Printing date 05/11/2023 Reviewed on 05/11/2023

1 Identification

· Product identifier

• Trade name: Mixed Alcohol Solvent

Propagad to ASTM D 3230 13

Prepared to ASTM D 3230-13

· Article number: 5912

· 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

Technical Coordinator

Sherman Nelson 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.



GHS06 Skull and crossbones

Acute Toxicity - Oral 3	H301	Toxic if swallowed.
Acute Toxicity - Dermal 3	H311	Toxic in contact with skin.
Acute Toxicity Inhalation 3	H331	Toxic if inhaled



GHS08 Health hazard

Specific Target Organ Toxicity - Single Exposure 1 H370 Causes damage to the central nervous system and the visual organs.



Eye Damage 1 H318 Causes serious eye damage.



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Skin Irritation 2

H315

Causes skin irritation.

Specific Target Organ Toxicity - Single Exposure 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

· Label elements

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











GHS02

GHS05

GHS06

GHS08 GH

· Signal word Danger

· Hazard-determining components of labeling:

n-Butyl Alcohol

Methanol

· Hazard statements

Highly flammable liquid and vapor.

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

Causes skin irritation.

Causes serious eye damage.

Causes damage to the central nervous system and the visual organs.

May cause respiratory irritation. May cause drowsiness or dizziness.

· Precautionary statements

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

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.

Use only outdoors or in a well-ventilated area.

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

If swallowed: Immediately call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

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

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed: Call a POISON CENTER or doctor/physician.

Call a poison center/doctor if you feel unwell.

Take off immediately all contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

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

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

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- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 3 Fire = 3Reactivity = 0

· 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: 71-36-3 n-Butyl Alcohol	63.301%
CAS: 67-56-1 Methanol	36.327%
· Table of Nonhazardous Ingredients	
CAS: 7732-18-5 Water	0.372%

4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Do not induce vomiting; immediately call for medical help.
- · 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.

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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

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).

Use neutralizing agent.

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: 71-36-3	n-Butyl Alcohol	60 ppm
CAS: 67-56-1	Methanol	530 ppm
· PAC-2:		
CAS: 71-36-3	n-Butyl Alcohol	800 ppm
CAS: 67-56-1	Methanol	2,100 ppm
· PAC-3:		
	n-Butyl Alcohol	8000** ppm
CAS: 67-56-1	Methanol	7200* ppm

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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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: 71-36-3 n-Butyl Alcohol

PEL Long-term value: 300 mg/m³, 100 ppm

REL Ceiling limit value: 150 mg/m³, 50 ppm

Skir

TLV Long-term value: 20 ppm

CAS: 67-56-1 Methanol

PEL Long-term value: 260 mg/m³, 200 ppm

REL Short-term value: 325 mg/m³, 250 ppm

Long-term value: 260 mg/m³, 200 ppm

Skin

TLV Short-term value: 250 ppm

Long-term value: 200 ppm

Skin; BEI

· 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)

- · 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.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· 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.

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· 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

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

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

	l .
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. 64 °C (147.2 °F)
· Flash point:	11 °C (51.8 °F)
· Flammability (solid, gaseous):	Highly flammable.
· Auto igniting:	340 °C (644 °F)
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.

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	(Contd. of page
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapo mixtures are possible.
· Explosion limits:	
Lower:	1.5 Vol %
Upper:	44 Vol %
· Vapor pressure at 20 °C (68 °F):	128 hPa (96 mm Hg)
· Density at 20 °C (68 °F):	0.80616 g/cm³ (6.72741 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/wate	er): Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	99.6 %
Water:	0.4 %
VOC content:	99.63 %

10 Stability and reactivity

Solids content:

· Other information

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

803.2 g/l / 6.70 lb/gal

No further relevant information available.

0.0 %

- · 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 th	at are re	levant for	classification.
LDILCOU	vuiues iii	ui ui e i e	wun ioi	cussiiicuiiii.

ATE (Acute Toxicity Estimate)			
Oral		204 mg/kg	
Dermal	<i>LD50</i>	826 mg/kg	
Inhalative	LC50/4h	8.26 mg/l	

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- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Strong irritant with the danger of severe eye injury.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Irritant

- · 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. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- · 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.

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Transport information	
UN-Number DOT, IMDG, IATA	UN1993
UN proper shipping name DOT IMDG, IATA	Flammable liquids, n.o.s. (Methanol, Butanols) FLAMMABLE LIQUID, N.O.S. (Methanol, Butanols)
Transport hazard class(es)	
DOT	
P.AMMAINE LOUIS S Class	3 Flammable liquids
Label	3
IMDG, IATA	
Class Label	3 Flammable liquids
Packing group DOT, IMDG, IATA	II
Environmental hazards:	11
Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids
Hazard identification number (Kemler code):	336
EMS Number:	F- E , S - D
Stowage Category	В
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: 5 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 LIQUID, N.O.S. (METHANO BUTANOLS), 3, II

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15 Regulatory information

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

Section ded (chin entery magain doub substances)	· Section 355	(extremely	hazardous	substances):
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None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

CAS: 71-36-3 n-Butyl Alcohol

CAS: 67-56-1 Methanol

· TSCA (Toxic Substances Control Act):

n-Butyl Alcohol ACTIVE
Methanol ACTIVE
Water 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.

· 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

· Carcinogenic categories

· EPA (Environmental Protection Agency)

CAS: 71-36-3 n-Butyl Alcohol

D

· TLV (Threshold Limit Value)

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







GHS06



GHS08



GHS02 GHS05

· Signal word Danger

· Hazard-determining components of labeling:

n-Butyl Alcohol

Methanol

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· Hazard statements

Highly flammable liquid and vapor.

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

Causes skin irritation.

Causes serious eye damage.

Causes damage to the central nervous system and the visual organs.

May cause respiratory irritation. May cause drowsiness or dizziness.

· Precautionary statements

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

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.

Use only outdoors or in a well-ventilated area.

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

If swallowed: Immediately call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

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

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed: Call a POISON CENTER or doctor/physician.

Call a poison center/doctor if you feel unwell.

Take off immediately all contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

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

Store in a well-ventilated place. Keep container tightly closed.

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

Revision 1.0 05/11/2023, reviewed SDS for accuracy. STN

Creation date for SDS 07-17-2014. STN

05/11/2023

· 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)

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Safety Data Sheet acc. to OSHA HCS

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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

Acute Toxicity - Oral 3: Acute toxicity - Category 3 Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Specific Target Organ Toxicity - Single Exposure 1: Specific target organ toxicity (single exposure) - Category 1

* * Data compared to the previous version altered.