

Safety data sheet

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BASF Safety data sheet according to the United Nations' Globally Harmonized System (UN GHS)

Date / Revised: 06.10.2025

Version: 1.0

Product: **Acronal® 5503 X**

(ID no. 30862346/SDS_GEN_00/EN)

Date of print 07.10.2025

1. Identification

Product identifier

Acronal® 5503 X

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Raw material for coatings for industrial or professional use

Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Regional Business Unit Dispersions Europe

Telephone: +49 621 60-0

E-mail address: ed-psr@basf.com

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

Aquatic Acute 3
Aquatic Chronic 3

For the classifications not written out in full in this section the full text can be found in section 16.

Label elements

Globally Harmonized System (GHS)

Hazard Statement:

H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P273	Avoid release to the environment.
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Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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Other hazards

According to UN GHS criteria

No specific dangers known, if the regulations/notes for storage and handling are considered. If the product adheres to skin, irritation may occur when it dries.

3. Composition/Information on Ingredients

Substances

Not applicable

Mixtures

Chemical nature

Aqueous dispersion of a polymer based on: acrylic ester, methacrylic ester, Styrene

Hazardous ingredients (GHS)

According to UN GHS criteria

2,2'-Oxydiethanol

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Content (W/W): $\geq 1\%$ - $< 3\%$
 CAS Number: 111-46-6
 EC-Number: 203-872-2
 INDEX-Number: 603-140-00-6

Acute Tox. 4 (oral)
 H302

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

Content (W/W): < 15 PPM
 CAS Number: 55965-84-9
 INDEX-Number: 613-167-00-5

Acute Tox. 3 (oral)
 Acute Tox. 2 (Inhalation - mist)
 Acute Tox. 2 (dermal)
 Skin Corr./Irrit. 1C
 Eye Dam./Irrit. 1
 Skin Sens. 1A
 Aquatic Acute 1
 Aquatic Chronic 1
 M-factor acute: 100
 M-factor chronic: 100
 H301, H317, H314, H310 + H330, H400, H410
 EUH071

Specific concentration limit:

Skin Corr./Irrit. 1C: $\geq 0,6\%$
 Skin Sens. 1A: $\geq 0,0015\%$
 Eye Dam./Irrit. 1: $\geq 0,6\%$
 Skin Corr./Irrit. 2: $0,06 - < 0,6\%$
 Eye Dam./Irrit. 2: $0,06 - < 0,6\%$

Hazardous ingredients (GHS)

According to UN GHS criteria

Bronopol

Content (W/W): ≤ 200 PPM
 CAS Number: 52-51-7
 EC-Number: 200-143-0
 INDEX-Number: 603-085-00-8

Acute Tox. 3 (Inhalation - dust)
 Acute Tox. 3 (oral)
 Acute Tox. 4 (dermal)
 Skin Irrit. 2
 Eye Dam. 1
 STOT SE 3 (irr. to respiratory syst.)
 Aquatic Acute 1
 Aquatic Chronic 1
 M-factor acute: 100
 M-factor chronic: 10
 H318, H315, H312, H335, H301 + H331, H400,
 H410

For the classifications not written out in full in this section the full text can be found in section 16.

4. First-Aid Measures

Description of first aid measures

Remove contaminated clothing.

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If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting unless told to by a poison control center or doctor.

Most important symptoms and effects, both acute and delayed

Symptoms: (Further) symptoms and / or effects are not known so far

Hazards: No hazards anticipated.

Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures**Extinguishing media**

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture

No particular hazards known.

Advice for fire-fighters

Special protective equipment:

No data available.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered.

6. Accidental Release Measures**Personal precautions, protective equipment and emergency procedures**

Use personal protective clothing. Avoid contact with skin and eyes.

Environmental precautions

Do not release untreated into natural waters.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

For large amounts: Pump off product.

7. Handling and Storage**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. After long storage, slight quantities of carbon monoxide may be formed. To our best knowledge, the occupational exposure limit (OEL) is not exceeded during use. Entering of tanks must only be performed after intensive cleaning and when it is ensured that residual vapours have been removed. Consideration of national laws and international standards for confined space entry should be taken in to account. In case of doubt, the concentration of Carbon monoxide must be determined.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Store protected against freezing.

Protect from temperatures below: 5 °C

Protect from temperatures above: 60 °C

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection**Control parameters**Components with occupational exposure limits

52-51-7: Bronopol

111-46-6: 2,2'-Oxydiethanol

55965-84-9: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

Exposure controlsPersonal protective equipment

Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc. Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g.

temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures

Hands and/or face should be washed before breaks and at the end of the shift. Avoid contact with skin and eyes.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State of matter:	liquid	
Form:	liquid, dispersion	
Colour:	white	
Odour:	almost odourless	
Odour threshold:	No data available.	
Melting point:	No data available.	
<i>Information on: Water</i>		
<i>Melting point:</i>	0 °C	

<i>Information on: Water</i>		
<i>Boiling point:</i>	100 °C	

Flammability:	not flammable	(derived from flash - and boiling point)
Lower explosion limit:	For liquids not relevant for classification and labelling.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Flash point:	not applicable	
Auto-ignition temperature:	No data available.	
Thermal decomposition:	No decomposition if used correctly.	
pH value:	6,5 - 8,0	(DIN ISO 976)
Viscosity, dynamic:	80 - 300 mPa.s (23 °C)	(DIN EN ISO 3219)
Solubility in water:	partly soluble (15 °C)	
Solubility (qualitative) :	No data available.	
Solubility (qualitative) :	No data available.	
Solubility (qualitative) :	No data available.	
Partitioning coefficient n-octanol/water (log Kow):	No data available.	

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Information on: Water

Vapour pressure: 23,4 hPa
(20 °C)
Literature data.

Relative density:

No data available.

Density: approx. 1,04 g/cm³
(20 °C)

(ISO 2811-1)

Relative vapour density (air):

Water content greater than 10%.

9.2. Other information**Information with regard to physical hazard classes**Explosives

Explosion hazard: not explosive

Oxidizing properties

Fire promoting properties: not fire-propagating

Self-heating substances and mixtures

Self heating ability: It is not a substance capable of
spontaneous heating.

Other safety characteristics

Miscibility with water:

miscible

Solids content: 51,0 - 53,0 %

(DIN EN ISO 3251)

Other Information: Range of particle size: < 0,1 µm - 10 µm

SAPT-Temperature:

Product does not fulfil criteria for polymerizing substances according to
transport regulations.

10. Stability and Reactivity**Reactivity**

No hazardous reactions if stored and handled as prescribed/indicated.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions. After long storage, slight
quantities of carbon monoxide may be formed.

Conditions to avoid

Avoid extreme temperatures.

Incompatible materials

Substances to avoid:

No substances known that should be avoided.

Hazardous decomposition products

:

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

LD50 rat (oral): > 2.000 - 10.000 mg/kg

Irritation

Assessment of irritating effects:

If the product adheres to skin, irritation may occur when it dries.

Not irritating to the eyes. Not irritating to the skin. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity:

The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

Not expected to cause reproductive toxicity (based on composition).

Developmental toxicity

Assessment of teratogenicity:

The data available for an assessment of the effect of the substance on developmental toxicity are not sufficient for a proper evaluation.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No adverse effects were observed after repeated inhalative exposure in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration hazard

not applicable

Other relevant toxicity information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The statement was derived from products of similar composition.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. Harmful to aquatic life with long lasting effects.

The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish:

LC50 (96 h) > 10 - 100 mg/l, Fish

The product has not been tested. The statement has been derived from the properties of the individual components.

Aquatic invertebrates:

LC50 (48 h), daphnia

not determined

Aquatic plants:

EC50 (72 h), algae

not determined

Microorganisms/Effect on activated sludge:

EC50 (0,5 h), bacteria

not determined

Chronic toxicity to fish:

No data available.

Chronic toxicity to aquatic invertebrates:

No data available.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

The product can be virtually eliminated from water by abiotic processes e.g. adsorption onto activated sludge.

Elimination information:

> 70 % DOC reduction (OECD 302B; ISO 9888; 88/302/EEC, Teil C) Easily eliminated from water.

Bioaccumulative potential

Bioaccumulation potential:

Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments:

Volatility: No data available.

Other adverse effects

The product does not contain substances that are listed in the Montreal Protocol on substances that deplete the ozone layer.

Additional information

Adsorbable organically-bound halogen (AOX):

No data available.

Other ecotoxicological advice:

Do not release untreated into natural waters. At the present state of knowledge, no negative ecological effects are expected.

Ecological data are determined by analogy.

13. Disposal Considerations

Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.
Do not discharge into drains/surface waters/groundwater.

A waste code in accordance with the European waste catalog (EWC) cannot be specified, due to dependence on the usage.
Observe national and local legal requirements.

14. Transport Information

Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Inland waterway transport

ADN

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None known

Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Air transport

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

15. Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Other Information

Any other intended applications should be discussed with the manufacturer.

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

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Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
Skin Irrit.	Skin irritation
Eye Dam.	Serious eye damage
STOT SE	Specific target organ toxicity — single exposure
H302	Harmful if swallowed.
H301	Toxic if swallowed.
H317	May cause an allergic skin reaction.
H314	Causes severe skin burns and eye damage.
H310 + H330	Fatal in contact with skin or if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H312	Harmful in contact with skin.
H335	May cause respiratory irritation.
H301 + H331	Toxic if swallowed or if inhaled.
EUH071	Corrosive to the respiratory tract.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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