

## SAFETY DATA SHEET

# DXA.4228

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

#### 1.1. Product identifier

Trade name

DXA.4228

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

Relevant identified uses of the substance or mixture

Binding agent for primer

Restricted to professional users.

Uses advised against

None known.

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

Company and address

**Vanora AG**

Neulandstrasse 3

CH-6203 Sempach Station

+41 41 469 92 13

www.vanora.ch

E-mail

info@vanora.ch

Revision

17/10/2025

SDS Version

4.0

Date of previous version

28/04/2025 (3.0)

#### 1.4. Emergency telephone number

+41 41 469 92 13 (Mo - Fr 7:30 - 17:00 MEZ/CET)

(+41 44 251 51 51 Tox Center)

145 (Tox Info Suisse)

### SECTION 2: Hazards identification

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

Not classified according to Regulation (EC) No. 1272/2008 (CLP).

#### 2.2. Label elements

Hazard pictogram(s)

Not applicable.

Signal word

Not applicable.

Hazard statement(s)

Not applicable.

Precautionary statement(s)

▼ General

Not applicable.

▼ Prevention

Not applicable.

▼ Response

Not applicable.

▼ Storage

Not applicable.

▼ Disposal

Not applicable.

▼ Hazardous substances

1,2-benzisothiazol-3(2H)-one

mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

▼ Additional labelling

EUH208, Contains mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one, 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

EUH210, Safety data sheet available on request.

The product contains a biocidal product.

### 2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. ▼ Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
1,2-benzisothiazol-3(2H)-one	CAS No.: 2634-33-5 EC No.: 220-120-9 REACH: BPR Index No.: 613-088-00-6	<0.036%	Acute Tox. 4, H302 (ATE: 450.00 mg/kg) Skin Irrit. 2, H315 Skin Sens. 1A, H317 (SCL: 0.036 %) Eye Dam. 1, H318 Acute Tox. 2, H330 (ATE: 0.21 mg/L) Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	
mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one	CAS No.: 55965-84-9 EC No.: REACH: BPR Index No.: 613-167-00-5	<0.0015%	EUH071 Acute Tox. 3, H301 (ATE: 65.00 mg/kg) Acute Tox. 2, H310 (ATE: 87.12 mg/kg) Skin Corr. 1C, H314 (SCL: 0.60 %) Skin Irrit. 2, H315 (SCL: 0.06 %) Skin Sens. 1A, H317 (SCL: 0.0015 %) Eye Dam. 1, H318 (SCL: 0.60 %)	

Eye Irrit. 2, H319 (SCL: 0.06 %)  
Acute Tox. 2, H330 (ATE: 0.31 mg/L)  
Acute Tox. 2, H330  
Aquatic Acute 1, H400 (M=100)  
Aquatic Chronic 1, H410 (M=100)

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

#### Other information

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.  
Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

##### ▼ Inhalation

In case of discomfort: bring the person into fresh air.

##### Skin contact

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

##### ▼ Eye contact

Rinse gently with lukewarm water. Remove any contact lenses if this is easy to do. Continue rinsing. In case of persistent eye irritation or discomfort: Seek medical help.

##### ▼ Ingestion

Rinse and flush mouth thoroughly and consume large quantities of water. In case of continued discomfort: seek medical assistance and bring this safety data sheet.

##### Burns

Not applicable.

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

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact.

Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

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

Treat symptomatically.

#### Information to medics

Bring this safety data sheet or the label from this product.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

#### 5.3. Advice for firefighters

No specific requirements.

### SECTION 6: Accidental release measures

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

Ensure adequate ventilation, especially in confined areas.  
Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.  
Keep unauthorized persons away from the spill

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.  
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.  
See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.  
See section 8 "Exposure controls/personal protection" for information on personal protection.

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

##### Recommended storage material

Always store in containers of the same material as the original container.

##### Storage conditions

Do not freeze!

##### Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

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

This product should only be used for applications quoted in section 1.2.

### SECTION 8: Exposure controls/personal protection

#### 8.1. ▼ Control parameters

##### sodium hydroxide

Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 2 einatembarer Staub(Gesamtstaub)

Short term exposure limit (15 minutes) (mg/m<sup>3</sup>): 2 einatembarer Staub(Gesamtstaub)

##### Annotations:

SSC = No risk of damage to the unborn child if the occupational exposure limit (OEL) value is met.

mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one  
 Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 0,2 einatembarer Staub(Gesamtstaub)  
 Short term exposure limit (15 minutes) (mg/m<sup>3</sup>): 0,4 einatembarer Staub(Gesamtstaub)

Annotations:

S = Sensitizing effect.

SSC = No risk of damage to the unborn child if the occupational exposure limit (OEL) value is met.

Workplace exposure limits: MAK-/BAT values, physical effects, physical stress. (Publication number 1903.d)

**DNEL**

sodium hydroxide

Duration:	Route of exposure:	DNEL:
Short term	Inhalation	1 mg/m <sup>3</sup>

**PNEC**

No data available.

**8.2. ▼ Exposure controls**

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

▼ Hygiene measures

Wash hands after use.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.




Respiratory Equipment

Type	Class	Colour	Standards
No special when used as intended.			

Skin protection

Recommended	Type/Category	Standards
No specific requirements	-	-

#### Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0.4	> 480	EN374-2, EN16523-1, EN388	
Butyl	0,3	> 480	EN374-2, EN16523-1, EN388	
Latex	0.4	-	EN374-2, EN388	

#### Eye protection

Type	Standards	
Wear safety glasses with side shields.	EN166	

## SECTION 9: Physical and chemical properties

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

#### Physical state

Liquid

#### Colour

White

#### Odour / Odour threshold

Characteristic

#### pH

~7.0

#### Density (g/cm<sup>3</sup>)

~1.0 (20 °C)

#### Kinematic viscosity

~700 mm<sup>2</sup>/s (20 °C)

#### Particle characteristics

Does not apply to liquids.

#### Phase changes

##### Melting point/Freezing point (°C)

No data available.

##### Softening point/range (°C)

Does not apply to liquids.

##### Boiling point (°C)

No data available.

##### Vapour pressure

No data available.

Relative vapour density

No data available.

Decomposition temperature (°C)

No data available.

Data on fire and explosion hazards

Flash point (°C)

No data available.

Flammability (°C)

No data available.

Auto-ignition temperature (°C)

No data available.

Lower and upper explosion limit (% v/v)

No data available.

Solubility

Solubility in water

No data available.

n-octanol/water coefficient (LogKow)

No data available.

Solubility in fat (g/L)

No data available.

9.2. Other information

Other physical and chemical parameters

No data available.

Oxidizing properties

No data available.

## SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

▼ Acute toxicity

Product/substance	1,2-benzisothiazol-3(2H)-one
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Test method: OECD 401  
 Species: Rat  
 Route of exposure: Oral  
 Test: LD50  
 Result: 532 mg/kg

Product/substance 1,2-benzisothiazol-3(2H)-one  
 Test method: OECD 403  
 Species: Rat  
 Route of exposure: Inhalation  
 Test: LC50 (dust)  
 Result: 0.4 mg/L

Product/substance mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one  
 Species: Rat  
 Route of exposure: Inhalation  
 Test: LC50  
 Result: 0.31 mg/L

Product/substance mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one  
 Species: Rat, male  
 Route of exposure: Oral  
 Test: LD50  
 Result: 64 mg/kg

Product/substance mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one  
 Species: Rabbit, male  
 Route of exposure: Dermal  
 Test: LD50  
 Result: 87.12 mg/kg

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

▼ Skin corrosion/irritation

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

▼ Serious eye damage/irritation

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

▼ Respiratory sensitisation

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

Skin sensitisation

This product contains substances that may trigger an allergic reaction in already sensitized persons.

▼ Germ cell mutagenicity

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

▼ Carcinogenicity

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

▼ Reproductive toxicity

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

▼ STOT-single exposure

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

▼ STOT-repeated exposure

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

▼ Aspiration hazard

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

11.2. Information on other hazards

Long term effects

None known.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

None known.

SECTION 12: Ecological information

12.1. ▼ Toxicity

Product/substance	1,2-benzisothiazol-3(2H)-one
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	0.74 mg/L

Product/substance	1,2-benzisothiazol-3(2H)-one
Species:	Daphnia, Daphnia magna
Duration:	48 hours
Test:	EC50
Result:	1 mg/L

Product/substance	1,2-benzisothiazol-3(2H)-one
Test method:	OECD 211
Species:	Daphnia, Daphnia magna
Duration:	21 days
Test:	NOEC
Result:	1.2 mg/L

Product/substance	1,2-benzisothiazol-3(2H)-one
Test method:	OECD 215
Species:	Fish, Oncorhynchus mykiss
Duration:	28 days
Test:	NOEC
Result:	0.21 mg/L

Product/substance	1,2-benzisothiazol-3(2H)-one
Test method:	OECD 201
Species:	Algae, Selenastrum capricornutum
Duration:	72 hours
Test:	NOEC
Result:	0.04 mg/L

Product/substance	mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one
Test method:	OECD 201

Species: Algae, *Pseudokirchneriella subcapitata*  
 Duration: 72 hours  
 Test: EC50  
 Result: 0.048 mg/L

Product/substance: mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one  
 Test method: OECD 202  
 Species: *Daphnia*, *Daphnia magna*  
 Duration: 48 hours  
 Test: EC50  
 Result: 0.1 mg/L

Product/substance: mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one  
 Test method: OECD 203  
 Species: Fish, *Oncorhynchus mykiss*  
 Duration: 96 hours  
 Test: LC50  
 Result: 0.22 mg/L

Product/substance: mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one  
 Test method: OECD 211  
 Species: *Daphnia*, *Daphnia magna*  
 Duration: 21 days  
 Test: NOEC  
 Result: 0.004 mg/L

Product/substance: mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one  
 Test method: OECD 210  
 Species: Fish, *Oncorhynchus mykiss*  
 Duration: 28 days  
 Result: 0.098 mg/L

Product/substance: mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one  
 Test method: OECD 201  
 Species: Algae, *Pseudokirchneriella subcapitata*  
 Duration: 72 hours  
 Test: NOEC  
 Result: 0.0012 mg/L

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

12.2. ▼ Persistence and degradability

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

12.3. ▼ Bioaccumulative potential

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

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

**SECTION 13: Disposal considerations**

13.1. Waste treatment methods

Product is not covered by regulations on dangerous waste.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

Waste description and -code

Waste plastic 07 02 13

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

**SECTION 14: Transport information**

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informatio n:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

**SECTION 15: Regulatory information**

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

▼ Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

Not applicable.

WGK classification

WGK class: WGK 1

Additional information

Not applicable.

▼ Sources

SR 822.115.2 Ordinance of the EAER on Dangerous Working Conditions for Young People of 4 December 2007 (Status as of 1 January 2013)

SR 813.12 Ordinance on the Placing on the Market and Handling of Biocidal Products (Ordinance on Biocidal Products, OBP) of 18 May 2005 (Status as of 1 December 2018)

SR 814.610 Ordinance on the movement of wastes of 22 June 2005 (Status as of 1 January 2020)

SR 814.610.1 DETEC ordinance concerning lists for the movement of wastes of 18 October 2005 (Status as of 1 January 2018)

SR 813.11 Ordinance on Protection against Dangerous Substances and Preparations (Chemicals Ordinance, ChemO) of 5 June 2015 (Status as of 1 April 2020)

15.2. Chemical safety assessment

No

SECTION 16: Other information

▼ Full text of H-phrases as mentioned in section 3

EUH071, Corrosive to the respiratory tract.

H301, Toxic if swallowed.

H302, Harmful if swallowed.

H310, Fatal in contact with skin.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

H318, Causes serious eye damage.

H319, Causes serious eye irritation.

H330, Fatal if inhaled.

H400, Very toxic to aquatic life.

H410, Very toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GWP = Global warming potential

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

Not applicable.

The safety data sheet is validated by

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#### Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: CH-en