

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 27.05.2021

Version number 3

Revision: 27.05.2021

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

- **1.1 Product identifier**
- **Trade name:** BlueZol
- **Article number:** 39808
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de
- **Information department:** Product Safety department Tel.: +49 6221 13840-35
- **1.4 Emergency telephone number:**
Medical Emergency Information in case of poisoning:
Poison Information Center Mainz - Phone: +49 (0) 6131 19240
(advisory service in German or English language)



SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



Acute Tox. 3 H301 Toxic if swallowed.
Acute Tox. 3 H311 Toxic in contact with skin.
Acute Tox. 3 H331 Toxic if inhaled.



Muta. 2 H341 Suspected of causing genetic defects.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Skin Corr. 1B H314 Causes severe skin burns and eye damage.



Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



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Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

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

· **Hazard pictograms** GHS05, GHS06, GHS08, GHS09· **Signal word** Danger**Hazard-determining components of labelling:**

phenol

2-Mercaptoethanol

guanidinium thiocyanate

sodium N-lauroylsarcosinate

Hazard statements

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

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

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

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

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

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

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

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

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

P314 Get medical advice/attention if you feel unwell.

Additional information:

EUH032 Contact with acids liberates very toxic gas.

2.3 Other hazards**Results of PBT and vPvB assessment**· **PBT:** PBT - assessment not available.· **vPvB:** vPvB - assessment not available.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures**· **Description:** Mixture of the substances listed below with harmless additions.**Dangerous components:**

CAS: 108-95-2 EINECS: 203-632-7	phenol ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Muta. 2, H341; STOT RE 2, H373; ⚠ Skin Corr. 1B, H314	30-50%
CAS: 593-84-0 EINECS: 209-812-1	guanidinium thiocyanate ⚠ Skin Corr. 1C, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Aquatic Chronic 3, H412	15-30%
CAS: 60-24-2 EINECS: 200-464-6	2-Mercaptoethanol ⚠ Acute Tox. 3, H301; Acute Tox. 2, H310; Acute Tox. 3, H331; ⚠ STOT RE 2, H373; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	0-10%
CAS: 137-16-6 EINECS: 205-281-5	sodium N-lauroylsarcosinate ⚠ Acute Tox. 2, H330; ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315	0-10%

Additional information

the product contains no further substances which shall be indicated according to REACH-Regulation (Regulation (EC) No. 1907/2006).

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For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information**
Remove contaminated clothing.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation** Supply fresh air or oxygen; call for doctor.
- **After skin contact**
Immediate wash with copious amounts of water and soap; rinse thoroughly; seek medical advice.
- **After eye contact**
Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist immediately.
- **After swallowing**
Wash out mouth instantly. Drink copious amounts of water and provide fresh air. Call for doctor immediately.
Do not induce vomiting!
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be formed, but not limited to:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NO_x)
Ammonia (NH₃)
Sulphur oxides (SO_x)
Hydrogen sulfide
Hydrogen cyanide (HCN)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Ensure adequate ventilation
Wear respiratory protection.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
See Section 7 for information on safe handling

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
Requirements to be met by storerooms and receptacles: Store at +2 to +8 °C
- **Information about storage in one common storage facility:**
Store away from oxidising agents.
Do not store together with acids.
- **Further information about storage conditions:** Keep receptacle tightly sealed and store in dry conditions.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

108-95-2 phenol (30-50%)

WEL	Short-term value: 16 mg/m ³ , 4 ppm
	Long-term value: 7.8 mg/m ³ , 2 ppm
Sk	

- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and feed.
Store protective clothing separately.
Immediately remove all soiled and contaminated clothing
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.
- **Breathing equipment:**
Short term filter device:
Filter P3.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Protective gloves.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Nitrile rubber, NBR
- **Eye protection:** Tightly sealed goggles.
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour:	Light yellow
Odour:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** no information available

· Change in condition

Melting point/freezing point:	no information available
Initial boiling point and boiling range:	no information available

· **Flash point:** no information available

· **Flammability (solid, gaseous)** Not applicable.

· **Ignition temperature:** no information available

· **Decomposition temperature:** no information available

· **Self igniting:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· Explosion limits:

Lower:	no information available
Upper:	no information available

· **Vapour pressure:** no information available

· **Density:** no information available

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· Solubility in / Miscibility with

Water: Fully miscible

· **Partition coefficient: n-octanol/water:** no information available

· Viscosity:

dynamic:	no information available
kinematic:	no information available

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No further relevant informations available.
- **10.4 Conditions to avoid**
exposure to the light
high temperatures
- **10.5 Incompatible materials:** Avoid contact with: acids, strong oxidizers
- **10.6 Hazardous decomposition products:** In case of fire: See Section 5

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Toxic if swallowed, in contact with skin or if inhaled.

- **LD/LC50 values that are relevant for classification:**

108-95-2 phenol

Oral	LD50	300 mg/kg (Maus) 317 mg/kg (rat)
Dermal	LD50	670 mg/kg (rat)
Inhalative	LC50/4h	316 mg/l (rat)

593-84-0 guanidinium thiocyanate

Oral	LD50	593 mg/kg (rat)
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60-24-2 2-Mercaptoethanol

Oral	LD50	133 mg/kg (rat)
Dermal	LD50	112-224 mg/kg (rabbit)
Inhalative	LC50/4h	2.1 mg/l (rat)
	LC50/96h	37 mg/l (trout)

137-16-6 sodium N-lauroylsarcosinate

Oral	LD50	2,900 mg/kg (rat)
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- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes severe skin burns and eye damage.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **Additional toxicological information:**
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity**
Suspected of causing genetic defects.
- **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**
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

60-24-2 2-Mercaptoethanol

EC50/48h 0.4 mg/l (*Daphnia magna*)EC50/72h 19 mg/l (*Scenedesmus subspicatus*)

137-16-6 sodium N-lauroylsarcosinate

EC50/48h 29.7 mg/l (*Daphnia magna*)

· 12.2 Persistence and degradability No further relevant information available.

· 12.3 Bioaccumulative potential No further relevant information available.

· 12.4 Mobility in soil No further relevant information available.

· Additional ecological information:

· General notes:

Do not allow product to reach ground water, water course or sewage system.

Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.

· 12.5 Results of PBT and vPvB assessment

· PBT: PBT - assessment not available.

· vPvB: vPvB - assessment not available.

· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Disposal must be made according to official regulations.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packagings:

· Recommendation:

Disposal of uncleaned packagings must be made according to official regulations in the same manner as the product.

· Recommended cleansing agent: Water, if necessary with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, IMDG, IATA

UN2810

· 14.2 UN proper shipping name

· ADR

2810 TOXIC LIQUID, ORGANIC, N.O.S. (PHENOL, THIOGLYCOL), ENVIRONMENTALLY HAZARDOUS TOXIC LIQUID, ORGANIC, N.O.S. (PHENOL, THIOGLYCOL), MARINE POLLUTANT

· IMDG

· IATA

TOXIC LIQUID, ORGANIC, N.O.S. (PHENOL, THIOGLYCOL)

· 14.3 Transport hazard class(es)

· ADR, IMDG



· Class

6.1 Toxic substances.

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· Label	6.1
· IATA	
	
· Class	6.1 Toxic substances.
· Label	6.1
· 14.4 Packing group	
· ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	Product contains environmentally hazardous substances: 2-Mercaptoethanol
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Toxic substances.
· Hazard identification number (Kemler code):	60
· EMS Number:	F-A,S-A
· Stowage Category	E
· Stowage Code	SW1 Protected from sources of heat. SW2 Clear of living quarters.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (PHENOL, THIOGLYCOL), 6.1, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
H2 ACUTE TOXIC
E2 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

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· **National regulations**· **Technical instructions (air):**

Class	Share in %
I	40-70

· **Water hazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H310 Fatal in contact with skin.

H311 Toxic in contact with skin.

H312 Harmful 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.

H330 Fatal if inhaled.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H341 Suspected of causing genetic defects.

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

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

· **Department issuing SDS:** Product safety department· **Contact:** +49 6221 13840-35· **Abbreviations and acronyms:**

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

ADR: Accord relatif au transport international 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 Harmonised 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 (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 2: Acute toxicity – Category 2

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

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Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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