

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Azure methylene blue, Klinger**

Print date: 12.06.2015

Product code: 2C-118

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Azure methylene blue, Klinger

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

Use as laboratory reagent

1.3. Details of the supplier of the safety data sheet

Company name: Waldeck GmbH & Co KG
Division Chroma
Street: Havixbecker Str. 62
Place: D-48161 Münster
Post-office box: 410180
D-48065 Münster
Telephone: +49(0)180/2247662 Telefax: +49(0)180/1247662
Responsible Department: Labor
Mo. – Do.: 08.00 – 17.00 Uhr, Fr.: 08.00 – 15.00 Uhr

1.4. Emergency telephone number:

+49(0)180/2247662

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: F - Highly flammable, T - Toxic

R phrases:

Highly flammable.

Toxic by inhalation, in contact with skin and if swallowed.

Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Flammable liquid: Flam. Liq. 2

Acute toxicity: Acute Tox. 3

Acute toxicity: Acute Tox. 3

Acute toxicity: Acute Tox. 3

Specific target organ toxicity - single exposure: STOT SE 1

Hazard Statements:

Highly flammable liquid and vapour.

Toxic if swallowed, in contact with skin or if inhaled.

Causes damage to organs.

2.2. Label elements**Hazardous components which must be listed on the label**

methanol

Signal word: Danger

Pictograms: GHS02-GHS06-GHS08



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Hazard statements

- H225 Highly flammable liquid and vapour.
 H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.
 H370 Causes damage to organs.

Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P235 Keep cool.
 P270 Do not eat, drink or smoke when using this product.
 P370+P378 In case of fire: Use In case of fire, use sand, earth, powder or foam. to extinguish.
 P405 Store locked up.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
200-659-6	methanol	
67-56-1	F - Highly flammable, T - Toxic R11-23/24/25-39/23/24/25	60 - < 65 %
	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H301 H311 H331 H370	
200-515-2	Methylene blue	< 1 %
122965-43-9		
	Acute Tox. 4; H302	
241-409-6	Eosin Y	< 1 %
17372-87-1		
	Eye Irrit. 2; H319	

Full text of R, H and EUH phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No

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mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Call a physician immediately.

After contact with eyes

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Call a physician immediately.

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**

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. 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**

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

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**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.



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Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

7.3. Specific end use(s)

Use as laboratory reagent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

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.

Eye/face protection

Wear eye/face protection.

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.

Skin protection

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

Respiratory protection

In case of inadequate ventilation wear respiratory protection.



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	blue
Odour:	characteristic

Test method

pH-Value (at 20 °C):	6,6
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Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	65 °C
Flash point:	9 °C

Flammability

Solid:	not applicable
Gas:	not applicable

Lower explosion limits:	6 vol. %
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Upper explosion limits:	50 vol. %
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Ignition temperature:	440 °C
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Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not determined
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Oxidizing properties

Not oxidizing.

Vapour pressure: (at 20 °C)	129 hPa
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Vapour pressure: (at 50 °C)	552 hPa
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Density (at 20 °C):	0,972 g/cm³
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Water solubility:	easily soluble
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Solubility in other solvents

not determined

Partition coefficient:	not determined
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Vapour density:	not determined
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Evaporation rate:	not determined
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Solvent content:	60,00 %
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9.2. Other information

Solid content:	not determined
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SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable, Ignition hazard.

10.2. Chemical stability



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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 sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Toxic if swallowed, in contact with skin or if inhaled.

ATEmix calculated

ATE (oral) 166,6 mg/kg; ATE (dermal) 500,0 mg/kg; ATE (inhalative vapour) 5,00 mg/l; ATE (inhalative aerosol) 0,833 mg/l

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
67-56-1	methanol				
	oral	LD50	5630 mg/kg	Rat	
	dermal	LD50	15800 mg/kg	Rabbit	
	inhalative vapour	ATE	3 mg/l		
	inhalative aerosol	ATE	0,5 mg/l		
122965-43-9	Methylene blue				
	oral	ATE	500 mg/kg		
17372-87-1	Eosin Y				
	oral	LD50	2000 mg/kg	Rat	

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.

STOT-single exposure

Causes damage to organs. (methanol)

Severe effects after repeated or prolonged exposure

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.

Aspiration hazard

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

Additional information on tests

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]. Special hazards arising from the substance or mixture!



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SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
122965-43-9	Methylene blue					
	Acute fish toxicity	LC50	45 mg/l	96 h	Pimephales promelas (fathead minnow)	
	Acute crustacea toxicity	EC50	2,26 mg/l	48 h	Daphnia magna (Big water flea)	

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
122965-43-9	Methylene blue	5,86
17372-87-1	Eosin Y	4,8

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1230
14.2. UN proper shipping name:	METHANOL
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3+6.1



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Classification code: FT1
 Special Provisions: 279
 Limited quantity: 1 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 336
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1230
14.2. UN proper shipping name: METHANOL
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+6.1



Classification code: FT1
 Special Provisions: 279 802
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1230
14.2. UN proper shipping name: METHANOL
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+6.1



Special Provisions: 279
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-E, S-D

Air transport (ICAO)

14.1. UN number: UN 1230
14.2. UN proper shipping name: METHANOL
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+6.1



Special Provisions: A104 A113



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Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	352
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

14.6. Special precautions for user

Warning: Combustible liquid. Toxic.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC):	60 % (583,2 g/l)
2004/42/EC (VOC):	60 % (583,2 g/l)

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

National regulatory information

Employment restrictions:	Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.
Water contaminating class (D):	2 - water contaminating
Skin resorption/Sensitization:	Permeates easily through outer skin and causes poisoning.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

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)
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%

Relevant R-phrases (Number and full text)

11	Highly flammable.
23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Relevant H- and EUH-phrases (Number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H302	Harmful if swallowed.

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H311	Toxic in contact with skin.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H370	Causes damage to organs.

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