

SeramunBlau® slow2 50

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

1.1. Product identifier

Product name: SeramunBlau® slow2 50
Article number: S-150-TMB
REACH Registration Number: not applicable

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

Use of the substance/mixture

For research use and further manufacturing.
Restricted to professional users.

1.3. Details of the supplier of the safety data sheet

Company name: Seramun Diagnostica GmbH
Street: Spreenhagener Str. 1
Place: D-15754 Heidesee
Telephone: +49 33767 791-10
e-mail: quality@seramun.com

1.4. Emergency telephone number: +49 33767 791-10 from 9:00 am to 3:00 pm CET, excluding weekends and public holidays

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

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

2.2. Label elements

Regulation (EC) No 1272/2008

Special labelling of certain mixtures

EUH210 Safety data sheet available on request.

Labelling of packages where the contents do not exceed 125 ml

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
616-45-5	2-Pyrrolidone			1 - < 3 %
	210-483-1		01-2119475471-37	
	Repr. 1B, Eye Irrit. 2; H360 H319			

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

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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	
616-45-5	210-483-1	2-Pyrrolidone	1 - < 3 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg Repr. 1B; H360: >= 3 - 100	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

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

After inhalation

Provide fresh air.

After contact with skin

Wash with plenty of water.

After contact with eyes

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

After ingestion

Rinse mouth thoroughly with 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

Foam
Dry extinguishing powder
Carbon dioxide (CO₂)

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated:
Carbon dioxide (CO₂)
Carbon monoxide
Nitrogen oxides (NO_x)

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Use personal protection equipment.

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

Use personal protective equipment as required.

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6.2. Environmental precautions

No special environmental measures are necessary.

6.3. Methods and material for containment and cleaning up

For containment

Take up mechanically.

For cleaning up

Wipe up with absorbent material (eg. cloth, fleece).

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

Observe instructions for use.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

When using do not eat, drink, smoke, sniff.

Wash hands before breaks and after work.

Take off contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Keep cool. Protect from sunlight.

Keep/Store only in original container.

Never return spills in original containers for re-use.

Hints on joint storage

Keep away from: Food and feedingstuffs

Further information on storage conditions

storage temperature of 2 °C - 8 °C.

7.3. Specific end use(s)

For research use and further manufacturing.

Restricted to professional users.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Name of agent		
DNEL type	Exposure route	Effect	Value
616-45-5	2-Pyrrolidone		
Worker DNEL, long-term	inhalation	systemic	29.62 mg/m ³
Worker DNEL, long-term	dermal	systemic	4.2 mg/kg bw/day

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PNEC values

CAS No	Name of agent	
	Environmental compartment	Value
616-45-5	2-Pyrrolidone	
	Freshwater	0.5 mg/l
	Marine water	0.05 mg/l
	Freshwater sediment	0.4205 mg/kg
	Micro-organisms in sewage treatment plants (STP)	10 mg/l
	Soil	0.0612 mg/kg

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Individual protection measures, such as personal protective equipment

Eye/face protection

Eye protection: not required.

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.

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material ≥ 0.1 mm

Breakthrough time: > 480 min

Take recovery periods for skin regeneration.

Skin protection

Use of protective clothing

Respiratory protection

Usually no personal respirative protection necessary.

Thermal hazards

No special handling advices are necessary.

Environmental exposure controls

No special environmental measures are necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless-pale yellow
Odour:	characteristic

Test method

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	100 °C Calculation method.
Flash point:	120 °C Calculated flash point.

Flammability

Solid/liquid:	not determined
Gas:	not applicable

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Explosive properties

The product is not: Explosive.

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 20 °C):	3.5-4.0 Experimental data
Water solubility: (at 20 °C)	completely miscible

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not applicable
Vapour pressure:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	1.0109 g/cm ³ Experimental data
Relative vapour density:	not determined
Particle characteristics:	not applicable

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties

The product is not: oxidising.

Other safety characteristics

Solid content: not applicable

Further Information

No known hazardous decomposition products.

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

Keep away from heat.

Protect from sunlight.

10.5. Incompatible materials

metals

Oxidising agent

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.

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
616-45-5	2-Pyrrolidone				
	oral	LD50 >2000 mg/kg	Rat	European Chemicals Agency	OECD 401
	dermal	LD50 >2000 mg/kg	Rabbit	European Chemicals Agency	

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.

Information on likely routes of exposure

Dimethylsulfoxide (DMSO) H: skin resorptive

Additional information on tests

There are no data available on the preparation/mixture itself.

11.2. Information on other hazards

Endocrine disrupting properties

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

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.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
616-45-5	2-Pyrrolidone					
	Acute fish toxicity	LC50 10000 mg/l	96 h	Danio rerio (zebrafish)	European Chemicals Agency	OECD 203
	Acute algae toxicity	ErC50 >500 mg/l	72 h	Desmodesmus subspicatus	European Chemicals Agency	
	Acute crustacea toxicity	EC50 >500 mg/l	48 h	Daphnia magna (Big water flea)	European Chemicals Agency	

12.2. Persistence and degradability

The single components are biodegradable.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
616-45-5	2-Pyrrolidone	-0,71

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 REACH, annex XIII.

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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

List of Wastes Code - used product

160509 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

List of Wastes Code - contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging

Non-contaminated packages may 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.
- 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)

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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.

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 75

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

National regulatory information

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): 1,2,3,4,5,6,7,8,9,10,11,12,13,15.

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)

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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>

Relevant H and EUH statements (number and full text)

H319 Causes serious eye irritation.

H360 May damage fertility or the unborn child.

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