Printing date 11/17/2017

Reviewed on 11/17/2017

1 Identification

- · Product identifier
- Trade name: <u>Ethyl Alcohol</u> 7.00% w/w Certified Solution
- · Article number: FS017
- 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

Flam. Liq. 4 H227 Combustible liquid.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms Not Applicable
- · Signal word Warning
- *Hazard statements Combustible liquid.*
- · Precautionary statements

Keep away from flames and hot surfaces. – No smoking. Wear protective gloves/protective clothing/eye protection/face protection. In case of fire: Use for extinction: CO2, powder or water spray. Store in a well-ventilated place. Keep cool. Dispose of contents/container in accordance with local/regional/national/international regulations.

• Classification system:

· NFPA ratings (scale 0 - 4)



 $Health = 1 \\ Fire = 2 \\ Reactivity = 0$

· HMIS-ratings (scale 0 - 4)

HEALTH1Health = 1FIRE2Fire = 2REACTIVITY0Reactivity = 0

· Other hazards

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.

(Contd. on page 2)

Printing date 11/17/2017

Reviewed on 11/17/2017

Trade name: Ethyl Alcohol

7.00% w/w Certified Solution

(Contd. of page 1)

7.0%

93.0%

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

• Table of Nonhazardous Ingredients

CAS: 7732-18-5 Water

4 First-aid measures

- · Description of first aid measures
- 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: If symptoms persist consult 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. • 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:
- 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). 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

(Contd. on page 3)

Printing date 11/17/2017

Reviewed on 11/17/2017

(Contd. of page 2)

3300* ppm

15000* ppm

Trade name: Ethyl Alcohol

7.00% w/w Certified Solution

· PAC-2:

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

· PAC-3:

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

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.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- 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: 64-17-5 Ethyl Alcohol, Absolute 200 Proof

PEL Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1880 mg/m³, 1000 ppm

• Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls

- · Personal protective equipment:
- General protective and hygienic measures: 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.

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 \cdot *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: Goggles recommended during refilling.

(Contd. on page 4)

US -

Printing date 11/17/2017

Reviewed on 11/17/2017

(Contd. of page 3)

Trade name: Ethyl Alcohol 7.00% w/w Certified Solution

· Body protection: Protective work clothing

Form:Li Color:Odor:ChangeOdor threshold:NaOdor threshold:NapH-value:NaChange in condition Melting point/Melting range:NaChange in condition Melting point/Boiling range:NaFlash point:62Flash point:62Flammability (solid, gaseous):NaIgnition temperature:NaAuto igniting:PaDanger of explosion:NaExplosion limits: Lower: Upper:NaVapor pressure at 20 °C (68 °F):23Density at 20 °C (68 °F):0.Relative density Vapor densityNaVapor analytic pointNaVapor density Evaporation rateNa	iquid lear lcohol ot determined. ot determined. $3 \circ C (172.4 \circ F)$ $2 \circ C (172.4 \circ F)$ $2 \circ C (143.6 \circ F)$ ot applicable. $25 \circ C (797 \circ F)$ ot determined. roduct is not selfigniting. ot determined. ot determined. ot determined. 3 hPa (17.3 mm Hg)
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Relative densityNoVapor densityNoEvaporation rateNo	
Vapor densityNoEvaporation rateNo	98525 g/cm ³ (8.22191 lbs/gal)
Evaporation rate No	ot determined.
1	ot determined.
Solubility in / Miscibility with	ot determined.
Water: Fi	ully miscible.
Partition coefficient (n-octanol/water): No	ot determined.
Viscosity:	
2,5100111111	ot determined.
Kinematic: No	ot determined.
Solvent content:	
	0 %
	3.0 %
	00 %
69	9.0 g/l / 0.58 lb/gl
Solids content: 7.	0 %

Printing date 11/17/2017

Reviewed on 11/17/2017

Trade name: Ethyl Alcohol

7.00% w/w Certified Solution

(Contd. of page 4)

• 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:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- \cdot Additional toxicological information:
- · Carcinogenic categories

· IARC (International Agency for Research on Cancer)

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

· 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.

(Contd. on page 6)

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Printing date 11/17/2017

Reviewed on 11/17/2017

Trade name: Ethyl Alcohol

7.00% w/w Certified Solution

(Contd. of page 5)

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

14 Iransport information	
· UN-Number · DOT, ADN, IMDG, IATA	Not regulated
· UN proper shipping name · DOT, ADN, IMDG, IATA	Not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA · Class	Not regulated
· Packing group · DOT, IMDG, IATA	Not regulated
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
• Transport in bulk according to Annex II o MARPOL73/78 and the IBC Code	f Not applicable.
· UN "Model Regulation":	Not regulated

15 Regulatory information

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

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

• TSCA (Toxic Substances Control Act):

Ethyl Alcohol, Absolute 200 Proof

Water

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

(Contd. on page 7)

US ·

Printing date 11/17/2017

Reviewed on 11/17/2017

Trade name: Ethyl Alcohol

7.00% w/w Certified Solution

(Contd. of page 6)

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· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

 \cdot 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

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

• TLV (Threshold Limit Value established by ACGIH)

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

· 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* Not Applicable

· Signal word Warning

· Hazard statements

Combustible liquid.

· Precautionary statements

Keep away from flames and hot surfaces. – No smoking.

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

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

Store in a well-ventilated place. Keep cool.

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 11-17-2017: review SDS for accuracy. STN Creation date for SDS 03-12-2015. STN 11/17/2017 / -

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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

(Contd. on page 8)

US

Printing date 11/17/2017

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Trade name: Ethyl Alcohol 7.00% w/w Certified Solution

NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Flam. Liq. 4: Flammable liquids – Category 4 (Contd. of page 7)