

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/31/2024

Reviewed on 05/31/2024

## 1 Identification

- **Product identifier**
- **Trade name:** Guaiacol 0.5% w/v  
in Reagent Alcohol
- **Article number:** SPX351
- **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 [shermann@aquasolutions.org](mailto:shermann@aquasolutions.org)  
Technical Coordinator  
Sherman Nelson [shermann@aquasolutions.org](mailto:shermann@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

Flammable Liquids 2

H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Specific Target Organ Toxicity - Single Exposure 2 H371 May cause damage to the central nervous system and the visual organs.

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



GHS02



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Methanol
- **Hazard statements**  
Highly flammable liquid and vapor.  
May cause damage to the central nervous system and the visual organs.
- **Precautionary statements**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep container tightly closed.

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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 on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF exposed or concerned: Call a poison center/doctor.  
In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
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)**



· **HMIS-ratings (scale 0 - 4)**



· **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: 64-17-5 | Ethyl Alcohol, Absolute 200 Proof | 89.442% |
| CAS: 67-56-1 | Methanol                          | 4.984%  |
| CAS: 67-63-0 | Isopropanol                       | 4.942%  |

· **Table of Nonhazardous Ingredients**

|              |          |        |
|--------------|----------|--------|
| CAS: 90-05-1 | guaiacol | 0.632% |
|--------------|----------|--------|

## 4 First-aid measures

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

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- **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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
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 section 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: 64-17-5 | Ethyl Alcohol, Absolute 200 Proof | 1,800 ppm |
| CAS: 67-56-1 | Methanol                          | 530 ppm   |
| CAS: 67-63-0 | Isopropanol                       | 400 ppm   |

### · PAC-2:

|              |                                   |           |
|--------------|-----------------------------------|-----------|
| CAS: 64-17-5 | Ethyl Alcohol, Absolute 200 Proof | 3300* ppm |
| CAS: 67-56-1 | Methanol                          | 2,100 ppm |
| CAS: 67-63-0 | Isopropanol                       | 2000* ppm |

### · PAC-3:

|              |                                   |             |
|--------------|-----------------------------------|-------------|
| CAS: 64-17-5 | Ethyl Alcohol, Absolute 200 Proof | 15000* ppm  |
| CAS: 67-56-1 | Methanol                          | 7200* ppm   |
| CAS: 67-63-0 | Isopropanol                       | 12000** ppm |

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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Keep respiratory protective device available.
- **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 section 7.
- **Control parameters**

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

### CAS: 64-17-5 Ethyl Alcohol, Absolute 200 Proof

|     |  |
|-----|--|
| PEL | Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm |
| REL | Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm |
| TLV | Short-term value: 1000 ppm                         |
| A3  |  |

### CAS: 67-56-1 Methanol

|     |   |
|-----|---|
| PEL | Long-term value: 260 mg/m <sup>3</sup> , 200 ppm  |
| REL | Short-term value: 325 mg/m <sup>3</sup> , 250 ppm<br>Long-term value: 260 mg/m <sup>3</sup> , 200 ppm<br>Skin |
| TLV | Short-term value: 250 ppm<br>Long-term value: 200 ppm<br>Skin; BEI  |

### CAS: 67-63-0 Isopropanol

|     |  |
|-----|--|
| PEL | Long-term value: 980 mg/m <sup>3</sup> , 400 ppm   |
| REL | Short-term value: 1225 mg/m <sup>3</sup> , 500 ppm<br>Long-term value: 980 mg/m <sup>3</sup> , 400 ppm |
| TLV | Short-term value: 400 ppm<br>Long-term value: 200 ppm<br>BEI, A4                                       |

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· **Ingredients with biological limit values:**

**CAS: 67-56-1 Methanol**

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

**CAS: 67-63-0 Isopropanol**

BEI 40 mg/L  
LD50 Intraperitoneal: urine  
Time: end of shift at end of workweek  
LD50: Acetone (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.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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

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## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form: Liquid  
Color: Clear  
Odor: de l'alcool

Odor threshold: l  
Not determined.

pH-value: Not determined.

#### · Change in condition

Melting point/Melting range: Undetermined.  
Boiling point/Boiling range: 78 °C (172.4 °F)

Flash point: 13 °C (55.4 °F)

Flammability (solid, gaseous): Highly flammable.

Auto igniting: 425 °C (797 °F)

Decomposition temperature: Not determined.

Ignition temperature: Product is not selfigniting.

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

#### · Explosion limits:

Lower: 3.5 Vol %  
Upper: 19 Vol %

Vapor pressure at 20 °C (68 °F): 59 hPa (44.3 mm Hg)

Density at 20 °C (68 °F): 0.79138 g/cm<sup>3</sup> (6.60407 lbs/gal)

Relative density: Not determined.

Vapor density: Not determined.

Evaporation rate: Not determined.

#### · Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

#### · Viscosity:

Dynamic: Not determined.  
Kinematic: Not determined.

#### · Solvent content:

Organic solvents: 99.4 %  
VOC content: 99.37 %  
786.4 g/l / 6.56 lb/gal

Solids content: 90.1 %

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· **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    | 2,006 mg/kg |
| Dermal     | LD50    | 6,019 mg/kg |
| Inhalative | LC50/4h | 60.2 mg/l   |

- **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:
- **Carcinogenic categories**

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

|              |                                   |   |
|--------------|-----------------------------------|---|
| CAS: 64-17-5 | Ethyl Alcohol, Absolute 200 Proof | 1 |
| CAS: 67-63-0 | Isopropanol                       | 3 |

· **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.

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- **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.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- |   |   |
|---|---|
| · <b>UN-Number</b>  | UN1993  |
| · <b>DOT, IMDG, IATA</b>  |   |
| · <b>UN proper shipping name</b>  | Flammable liquids, n.o.s. (Ethanol, Methanol, Isopropanol ) |
| · <b>DOT</b>  |   |
| · <b>IMDG, IATA</b>   | FLAMMABLE LIQUID, N.O.S. (Ethanol, Methanol, Isopropanol )  |
| · <b>Transport hazard class(es)</b>   |   |
| · <b>DOT</b>  |   |
|  |   |
| · <b>Class</b>  | 3 Flammable liquids   |
| · <b>Label</b>  | 3   |
| · <b>IMDG, IATA</b>   |   |
|  |   |
| · <b>Class</b>  | 3 Flammable liquids   |
| · <b>Label</b>  | 3   |
| · <b>Packing group</b>  |   |
| · <b>DOT, IMDG, IATA</b>  | II  |

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|  |   |
|--|---|
| · <b>Environmental hazards:</b>  |   |
| · <b>Marine pollutant:</b>   | No  |
| · <b>Special precautions for user</b>  | Warning: Flammable liquids  |
| · <b>Hazard identification number (Kemler code):</b>                             | 33  |
| · <b>EMS Number:</b>   | F-E, S-E  |
| · <b>Stowage Category</b>  | B   |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.   |
| · <b>Transport/Additional information:</b>                                       |   |
| · <b>DOT</b>   |   |
| · <b>Quantity limitations</b>  | On passenger aircraft/rail: 5 L<br>On cargo aircraft only: 60 L   |
| · <b>IMDG</b>  |   |
| · <b>Limited quantities (LQ)</b>   | 1L  |
| · <b>Excepted quantities (EQ)</b>  | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · <b>UN "Model Regulation":</b>  | UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL, METHANOL, ISOPROPANOL), 3, II  |

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **Sara**

### · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

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

CAS: 67-56-1 Methanol

CAS: 67-63-0 Isopropanol

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

Ethyl Alcohol, Absolute 200 Proof

ACTIVE

Methanol

ACTIVE

Isopropanol

ACTIVE

guaiacol

ACTIVE

### · Hazardous Air Pollutants

CAS: 67-56-1 Methanol

### · 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.

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

None of the ingredients is listed.

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

CAS: 64-17-5 Ethyl Alcohol, Absolute 200 Proof

CAS: 67-56-1 Methanol

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

CAS: 64-17-5 Ethyl Alcohol, Absolute 200 Proof

A3

CAS: 67-63-0 Isopropanol

A4

· **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 GHS08

· **Signal word** Danger

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

Methanol

· **Hazard statements**

Highly flammable liquid and vapor.

May cause damage to the central nervous system and the visual 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 on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF exposed or concerned: Call a poison center/doctor.

In case of fire: Use CO2, powder or water spray to extinguish.

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.

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## 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:*

· **Date of preparation / last revision**

*Revision 1.2, 05/31/2024: Reviewed SDS for accuracy. MH/STN  
05/31/2024*

· **Abbreviations and acronyms:**

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*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*

*Flammable Liquids 2: Flammable liquids – Category 2*

*Specific Target Organ Toxicity - Single Exposure 2: Specific target organ toxicity (single exposure) – Category 2*

· **\* Data compared to the previous version altered.**

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