storage

No special measures are necessary.

## Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

## 7.3. Specific end use(s)

The product is intended for professional use.

# **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters



according to UK REACH Regulation

# Nuclear Blue Solution Product code: CS-0002 Page 4 of 9

#### **Exposure limits (EH40)**

Revision date: 26.04.2022

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
64-19-7	Acetic acid	10	25		TWA (8 h)	WEL
		20	50		STEL (15 min)	WEL
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL

# **DNEL/DMEL values**

CAS No	Substance								
DNEL type		Exposure route	Effect	Value					
107-21-1	ethanediol, ethylene glycol								
Worker DNEL	, long-term	inhalation	local	35 mg/m³					
Worker DNEL, long-term		dermal	systemic	106 mg/kg bw/day					
64-19-7	4-19-7 Acetic acid %								
Worker DNEL	, long-term	inhalation	local	25 mg/m³					
Worker DNEL	., acute	inhalation	local	25 mg/m³					

#### **PNEC values**

CAS No	Substance				
Environmen	tal compartment	Value			
107-21-1	ethanediol, ethylene glycol				
Freshwater	Freshwater				
Marine wate	r	1 mg/l			
Freshwater	Freshwater sediment				
Marine sedir	Marine sediment				
Soil		1,53 mg/kg			
64-19-7	Acetic acid %				
Freshwater		3,059 mg/l			
Marine wate	Marine water				
Freshwater sediment		11,36 mg/kg			
Marine sedir	Marine sediment				
Soil		0,47 mg/kg			

#### 8.2. Exposure controls

# Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

# Individual protection measures, such as personal protective equipment

# Eye/face protection

Wear eye/face protection.

# **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.



# **Safety Data Sheet**

according to UK REACH Regulation

#### **Nuclear Blue Solution**

Revision date: 26.04.2022 Product code: CS-0002 Page 5 of 9

## Skin protection

Use of protective clothing.

# Respiratory protection

In case of inadequate ventilation wear respiratory protection.

# **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state: liquid Colour: violet

Odour: characteristic

## Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

not determined

boiling range:

Flash point: not determined

**Flammability** 

Solid/liquid: not applicable
Gas: not applicable

## **Explosive properties**

The product is not: Explosive.

Lower explosion limits:

Upper explosion limits:

Auto-ignition temperature:

Decomposition temperature:

pH-Value:

Not determined

not determined

not determined

rot determined

not determined

solubility:

easily soluble

# Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density:

not determined

not determined

not determined

not determined

not determined

#### 9.2. Other information

## Information with regard to physical hazard classes

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Solid content: not determined Evaporation rate: not determined

**Further Information** 

# **SECTION 10: Stability and reactivity**

# 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

## 10.2. Chemical stability



according to UK REACH Regulation

#### **Nuclear Blue Solution**

Revision date: 26.04.2022 Product code: CS-0002 Page 6 of 9

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

none

#### 10.5. Incompatible materials

No information available.

#### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

# 11.1. Information on hazard classes as defined in GB CLP Regulation

## **Acute toxicity**

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

CAS No	Chemical name							
	Exposure route	Dose	Species	Source	Method			
107-21-1	ethanediol, ethylene glycol							
	oral	LD50 7712 mg/kg	Rat	ECHA				
64-19-7	Acetic acid %							
	oral	LD50 3310 mg/kg	Rat	GESTIS				

## 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

May cause damage to organs through prolonged or repeated exposure. (ethanediol, ethylene glycol)

# **Aspiration hazard**

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

#### Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

The product is not: Ecotoxic.



# **Safety Data Sheet**

according to UK REACH Regulation

## **Nuclear Blue Solution**

Revision date: 26.04.2022 Product code: CS-0002 Page 7 of 9

CAS No	Chemical name							
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method	
107-21-1	ethanediol, ethylene glycol							
	Acute fish toxicity	LC50 mg/l	72860	96 h	fish	ECHA		
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	aquatic invertebrates	ECHA		
64-19-7	Acetic acid %							
	Acute fish toxicity	LC50 mg/l	>300.82	l .	Oncorhynchus mykiss (Rainbow trout)	ECHA		
	Acute algae toxicity	ErC50 mg/l	>300.82		Skeletonema costatum	ECHA		
	Acute crustacea toxicity	EC50	65 mg/l	48 h	Daphnia magna	Janssen et al		

#### 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
64-19-7	Acetic acid %	-0,17

## 12.4. Mobility in soil

The product has not been tested.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

# 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**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

# Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

# **SECTION 14: Transport information**

## Land transport (ADR/RID)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.



according to UK REACH Regulation

	Nuclear Blue Solution	
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14.4. Packing group:	No dangerous good in sense of this transport regulation.	
Inland waterways transport (ADN)		
14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.	
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.	
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.	
14.4. Packing group:	No dangerous good in sense of this transport regulation.	
Marine transport (IMDG)		
14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.	
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.	
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.	
14.4. Packing group:	No dangerous good in sense of this transport regulation.	
Air transport (ICAO-TI/IATA-DGR)		
14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.	
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.	
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.	
14.4. Packing group:	No dangerous good in sense of this transport regulation.	
14.6. Special precautions for user		

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

# **SECTION 15: Regulatory information**

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

## **EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

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).

Water hazard class (D): 1 - slightly 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

This data sheet contains changes from the previous version in section(s): 2,4,5,6,7,8,9,10,11,12,13,14,15,16.

#### 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

ATE: Acute toxicity estimate LC50: Lethal concentration, 50%



## according to UK REACH Regulation

#### **Nuclear Blue Solution**

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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: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Classification for mixtures and used evaluation method according to GB CLP Regulation

	<u> </u>
Classification	Classification procedure
STOT RE 2; H373	Calculation method

#### Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure.

# **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.)

Telefax: +49 (0) 471/4832-509



# **Safety Data Sheet**

according to UK REACH Regulation

# **Mounting Solution (alcoholic)**

Revision date: 30.05.2024 Product code: MT-0004 Page 1 of 12

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

#### 1.1. Product identifier

Mounting Solution (alcoholic)

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

#### Use of the substance/mixture

The product is intended for professional use.

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

Company name: ZytoVision GmbH

Street: Fischkai 1

Place: D-27572 Bremerhaven
Telephone: +49 (0) 471/4832-300

E-mail: info@zytovision.com
Internet: www.zytovision.com

1.4. Emergency telephone +49 (0) 471/4832-300
number: 9am - 5pm (CET)

## **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

## **GB CLP Regulation**

Flam. Liq. 3; H226 Acute Tox. 4; H312 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

## 2.2. Label elements

# **GB CLP Regulation**

## Hazard components for labelling

xylene

Signal word: Warning

Pictograms:







# **Hazard statements**

H226 Flammable liquid and vapour.

H312+H332 Harmful in contact with skin or if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

# **Precautionary statements**

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

smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.



according to UK REACH Regulation

**Mounting Solution (alcoholic)** 

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P403+P235 Store in a well-ventilated place. Keep cool.

Special labelling of certain mixtures

EUH208 Contains methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl

methacrylate, n-butyl methacrylate. May produce an allergic reaction.

Labelling of packages where the contents do not exceed 125 ml

Signal word: Warning

Pictograms:







#### 2.3. Other hazards

No information available.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

# Relevant ingredients

CAS No	Chemical name					
	EC No	Index No	REACH No			
	Classification (GB CLP Regulatio	n)				
1330-20-7	xylene			40 - 70 %		
	215-535-7	601-022-00-9				
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 1; H226 H332 H312 H315 H	SE 3, STOT RE 2, Asp.				
80-62-6	methyl 2-methylprop-2-enoate; m	hacrylate	< 1 %			
	201-297-1	607-035-00-6				
	Flam. Liq. 2, Skin Irrit. 2, Skin Sei	ns. 1, STOT SE 3; H225 H315 H317 H	335			
97-88-1	n-butyl methacrylate					
	202-615-1	607-033-00-5				
	Flam. Liq. 3, Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H226 H315 H319 H317 H335					

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				
1330-20-7	215-535-7	xylene	40 - 70 %		
	inhalation: LC50 = 19,8 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal:				
	ATE = 1100 mg/kg; oral: LD50 = 5000 mg/kg				

# **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

## After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

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# **Safety Data Sheet**

according to UK REACH Regulation

# **Mounting Solution (alcoholic)**

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#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

#### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

#### After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

#### 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

Carbon dioxide (CO2), Foam, Extinguishing powder.

#### Unsuitable extinguishing media

Water.

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

Flammable. Vapours can form explosive mixtures with air.

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## **SECTION 6: Accidental release measures**

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

#### General advice

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### 6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

# 6.3. Methods and material for containment and cleaning up

# For cleaning up

Absorb with liquid-binding material (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



according to UK REACH Regulation

# **Mounting Solution (alcoholic)**

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# Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

#### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

# Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

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

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

# Further information on storage conditions

Store, tightly closed, in the original vessel at conditions indicated on the label.

## 7.3. Specific end use(s)

The product is intended for professional use.

## **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

#### **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
80-62-6	Methyl methacrylate	50	208		TWA (8 h)	WEL
		100	416		STEL (15 min)	WEL
1330-20-7	Xylene: mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

## **Biological Monitoring Guidance Values (EH40)**

CAS No	Substance	Parameter	Value	Test material	Sampling time
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid (creatinine)	650 mmol/mol		Post shift



according to UK REACH Regulation

# **Mounting Solution (alcoholic)**

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#### **DNEL/DMEL values**

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
1330-20-7	xylene			
Worker DNEL	, long-term	inhalation	systemic	221 mg/m³
Worker DNEL	, acute	inhalation	systemic	442 mg/m³
Worker DNEL	, long-term	inhalation	local	221 mg/m³
Worker DNEL	, acute	inhalation	local	442 mg/m³
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	; methyl methacrylate		
Worker DNEL	, long-term	inhalation	systemic	208 mg/m³
Worker DNEL	, long-term	inhalation	local	208 mg/m³
Worker DNEL	, long-term	dermal	systemic	13,67 mg/kg bw/day

#### **PNEC values**

CAS No	Substance	
Environmen	al compartment	Value
1330-20-7	xylene	
Freshwater		0,327 mg/l
Marine wate		0,327 mg/l
Freshwater	sediment	12,46 mg/kg
Marine sedir	nent	12,46 mg/kg
Micro-organ	sms in sewage treatment plants (STP)	6,58 mg/l
Soil		2,31 mg/kg
80-62-6	methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate	
Freshwater		0,94 mg/l
Marine wate		0,94 mg/l
Freshwater sediment		5,74 mg/kg
Micro-organ	sms in sewage treatment plants (STP)	10 mg/l
Soil	Soil	

#### 8.2. Exposure controls

## Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

# Individual protection measures, such as personal protective equipment

## Eye/face protection

Suitable eye protection: goggles.

## 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.

## Skin protection

Use of protective clothing.

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# **Mounting Solution (alcoholic)**

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insoluble in water.

## Respiratory protection

In case of inadequate ventilation wear respiratory protection.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical state: viscous
Colour: colourless
Odour: characteristic

Melting point/freezing point:

Boiling point or initial boiling point and

137 °C

boiling range:

Flammability: not determined Lower explosion limits: not determined Upper explosion limits: not determined 23 °C Flash point: not determined Auto-ignition temperature: not determined Decomposition temperature: pH-Value: not determined Viscosity / kinematic: 473,7 mm<sup>2</sup>/s Water solubility: The study does not need to be conducted because the substance is known to be

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

Density:

Relative vapour density:

Particle characteristics:

not determined
not determined
not determined
not determined
not applicable

# 9.2. Other information

# Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Viscosity / dynamic: 250-450 mPa·s

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Flammable.

## 10.2. Chemical stability

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

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.



according to UK REACH Regulation

# **Mounting Solution (alcoholic)**

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#### 10.5. Incompatible materials

No information available.

## 10.6. Hazardous decomposition products

No known hazardous decomposition products.

# **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in GB CLP Regulation

#### **Acute toxicity**

Harmful in contact with skin.

Harmful if inhaled.

#### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) 1571 mg/kg; ATE (inhalation vapour) 28,29 mg/l; ATE (inhalation dust/mist) 2,143 mg/l

CAS No	Chemical name	Chemical name					
	Exposure route	Dose		Species	Source	Method	
1330-20-7	xylene	xylene					
	oral	LD50 mg/kg	5000	Rat	GESTIS		
	dermal	ATE mg/kg	1100				
	inhalation (4 h) vapour	LC50	19,8 mg/l	Rat	GESTIS		
	inhalation dust/mist	ATE	1,5 mg/l				

#### Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

## Sensitising effects

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

Contains methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl methacrylate, n-butyl methacrylate. May produce an allergic reaction.

# Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

## STOT-single exposure

May cause respiratory irritation. (xylene)

## STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (xylene)

#### **Aspiration hazard**

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

# 11.2. Information on other hazards

# Other information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

# **SECTION 12: Ecological information**

# 12.1. Toxicity

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

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# **Safety Data Sheet**

according to UK REACH Regulation

# **Mounting Solution (alcoholic)**

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CAS No	Chemical name						
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
1330-20-7	xylene						
	Acute algae toxicity	ErC50	3,2 mg/l		Selenastrum capricornutum	Galassi et al. 1988	
80-62-6	methyl 2-methylprop-2-e	noate; methy	/l 2-methylpro	penoate	; methyl methacrylate		
	Acute fish toxicity	LC50 mg/l	> 79	96 h	fish		
	Acute algae toxicity	ErC50 mg/l	> 110	72 h	Algae		
	Acute crustacea toxicity	EC50	69 mg/l	48 h	aquatic invertebrates		
97-88-1	n-butyl methacrylate						
	Acute fish toxicity	LC50 mg/l	5,57		Oryzias latipes (Ricefish)		
	Acute crustacea toxicity	EC50 mg/l	25,4	48 h	Daphnia magna		

# 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
1330-20-7	xylene	3,15

# 12.4. Mobility in soil

The product has not been tested.

## 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

## 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

# 12.7. Other adverse effects

No information available.

#### **Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

# **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

## **Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

# Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

# **SECTION 14: Transport information**



according to UK REACH Regulation

Mounting Solution (alcoholic)				
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Land transport (ADR/RID)				
14.1. UN number or ID number:	UN 1307			
14.2. UN proper shipping name:	XYLENES			
14.3. Transport hazard class(es):	3			
14.4. Packing group:	III			
Hazard label:	3			
Classification code:	F1			
Limited quantity:	5 L			
Excepted quantity:	E1			
Transport category:	3			
Hazard No:	30			

D/E

Inland waterways transport (ADN)

Tunnel restriction code:

14.1. UN number or ID number:	UN 1307
14.2. UN proper shipping name:	XYLENES

14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3
Classification code:	F1
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1307
14.2. UN proper shipping name:	XYLENES

14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3
Special Provisions:	223
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1307
14.2. UN proper shipping name:	XYLENES

14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3
Special Provisions:	A3
Limited quantity Passenger:	10 L
Passenger LQ:	Y344
Excepted quantity:	E1

IATA-packing instructions - Passenger:	355
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	366
IATA-max. quantity - Cargo:	220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Combustible liquid.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Print date: 05.06.2024



# **Safety Data Sheet**

according to UK REACH Regulation

**Mounting Solution (alcoholic)** 

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Other applicable information

Hazchem code: 3Y

#### **SECTION 15: Regulatory information**

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

# **EU** regulatory information

2012/18/EU (SEVESO III):

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to Directive

P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the

'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

Skin resorption/Sensitization: Permeates easily through outer skin and causes poisoning. Causes

allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

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

# **SECTION 16: Other information**

# Changes

This data sheet contains changes from the previous version in section(s): 2,4,5,6,7,8,9,10,11,12,13,15,16.



## according to UK REACH Regulation

# **Mounting Solution (alcoholic)**

Revision date: 30.05.2024 Product code: MT-0004 Page 11 of 12

#### Abbreviations and acronyms

Flam. Liq: Flammable liquids Acute Tox: Acute toxicity Asp. Tox: Aspiration hazard Skin Irrit: Skin irritation Eye Irrit: Eye irritation Skin Sens: Skin sensitisation

STOT SE: Specific target organ toxicity - single exposure STOT RE: Specific target organ toxicity - repeated exposure

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** 

EC/EEC: European Community/European Economic Community

EU: European Union

CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration

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

M-factor: Multiplying factor

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

DGR: Dangerous Goods Regulations

ICAO: International Civil Aviation Organization

TI: Technical Instructions

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: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Print date: 05.06.2024



# **Safety Data Sheet**

according to UK REACH Regulation

# **Mounting Solution (alcoholic)**

Revision date: 30.05.2024 Product code: MT-0004 Page 12 of 12

#### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Acute Tox. 4; H312	Calculation method
Acute Tox. 4; H332	Calculation method
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H335	Calculation method
STOT RE 2; H373	Calculation method

#### Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H312+H332 Harmful in contact with skin or if inhaled.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H319 Causes serious eve irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

EUH208 Contains methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate; methyl

methacrylate, n-butyl methacrylate. May produce an allergic reaction.

# **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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)