

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

1 Identification

- **Product identifier**
- **Trade name:** Thymol Blue 0.04%
w/v in Methanol
- **Article number:** SO-097
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

STOT SE 1 H370 Causes damage to organs.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Methanol (Methyl Alcohol)
- **Hazard statements**
Highly flammable liquid and vapor.
Harmful if swallowed.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

Trade name: Thymol Blue 0.04%
w/v in Methanol

(Contd. of page 1)

Causes damage to organs.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

Rinse mouth.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

| | | |
|--------------|---------------------------|---------|
| CAS: 67-56-1 | Methanol (Methyl Alcohol) | 99.495% |
|--------------|---------------------------|---------|

· **Table of Nonhazardous Ingredients**

| | | |
|--------------|-------------|---------|
| CAS: 76-61-9 | Thymol Blue | 0.5049% |
|--------------|-------------|---------|

US

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

Trade name: Thymol Blue 0.04%
w/v in Methanol

(Contd. of page 2)

4 First-aid measures

- **Description of first aid measures**
- **General information:**
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; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:

| | | |
|--------------|---------------------------|----------------------|
| CAS: 67-56-1 | Methanol (Methyl Alcohol) | 530 ppm |
| CAS: 76-61-9 | Thymol Blue | 30 mg/m ³ |

· PAC-2:

| | | |
|--------------|---------------------------|-----------------------|
| CAS: 67-56-1 | Methanol (Methyl Alcohol) | 2,100 ppm |
| CAS: 76-61-9 | Thymol Blue | 330 mg/m ³ |

· PAC-3:

| | | |
|--------------|---------------------------|-----------|
| CAS: 67-56-1 | Methanol (Methyl Alcohol) | 7200* ppm |
|--------------|---------------------------|-----------|

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

Trade name: Thymol Blue 0.04%
w/v in Methanol

CAS: 76-61-9 Thymol Blue

(Contd. of page 3)

2,000 mg/m³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
 Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 Keep receptacle tightly sealed.
 Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

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

CAS: 67-56-1 Methanol (Methyl Alcohol)

| | |
|-----|---|
| PEL | Long-term value: 260 mg/m ³ , 200 ppm |
| REL | Short-term value: 325 mg/m ³ , 250 ppm |
| | Long-term value: 260 mg/m ³ , 200 ppm |
| | Skin |
| TLV | Short-term value: 328 mg/m ³ , 250 ppm |
| | Long-term value: 262 mg/m ³ , 200 ppm |
| | Skin; BEI |

- **Ingredients with biological limit values:**

CAS: 67-56-1 Methanol (Methyl Alcohol)

| | |
|-----|--|
| BEI | 15 mg/L |
| | LD50 Intraperitoneal: urine |
| | Time: end of shift |
| | LD50: Methanol (background, nonspecific) |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

Trade name: Thymol Blue 0.04%
w/v in Methanol

(Contd. of page 4)

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. 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.

· **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.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

| | |
|-----------------|-----------------|
| Form: | Liquid |
| Color: | Orange |
| Odor: | Methanol |
| Odor threshold: | Not determined. |

· **pH-value:** Not determined.

· **Change in condition**

| | |
|------------------------------|--------------------|
| Melting point/Melting range: | -97.8 °C (-144 °F) |
| Boiling point/Boiling range: | 64 °C (147.2 °F) |

· **Flash point:** 11 °C (51.8 °F)

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

· **Ignition temperature:** 455 °C (851 °F)

· **Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

| | |
|--------|-----------|
| Lower: | 5.5 Vol % |
| Upper: | 44 Vol % |

· **Vapor pressure at 20 °C (68 °F):** 128 hPa (96 mm Hg)

· **Density at 20 °C (68 °F):** 0.79227 g/cm³ (6.61149 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

Trade name: Thymol Blue 0.04%
w/v in Methanol

(Contd. of page 5)

- | | |
|---|--|
| · Solubility in / Miscibility with Water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 99.5 % |
| VOC content: | 99.50 % |
| | 788.3 g/l / 6.58 lb/gl |
| · Solids content: | 0.0 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

ATE (Acute Toxicity Estimate)

| | | |
|------------|----------|-------------------------|
| Oral | LD50 | 1,193-2,783 mg/kg (rat) |
| Inhalative | LC50/4 h | 129 mg/l (rat) |

CAS: 67-56-1 Methanol (Methyl Alcohol)

| | | |
|------------|----------|-----------------|
| Oral | LD50 | 100 mg/kg (ATE) |
| Dermal | LD50 | 300 mg/kg (ATE) |
| Inhalative | LC50/4 h | 3 mg/l (ATE) |

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

Trade name: Thymol Blue 0.04%
w/v in Methanol

(Contd. of page 6)

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

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

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**

· **DOT, IMDG, IATA**

UN1993

· **UN proper shipping name**

· **DOT**

· **IMDG, IATA**

Flammable liquids, n.o.s. (Methanol)

FLAMMABLE LIQUID, N.O.S. (METHANOL)

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

Trade name: Thymol Blue 0.04%
w/v in Methanol

(Contd. of page 7)

· **Transport hazard class(es)**· **DOT**· **Class** 3 Flammable liquids· **Label** 3· **IMDG, IATA**· **Class** 3 Flammable liquids· **Label** 3· **Packing group**· **DOT, IMDG, IATA** II· **Environmental hazards:**· **Marine pollutant:** No· **Special precautions for user**

Warning: Flammable liquids

· **Danger code (Kemler):**

336

· **EMS Number:**

F-E, S-E

· **Stowage Category**

B

· **Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **DOT**· **Quantity limitations**

On passenger aircraft/rail: 1 L

On cargo aircraft only: 60 L

· **IMDG**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1993 FLAMMABLE LIQUIDS, N.O.S. (METHANOL), 3, II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

Trade name: Thymol Blue 0.04%
w/v in Methanol

(Contd. of page 8)

· **Section 313 (Specific toxic chemical listings):**

CAS: 67-56-1 | Methanol (Methyl Alcohol)

· **TSCA (Toxic Substances Control Act):**

Methanol (Methyl Alcohol)

Thymol Blue

· **TSCA new (21st Century Act) (Substances not listed)**

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

CAS: 67-56-1 | Methanol (Methyl Alcohol)

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

Methanol (Methyl Alcohol)

· **Hazard statements**

Highly flammable liquid and vapor.

Harmful if swallowed.

Causes damage to organs.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 12/29/2017

Reviewed on 12/29/2017

Trade name: Thymol Blue 0.04%
w/v in Methanol

(Contd. of page 9)

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

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Specific treatment (see on this label).

Rinse mouth.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

· **Department issuing SDS:** Environment protection department.

· **Contact:**

· **Date of preparation / last revision**

12-29-2017: review SDS for accuracy. STN

Revision 0.0, 02-26-2015; Creation date for SDS. STN

12/29/2017 / -

· **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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1