## Bromthymolblau-Lösung $4 \mathrm{~g} / \mathrm{mit}$ Spuren Natronlauge und Ethanol 19,2 Vol.-\%

Revision date: 13.04.2022
Product code: 30808

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

### 1.1. Product identifier

Bromthymolblau-Lösung 4 g/l mit Spuren Natronlauge und Ethanol 19,2 Vol.-\%
1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture
Laboratory chemical
Industrial uses: Uses of substances as such or in preparations at industrial sites
Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Uses advised against
Do not use for private purposes (household).
1.3. Details of the supplier of the safety data sheet

Company name:
Street:
Place:
Telephone:
e-mail:
Contact person:
e-mail:
Internet:
Responsible Department:
1.4. Emergency telephone number:

Fa. Bernd Kraft GmbH
Stempelstraße 6
D-47167 Duisburg
0203/5194-0
info@berndkraft.de
Abteilung Produktsicherheit
produktsicherheit@berndkraft.de
www.berndkraft.de
Abteilung Produktsicherheit
For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

## Further Information

This product is a mixture. REACH Registration Number see section 3.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008
Flam. Liq. 3; H226
Full text of hazard statements: see SECTION 16.


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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.
2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Hazardous components

| CAS No | Chemical name | REACH No | Quantity |  |
| :--- | :--- | :--- | :--- | :---: |
|  | EC No | Index No |  |  |
|  | Classification (Regulation (EC) No 1272/2008) |  |  |  |
| $64-17-5$ | ethanol | $603-002-00-5$ | $01-2119457610-43$ | $15-<20 \%$ |
|  | $200-578-6$ |  |  |  |
|  | Flam. Liq. 2, Eye Irrit. 2; H225 H319 |  |  |  |

Full text of H and EUH statements: see section 16.
Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name |  |
| :--- | :--- | :--- | :---: |
|  | Specific Conc. Limits, M-factors and ATE | Quantity |  |
| $64-17-5$ | $200-578-6$ | ethanol |  |
|  | inhalation: $L C 50=124,7 \mathrm{mg} / \mathrm{I}$ (vapours); oral: LD50 $=10470 \mathrm{mg} / \mathrm{kg}$ Eye Irrit. 2; H319: >=50- <br> 100 | $15-<20 \%$ |  |

Further Information
This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of $=0.1 \%(\mathrm{w} / \mathrm{w})$.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

## General information

No data available
After inhalation
Provide fresh air.
After contact with skin
Wash immediately with: Water
Take off immediately all contaminated clothing and wash it before reuse.

## After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

## After ingestion

Rinse mouth immediately and drink plenty of water.
Call a doctor if you feel unwell.

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

Irritant
Gastrointestinal complaints
Vomiting
4.3. Indication of any immediate medical attention and special treatment needed No data available

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media
Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.
Unsuitable extinguishing media no restriction
5.2. Special hazards arising from the substance or mixture

Combustible liquid.
In case of warming:
Vapours are heavier than air, spread along floors and form explosive mixtures with air.
Hazardous combustion products
In case of fire may be liberated: Carbon dioxide (CO2), Carbon monoxide

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.
Use water spray jet to protect personnel and to cool endangered containers.

## 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

Keep away from sources of ignition - No smoking.
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).
Take action to prevent static discharges.

## For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Do not breathe dust/fume/gas/mist/vapours/spray.

## For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.
The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.
Danger of explosion
6.3. Methods and material for containment and cleaning up

For containment
Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Collect in closed and suitable containers for disposal.
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

## For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

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## Other information

Provide adequate ventilation.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

### 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

Read label before use.
Handle and open container with care.
When using do not eat, drink, smoke, sniff.
Keep container tightly closed.
Use personal protection equipment.
Do not breathe vapour/aerosol.
Provide adequate ventilation.

## Advice on protection against fire and explosion

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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 or drink.

## Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary.

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

Requirements for storage rooms and vessels
Keep container tightly closed. 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: Oxidising agent. Pyrophoric or self-heating substances.
Further information on storage conditions
Vapours may form explosive mixtures with air.
Keep cool. Protect from sunlight.

### 7.3. Specific end use(s)

Laboratory use
Laboratory chemical

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | $\mathrm{mg} / \mathrm{m}^{3}$ | $\mathrm{fib} / \mathrm{cm}^{3}$ | Category | Origin |
| :--- | :--- | ---: | ---: | ---: | :---: | :---: |
| $64-17-5$ | Ethyl alcohol | 1000 | - |  | STEL (15 min) |  |

DNEL/DMEL values

| CAS No | Substance |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| DNEL type | ethanol | Exposure route | Effect | Value |
| $64-17-5$ | inhalation | systemic | $950 \mathrm{mg} / \mathrm{m}^{3}$ |  |
| Worker DNEL, long-term | dermal | systemic | $343 \mathrm{mg} / \mathrm{kg} \mathrm{bw} / \mathrm{day}$ |  |
| Worker DNEL, long-term | inhalation | systemic | $114 \mathrm{mg} / \mathrm{m}^{3}$ |  |
| Consumer DNEL, long-term | dermal | systemic | $206 \mathrm{mg} / \mathrm{kg} \mathrm{bw} / \mathrm{day}$ |  |
| Consumer DNEL, long-term | oral | systemic | $87 \mathrm{mg} / \mathrm{kg} \mathrm{bw} / \mathrm{day}$ |  |
| Consumer DNEL, long-term |  |  |  |  |

PNEC values

| CAS No | Substance |  |
| :--- | :--- | :--- |
| Environmental compartment | ethanol | Value |
| $64-17-5$ | $0,96 \mathrm{mg} / \mathrm{l}$ |  |
| Freshwater |  |  |
| Freshwater (intermittent releases) | $2,75 \mathrm{mg} / \mathrm{l}$ |  |
| Marine water | $0,79 \mathrm{mg} / \mathrm{l}$ |  |
| Freshwater sediment | $3,6 \mathrm{mg} / \mathrm{kg}$ |  |
| Marine sediment | $2,9 \mathrm{mg} / \mathrm{kg}$ |  |
| Secondary poisoning | $380 \mathrm{mg} / \mathrm{kg}$ |  |
| Micro-organisms in sewage treatment plants (STP) | $580 \mathrm{mg} / \mathrm{l}$ |  |
| Soil | $0,63 \mathrm{mg} / \mathrm{kg}$ |  |

### 8.2. Exposure controls

## Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Individual protection measures, such as personal protective equipment
Eye/face protection
Suitable eye protection: goggles.
Hand protection
Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact
Trade name/designation: KCL 897 Butoject®
Suitable material: Butyl caoutchouc (butyl rubber) $0,3 \mathrm{~mm}$
Wearing time with permanent contact: > 480 min
By short-term hand contact
Trade name/designation: KCL 720 Camapren®
Suitable material: CR (polychloroprene, chloroprene rubber) $0,65 \mathrm{~mm}$
Wearing time with occasional contact (splashes): > 60 min

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The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

## Skin protection

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

## Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

## Environmental exposure controls

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.
Danger of explosion

## SECTION 9: Physical and chemical properties

| 9.1. Information on basic physical and chemical properties |  |
| :--- | :--- |
| Physical state: | Liquid |
| Colour: | blue |
| Odour: | like: Ethanol |
| Odour threshold: | No data available |

## Changes in the physical state

Melting point/freezing point:
Boiling point or initial boiling point and
boiling range:
Sublimation point: No data available
Softening point:
Pour point:
No data available:
Flash point:

## Flammability

| Solid/liquid: | not applicable |
| :--- | :--- |
| Gas: | not applicable |

## Explosive properties

Vapours can form explosive mixtures with air.
Lower explosion limits: No data available
Upper explosion limits:
Auto-ignition temperature:

## Self-ignition temperature

Solid: not applicable

Gas:
Decomposition temperature:
pH -Value:
Viscosity / dynamic:

Flow time:
Water solubility:

No data available
No data available

No data available
No data available
No data available
No data available

No data available
No data available
$\sim 40^{\circ} \mathrm{C}$
not applicable
not applicable
not applicable
No data available
neutral
No data available

No data available

## Bromthymolblau-Lösung 4 g/l mit Spuren Natronlauge und Ethanol 19,2 Vol.-\%

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| Solubility in other solvents |  |
| :--- | ---: |
| not determined | No data available |
| Dissolution rate: | No data available |
| Partition coefficient n-octanol/water: | No data available |
| Dispersion stability: | No data available |
| Vapour pressure: | No data available |
| Vapour pressure: | $0,97591 \mathrm{~g} / \mathrm{cm}^{3}$ |
| Density: | No data available |
| Relative density: | No data available |
| Bulk density: | No data available |
| Relative vapour density: | No data available |

### 9.2. Other information

Information with regard to physical hazard classes
Sustaining combustion:
Sustaining combustion
Oxidizing properties
Not oxidising.
Other safety characteristics
Solvent separation test: No data available
Solvent content: No data available
Solid content:
No data available
Evaporation rate:
No data available

## Further Information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Vapours can form explosive mixtures with air.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.
10.3. Possibility of hazardous reactions

Oxidising agent

### 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

Rubber articles
Plastic articles

### 10.6. Hazardous decomposition products

Hazardous combustion products
In case of fire may be liberated: Carbon dioxide (CO2), Carbon monoxide

## Further information

No data available

## SECTION 11: Toxicological information

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

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Toxicocinetics, metabolism and distribution
There are no data available on the mixture itself.

## Acute toxicity

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

| CAS No | Chemical name |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Exposure route | Dose |  | Species | Source | Method |
| 64-17-5 | ethanol |  |  |  |  |  |
|  | oral | $\begin{aligned} & \mathrm{LD} 50 \\ & \mathrm{mg} / \mathrm{kg} \end{aligned}$ | 10470 | Rat | Study report (1976) | OECD Guideline 401 |
|  | inhalation (4 h) vapour | $\begin{aligned} & \mathrm{LC} 50 \\ & \mathrm{mg} / \mathrm{I} \end{aligned}$ | 124,7 | Rat | Study report (1980) | OECD Guideline 403 |

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.
Specific effects in experiment on an animal
There are no data available on the mixture itself.
Additional information on tests
There are no data available on the mixture itself.

## Practical experience

There are no data available on the mixture itself.

### 11.2. Information on other hazards

Other information
Irritant
Gastrointestinal complaints
Vomiting

## Further information

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

## SECTION 12: Ecological information

### 12.1. Toxicity

There are no data available on the mixture itself.

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| CAS No | Chemical name |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Aquatic toxicity | Dose | [h] \| [d] | Species | Source | Method |
| 64-17-5 | ethanol |  |  |  |  |  |
|  | Acute fish toxicity | LC50 15400 <br> $\mathrm{mg} / \mathrm{l}$  | 96 h | Lepomis macrochirus | Bulletin of Environmental Contamination | other: EPA-660/3-75-00 9,1975 |
|  | Acute algae toxicity | $\begin{aligned} & \text { ErC50 ca. } \\ & 22000 \mathrm{mg} / \mathrm{l} \end{aligned}$ | 96 h | Pseudokirchneriella subcapitata | Ecotoxicology and Environmental Safety 7 | OECD Guideline 201 |
|  | Acute crustacea toxicity | $\begin{array}{ll} \hline \text { EC50 } & >10000 \\ \mathrm{mg} / \mathrm{l} & \end{array}$ | 48 h | Daphnia magna | Water Research 23(4): 495-499 (1989) | other: DIN 38412 <br> Teil 11 |
|  | Algae toxicity | NOEC 5400 <br> $\mathrm{mg} / \mathrm{l}$  | 5 d | Skeletonema costatum | Environ Toxicol Chem $\begin{aligned} & 8(5): 451-455 . \\ & (1989 \end{aligned}$ | Study to determine the sensitivity of a |
|  | Crustacea toxicity | NOEC $2 \mathrm{mg} / \mathrm{l}$ | 10 d | Ceriodaphnia dubia | Arch Environ Contam Toxicol 20(2):211-21 | Follows the basic methodology for the th |

### 12.2. Persistence and degradability

There are no data available on the mixture itself.

### 12.3. Bioaccumulative potential

There are no data available on the mixture itself.
Partition coefficient n -octanol/water

| CAS No | Chemical name | Log Pow |
| :--- | :--- | :---: |
| $64-17-5$ | ethanol | $-0,77$ |

BCF

| CAS No | Chemical name | BCF | Species | Source |
| :--- | :--- | :---: | :--- | :--- |
| $64-17-5$ | ethanol | 1 | Cyprinus carpio | Comparative Biochemi |

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and $v$ PvB 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

Do not empty into drains.
Further information
Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

## Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Send to a physico-chemical treatment facility under observation of official regulations.
Do not allow to enter into surface water or drains.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

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## Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.
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:
14.3. Transport hazard class(es):
14.4. Packing group:

Inland waterways transport (ADN)
14.1. UN number or ID number:
14.2. UN proper shipping name:
14.3. Transport hazard class(es):
14.4. Packing group:

Marine transport (IMDG)
14.1. UN number or ID number:
14.2. UN proper shipping name:
14.3. Transport hazard class(es):
14.4. Packing group:

Air transport (ICAO-TI/IATA-DGR)
14.1. UN number or ID number:
14.2. UN proper shipping name:
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. No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation.

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No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation.

### 14.5. Environmental hazards

14.7. Maritime transport in bulk according to IMO instruments 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 3, Entry 40, Entry 75
Information according to 2012/18/EU
(SEVESO III):
National regulatory information
Employment restrictions:
Water hazard class (D):

P5c FLAMMABLE LIQUIDS

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
1 - slightly hazardous to water

## SECTION 16: Other information

## Changes

This data sheet contains changes from the previous version in section(s): 9,12,13,15.

## 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)

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

| Classification | Classification procedure |
| :--- | :--- |
| Flam. Liq. 3; H226 | On basis of test data |

Relevant H and EUH statements (number and full text)
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.

## Further Information

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 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.)

