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Reviewed on 01/04/2018

NS

1 Identification

- · Product identifier
- Trade name: Azeotrope Mixture
- Article number: SPX250
- · 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

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· Signal word Danger

2 Hazard(s)	identificat	tion
· Classificatio	on of the subs	stance or mixture
G C	HS02 Flame	
Flam. Liq. 2	H225	Highly flammable liquid and vapor.
G C	HS08 Health	hazard
Carc. 1B	H350	May cause cancer.
STOT SE 1	H370	Causes damage to organs.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.
Acute Tox. 4	HS07 H302	Harmful if swallowed.
Skin Irrit. 2		Causes skin irritation.
Eye Irrit. 2A	H319	Causes serious eye irritation.
•		6 May cause respiratory irritation. May cause drowsiness or dizziness.
· Label eleme · GHS label e · Hazard picto	lements The	product is classified and labeled according to the Globally Harmonized System (GHS).

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Trade name: Azeotrope Mixture

	(Contd. of page 1)
Hazard-determining components of labeling:	
Dichloromethane (Methylene Chloride)	
Methanol (Methyl Alcohol)	
Acetone	
Hazard statements	
Highly flammable liquid and vapor.	
Harmful if swallowed.	
Causes skin irritation.	
Causes serious eye irritation.	
May cause cancer.	
Causes damage to organs.	
May cause respiratory irritation. May cause drowsiness or dizziness.	
May cause damage to organs through prolonged or repeated exposure.	
Precautionary statements	
Obtain special instructions before use.	
Do not handle until all safety precautions have been read and understood.	
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/showe	r.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if presen	t and easy to do.
Continue rinsing.	·
IF exposed or concerned: Get medical advice/attention.	
Get medical advice/attention if you feel unwell.	
Specific treatment (see on this label).	
Rinse mouth.	
If skin irritation occurs: Get medical advice/attention.	
If eye irritation persists: Get medical advice/attention.	
Take off contaminated clothing and wash it before reuse.	
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 regulatio	ns.
Classification system:	
NFPÅ ratings (scale 0 - 4)	
Health = 2	
Fire = 2	
2 0 Reactivity = 0	
HMIS-ratings (scale 0 - 4)	
HEALTH 3 $Health = 3$	
FIRE 2 $Fire = 2$	
REACTIVITY 0 <i>Reactivity</i> = 0	
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Safety Data Sheet acc. to OSHA HCS

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Trade name: Azeotrope Mixture

- · 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:

2 4.1.8 1. 0 1.5 1 0		
CAS: 75-09-2	Dichloromethane (Methylene Chloride)	79.694%
CAS: 67-56-1	Methanol (Methyl Alcohol)	10.163%
CAS: 67-64-1	Acetone	10.144%

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: 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. If symptoms persist, consult a doctor.
- · 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.

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Trade name: Azeotrope Mixture

		(Contd. of page 3
• Reference to		
	for information on safe handling.	
	for information on personal protection equipment.	
	3 for disposal information.	
· Protective Ac	tion Criteria for Chemicals	
· PAC-1:		
CAS: 75-09-2	2 Dichloromethane (Methylene Chloride)	200 ppm
CAS: 67-56-1	Methanol (Methyl Alcohol)	530 ppm
CAS: 67-64-1	Acetone	200 ppm
· PAC-2:		
CAS: 75-09-2	Dichloromethane (Methylene Chloride)	560 ppm
CAS: 67-56-1	Methanol (Methyl Alcohol)	2,100 ppm
CAS: 67-64-1	Acetone	3200* ppm
· PAC-3:		
CAS: 75-09-2	2 Dichloromethane (Methylene Chloride)	6,900 ppm
CAS: 67-56-1	Methanol (Methyl Alcohol)	7200* ppm
CAS: 67-64-1	Acetone	5700* ppm

7 Handling and storage

· Handling:

- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · 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: 75-09-2 Dichloromethane (Methylene Chloride)	
PEL Short-term value: 125 ppm Long-term value: 25 ppm see 29 CFR 1910.1052	
REL See Pocket Guide App. A TLV Long-term value: 174 mg/m ³ , 50 ppm BEI	

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Trade name: Azeotrope Mixture

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		(Contd. of page 4)
	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
		Short-term value: 328 mg/m ³ , 250 ppm
		Long-term value: 262 mg/m ³ , 200 ppm
		Skin; BEI
		67-64-1 Acetone
	PEL	Long-term value: 2400 mg/m ³ , 1000 ppm
	REL	Long-term value: 590 mg/m ³ , 250 ppm
	TLV	Short-term value: 1187 mg/m³, 500 ppm
		Long-term value: 594 mg/m ³ , 250 ppm
		BEI
Γ	· Ingre	dients with biological limit values:
	CAS:	75-09-2 Dichloromethane (Methylene Chloride)
		0.3 mg/L
		LD50 Intraperitoneal: urine
		Time: end of shift
		LD50: Dichloromethane (semi-quantitative)
		67-56-1 Methanol (Methyl Alcohol)
		15 mg/L
		LD50 Intraperitoneal: urine Time: end of shift
		LD50: Methanol (background, nonspecific)
┢		67-64-1 Acetone
	BEI S	50 mg/L
		LD50 Intraperitoneal: urine
		Time: end of shift
		LD50: Acetone (nonspecific)
	· Addit	ional information: The lists that were valid during the creation were used as basis.
	· Expo	sure controls
	· Perso	nal protective equipment:
		ral protective and hygienic measures:
		away from foodstuffs, beverages and feed.
		diately remove all soiled and contaminated clothing. hands before breaks and at the end of work.
		protective clothing separately.
		contact with the eyes and skin.
		hing equipment:
		se of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use
		ratory protective device that is independent of circulating air.
	· Prote	ction of hands:
	ſſ	
	1115	Protective gloves
	The g	love material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Trade name: Azeotrope Mixture

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- 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

• General Information	
· Appearance:	
Form:	Liquid
Color:	<i>Clear</i>
· Odor:	Methylene Chloride
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	55 °C (131 °F)
· Flash point:	-17 °C (1.4 °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/vapo mixtures are possible.
· Explosion limits:	
Lower:	2.6 Vol %
Upper:	44 Vol %
· Vapor pressure at 20 °C (68 °F):	453 hPa (339.8 mm Hg)
• Density at 20 °C (68 °F):	1.16823 g/cm ³ (9.74888 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
• Evaporation rate	Not determined.

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Trade name: Azeotrope Mixture

		(Contd. of page
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.	
Partition coefficient (n-octanol/	vater): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:		
Organic solvents:	100.0 %	
VOC content:	10.16 %	
	118.7 g/l / 0.99 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	1,713-1,870 mg/kg (rat)
Dermal	LD50	>2,510 mg/kg (rat)
Inhalative	LC50/4 h	1,261 mg/l (rat)

CAS: 75-09-2 Dichloromethane (Methylene Chloride)

Oral LD50 500 mg/kg (ATE)

CAS: 67-5	6-1 Metha	nol (Methyl Alcohol)
Oral	LD50	100 mg/kg (ATE)
	LD50	300 mg/kg (ATE)
Inhalative	LC50/4 h	3 mg/l (ATE)

· Primary irritant effect:

• on the skin: Irritant to skin and mucous membranes.

• on the eye: 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

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Trade name: Azeotrope Mixture

· Carcinogenic categories

• *IARC* (*International Agency for Research on Cancer*) CAS: 75-09-2 Dichloromethane (Methylene Chloride)

• NTP (National Toxicology Program)

CAS: 75-09-2 Dichloromethane (Methylene Chloride)

· OSHA-Ca (Occupational Safety & Health Administration)

CAS: 75-09-2 Dichloromethane (Methylene Chloride)

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 2 (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system.
- Danger to drinking water if even small quantities leak into the ground.
- · 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.

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

· UN-Number	
· DOT, IMDG, IATA	UN2929
· UN proper shipping name	
$\cdot DOT$	Toxic liquids, flammable, organic, n.o.s. (Dichloromethand
	Methanol, Acetone)
· IMDG, IATA	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S
	(DICHLOROMETHANE, METHANOL, ACETONE)

[·] Uncleaned packagings:

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		(Contd. of page
Transport hazard class(es)		
DOT		
6		
Class	6.1 Toxic substances	
	6.1, 3	
IMDG		
Class Label	3 Flammable liquids 6.1/3	
IATA		
6 3		
Class	6.1 Toxic substances	
Label	6.1 (3)	
Packing group		
DOT, IMDG, IATA	II	
Environmental hazards:	No	
Marine pollutant:		
Special precautions for user Danger code (Kemler):	<i>Warning: Toxic substances</i> 613	
EMS Number:	<i>F-E,S-D</i>	
Segregation groups	Liquid halogenated hydrocarbons	
Stowage Category	В	
Stowage Code	SW2 Clear of living quarters.	
Transport in bulk according to Annex		
MARPOL73/78 and the IBC Code	Not applicable.	
Transport/Additional information:		
DOT		
Quantity limitations	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L	
IMDG		
Limited quantities (LQ)	100 ml	
Excepted quantities (EQ)	Code: E4	
	Maximum net quantity per inner packaging: 1 ml	
	Maximum net quantity per outer packaging: 500 ml	
		(Contd. on page

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· UN "Model Regulation":

UN 2929 TOXIC LIQUIDS, FLAMMABLE, ORGANIC, N.O.S. (DICHLOROMETHANE, METHANOL, ACETONE), 6.1 (3), II

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):

CAS: 75-09-2 Dichloromethane (Methylene Chloride)

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

• TSCA (Toxic Substances Control Act): Dichloromethane (Methylene Chloride)

Methanol (Methyl Alcohol)

Acetone

· Proposition 65

· Chemicals known to cause cancer:

CAS: 75-09-2 Dichloromethane (Methylene Chloride)

· 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)

CAS: 75-09-2 Dichloromethane (Methylene Chloride)

CAS: 67-64-1 Acetone

· TLV (Threshold Limit Value established by ACGIH)

CAS: 75-09-2 Dichloromethane (Methylene Chloride)

CAS: 67-64-1 Acetone

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

CAS: 75-09-2 Dichloromethane (Methylene Chloride)

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



· Signal word Danger

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Trade name: Azeotrope Mixture

	(Contd. of page 10
Hazard-determining components of labeling:	
Dichloromethane (Methylene Chloride)	
Methanol (Methyl Alcohol)	
Acetone	
Hazard statements	
Highly flammable liquid and vapor.	
Harmful if swallowed.	
Causes skin irritation.	
Causes serious eye irritation.	
May cause cancer.	
Causes damage to organs.	
May cause respiratory irritation. May cause drowsiness or dizziness.	
May cause damage to organs through prolonged or repeated exposure.	
Precautionary statements	
Obtain special instructions before use.	
Do not handle until all safety precautions have been read and understood.	
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/	
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if <i>p</i>	present and easy to de
Continue rinsing.	
IF exposed or concerned: Get medical advice/attention.	
Get medical advice/attention if you feel unwell.	
Specific treatment (see on this label).	
Rinse mouth.	
If skin irritation occurs: Get medical advice/attention.	
If eye irritation persists: Get medical advice/attention.	
Take off contaminated clothing and wash it before reuse.	
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 reg	gulations.
National regulations:	
Additional classification according to Decree on Hazardous Materials:	
Carcinogenic hazardous material group III (dangerous).	
Information about limitation of use:	
Workers are not allowed to be exposed to the hazardous carcinogenic materials contain	ned in this preparation
Exceptions can be made by the authorities in certain cases.	
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	

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	This information is based on our present knowledge. However, this shall not constitute a guarantee for a pecific product features and shall not establish a legally valid contractual relationship.
	Department issuing SDS: Environment protection department.
(Contact:
1	Date of preparation / last revision
	01-04-2018: review SDS for accuracy. STN
	Revision 0.0, 02-07-2016: Creation date for SDS. STN
	01/04/2018 / -
	Abbreviations and acronyms:
	DR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the Internatio
	Carriage of Dangerous Goods by Road)
	MDG: International Maritime Code for Dangerous Goods
	DOT: US Department of Transportation
	ATA: International Air Transport Association CGIH: American Conference of Governmental Industrial Hygienists
	EINECS: European Inventory of Existing Commercial Chemical Substances
	ELINCE: European List of Notified Chemical Substances
	CAS: Chemical Abstracts Service (division of the American Chemical Society)
	FPA: National Fire Protection Association (USA)
	IMIS: Hazardous Materials Identification System (USA)
	OC: Volatile Organic Compounds (USA, EU)
	C50: Lethal concentration, 50 percent
I	D50: Lethal dose, 50 percent
ŀ	PBT: Persistent, Bioaccumulative and Toxic
	PvB: very Persistent and very Bioaccumulative
	VIOSH: National Institute for Occupational Safety
	DSHA: Occupational Safety & Health
	'LV: Threshold Limit Value
	PEL: Permissible Exposure Limit
	REL: Recommended Exposure Limit
	SEI: Biological Exposure Limit
	Flam. Liq. 2: Flammable liquids – Category 2 Acute Tox. 4: Acute toxicity – Category 4
	kuie 10x. 4: Acute toxicity – Category 4 'kin Irrit. 2: Skin corrosion/irritation – Category 2
	Eye Irrit. 2. Skin corrosion/irritation – Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
	Carc. 1B: Carcinogenicity – Category 1B
	TOT SE 1: Specific target organ toxicity (single exposure) – Category 1
	TOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2