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Reviewed on 06/06/2024

Identification	
Product identifier	
Trade name: <u>BS&W Solvent</u> <u>Prepared to ASTM D1796</u>	
Article number: SPX760	
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	AQUA SOLUTIONS
Information department: Technical Coordinator Sherman Nelson shermann@aquasolutions.org Emergency telephone number: Chemtrec: 800-424-9300 Canutec: 613-996-6666	
Hazard(s) identification	
Classification of the substance or mixture GHS02 Flame	
Flammable Liquids 2 GHS08 Health hazard	H225 Highly flammable liquid and vapor.
<i>Toxic to Reproduction 2</i>	H361 Suspected of damaging fertility or the unborn child
-	2 H373 May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard 1	H304 May be fatal if swallowed and enters airways.
GHS07	
Skin Irritation 2	H315 Causes skin irritation.
Specific Target Organ Toxicity - Single Exposure 3	H336 May cause drowsiness or dizziness.
Label elements GHS label elements The product is classified and lab Hazard pictograms	eled according to the Globally Harmonized System (GHS).
GHS02 GHS07 GHS08	
Signal word Danger	

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	(Contd. of page 1)
Hazard-determining components of labeling:	
Toluene	
1,2,4-Trimethylbenzene	
Solvent naphtha (petroleum), light arom.	
Cumene	
Ethylbenzene, Anhydrous, 99.8%	
Hazard statements	
Highly flammable liquid and vapor.	
Causes skin irritation.	
Suspected of damaging fertility or the unborn child.	
May cause drowsiness or dizziness.	
May cause damage to organs through prolonged or repeated exposure.	
May be fatal if swallowed and enters airways.	
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.	
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.	
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).	
Do NOT induce vomiting.	
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 exposed or concerned: Get medical advice/attention.	
Call a poison center/doctor if you feel unwell.	
Get medical advice/attention if you feel unwell.	
Take off 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 regulation	S.
Classification system:	
NFPA ratings (scale 0 - 4)	
Health = 1	
$\frac{3}{Fire = 3}$	
$\frac{1}{1} \frac{0}{Reactivity} = 0$	
HMIS-ratings (scale 0 - 4)	
HEALTH 1 $Health = 1$	
FIRE 3 Fire = 3	
REACTIVITY Reactivity = 0	

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· 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: 108-88-3	Toluene	99.541%		
· Table of Nonha	zardous Ingredients			
CAS: 7732-18-5	Water	0.43%		
CAS: 95-63-6	1,2,4-Trimethylbenzene	0.009%		
CAS: 64742-95-	6 Solvent naphtha (petroleum), light arom.	0.009%		
CAS: 104-76-7	2-Ethyl-1-hexanol	0.003%		
CAS: 108-67-8	mesitylene	0.003%		
CAS: 526-73-8	1,2,3-Trimethylbenzene	0.001%		
CAS: 1330-20-7	Xylene (Xylol)	0.001%		
CAS: 98-82-8	Cumene	0.0003%		
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	0.0003%		

4 First-aid measures

· Description of first aid measures

• General information:

Immediately remove any clothing soiled by the product.

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.
- 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.

• For safety reasons unsuitable extinguishing agents: Water with full jet

• Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced.

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· 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: 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: 108-88-3	Toluene	67 ppm
CAS: 95-63-6	1,2,4-Trimethylbenzene	140 ppn
CAS: 104-76-7	2-Ethyl-1-hexanol	0.1 ppm
CAS: 108-67-8	mesitylene	140 ppn
CAS: 526-73-8	1,2,3-Trimethylbenzene	140 ppn
CAS: 1330-20-7	Xylene (Xylol)	130 ppn
CAS: 98-82-8	Cumene	50 ppm
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	33 ppm
PAC-2:		
CAS: 108-88-3	Toluene	560 ppm
CAS: 95-63-6	1,2,4-Trimethylbenzene	360 ppm
CAS: 104-76-7	2-Ethyl-1-hexanol	100 ppm
CAS: 108-67-8	mesitylene	360 ppm
CAS: 526-73-8	1,2,3-Trimethylbenzene	360 ppm
CAS: 1330-20-7	Xylene (Xylol)	920* ppm
CAS: 98-82-8	Cumene	300 ppm
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	1100* ppn
PAC-3:		
CAS: 108-88-3	Toluene	3700* ppn
CAS: 95-63-6	1,2,4-Trimethylbenzene	480 ppm
CAS: 104-76-7	2-Ethyl-1-hexanol	200 ppm
CAS: 108-67-8	mesitylene	480 ppm
CAS: 526-73-8	1,2,3-Trimethylbenzene	480 ppm
CAS: 1330-20-7	Xylene (Xylol)	2500* ppn
CAS: 98-82-8	Cumene	730 ppm

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CAS: 100-41-4 Ethylbenzene, Anhydrous, 99.8%

(Contd. of page 4) 1800* 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. 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.
- \cdot 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: 108-88-3 Toluene

- PEL Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
- REL Short-term value: 560 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm
- *TLV Long-term value: 20 ppm BEI, OTO, A4*

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-	redients with biological limit values:
	S: 108-88-3 Toluene
BE	I 0.02 mg/L
	LD50 Intraperitoneal: blood
	Time: prior to last shift of workweek
	LD50: Toluene
	0.03 mg/L
	LD50 Intraperitoneal: urine
	Time: end of shift
	LD50: Toluene
	0.2 mala magtining
	0.3 mg/g creatinine LD50 Intraperitoneal: urine
	Time: end of shift
	LD50: o-Cresol with hydrolysis (background)
A 1	
	ditional information: The lists that were valid during the creation were used as basis.
	posure controls
	sonal protective equipment:
	neral protective and hygienic measures:
	ep away from foodstuffs, beverages and feed.
	nediately remove all soiled and contaminated clothing.
	sh hands before breaks and at the end of work.
	re protective clothing separately.
	pid contact with the skin.
	oid contact with the eyes and skin.
	eathing equipment:
	case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure us
	piratory protective device that is independent of circulating air.
rn	otection of hands:
	Protective gloves
The	e glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
	e to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the
	mical mixture.
	ection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
	terial of gloves
	e selection of the suitable gloves does not only depend on the material, but also on further marks of quality an
	ies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of
	glove material can not be calculated in advance and has therefore to be checked prior to the application.
	netration time of glove material
The	e exact break through time has to be found out by the manufacturer of the protective gloves and has to b
obs	erved.
Eye	e protection:
	Tightly sealed goggles
	I Igniiv sediea goggies
4	

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Safety Data Sheet acc. to OSHA HCS

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· Body protection: Protective work clothing

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Information on basic physical and c	hemical properties
General Information	
Appearance: Form:	Liquid
Color:	Clear brown
Odor:	Aromatic
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	-95 °C (-139 °F)
Boiling point/Boiling range:	110-111 °C (230-231.8 °F)
Flash point:	4 °C (39.2 °F)
Flammability (solid, gaseous):	Highly flammable.
Auto igniting:	535 °C (995 °F)
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapo mixtures are possible.
Explosion limits:	
Lower:	1.2 Vol %
Upper:	7 Vol %
Vapor pressure at 20 °C (68 °F):	29 hPa (21.8 mm Hg)
Vapor pressure at 50 °C (122 °F):	124 hPa (93 mm Hg)
Density at 20 °C (68 °F):	0.86732 g/cm³ (7.23779 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water at 15 °C (59 °F):	0.5 g/l
Partition coefficient (n-octanol/wate	r): Not determined.
Viscosity:	
Dynamic at 20 °C (68 °F):	0.6 mPas
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	99.6 %
Water:	0.4 %
VOC content:	99.57 %
	863.6 g/l / 7.21 lb/gal
Solids content:	0.0 %

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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:

• Primary irritant effect:

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

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)			
CAS: 108-88-3	Toluene	3	
CAS: 1330-20-7	Xylene (Xylol)	3	
CAS: 98-82-8	Cumene	2B	
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	2B	
· NTP (National Toxicology Program)			
CAS: 98-82-8 C	CAS: 98-82-8 Cumene		
· 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 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

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Danger to drinking water if even small quantities leak into the ground.

· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

 \cdot 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.

· UN-Number		
· DOT, IMDG, IATA	UN1993	
· UN proper shipping name		
· DOT	Flammable liquids, n.o.s. (Toluene)	
· IMDG, IATA	FLAMMABLE LIQUID, N.O.S. (Toluene)	
· Transport hazard class(es)		
·DOT		
RAMMARE LOOD		
· Class	3 Flammable liquids	
· Label	3	
· Class	3 Flammable liquids	
· Label	3	
· Packing group		
· DOT, IMDG, IATA	II	
Environmental hazards:	Not applicable.	
· Special precautions for user	Warning: Flammable liquids	
· Hazard identification number (Kemler co		
EMS Number:	<i>F-E,<u>S-E</u></i>	
· Stowage Category	B	

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• 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
\cdot 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. (TOLUENE), 3, II

15 Regulatory information

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

Section 355 (extremely hazardous substances):	
None of the ingredients is listed.	
Section 313 (Specific toxic chemical listings):	
CAS: 108-88-3 Toluene	
CAS: 95-63-6 1,2,4-Trimethylbenzene	
CAS: 1330-20-7 Xylene (Xylol)	
CAS: 98-82-8 Cumene	
CAS: 100-41-4 Ethylbenzene, Anhydrous, 99.8%	
TSCA (Toxic Substances Control Act):	
Toluene	ACTI
Water	ACTI
1,2,4-Trimethylbenzene	ACTI
Solvent naphtha (petroleum), light arom.	ACTI
2-Ethyl-1-hexanol	ACTI
mesitylene	ACTI
1,2,3-Trimethylbenzene	ACTI
Xylene (Xylol)	ACTI
Cumene	ACTI
Ethylbenzene, Anhydrous, 99.8%	ACTI
Hazardous Air Pollutants	
CAS: 108-88-3 Toluene	
CAS: 1330-20-7 Xylene (Xylol)	
CAS: 98-82-8 Cumene	
CAS: 100-41-4 Ethylbenzene, Anhydrous, 99.8%	

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· Proposition 65

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· Chemicals know	wn to cause cancer:
CAS: 98-82-8	Cumene

CAS: 100-41-4 Ethylbenzene, Anhydrous, 99.8%

· 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: 108-88-3 Toluene

· Carcinogenic categories

· EPA (Environmental Protection Agency)				
CAS: 108-88-3	Toluene	II		
CAS: 95-63-6	1,2,4-Trimethylbenzene	II		
CAS: 108-67-8	mesitylene	II		
CAS: 526-73-8	1,2,3-Trimethylbenzene	II		
CAS: 1330-20-7	Xylene (Xylol)	Ι		
CAS: 98-82-8	Cumene	D, CBD		
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	D		
· TLV (Threshold Limit Value)				
CAS: 108-88-3	Toluene	A4		
CAS: 1330-20-7	Xylene (Xylol)	A4		
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	A3		
· 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*



· Signal word Danger

Hazard-determining components of labeling: Toluene
1,2,4-Trimethylbenzene
Solvent naphtha (petroleum), light arom.
Cumene
Ethylbenzene, Anhydrous, 99.8%
Hazard statements
Highly flammable liquid and vapor.
Causes skin irritation.
Suspected of damaging fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

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May be fatal if swallowed and enters airways.	
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.	
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.	
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).	
Do NOT induce vomiting.	
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/sl	hower.
<i>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</i>	
IF exposed or concerned: Get medical advice/attention.	
Call a poison center/doctor if you feel unwell.	
Get medical advice/attention if you feel unwell.	
Take off 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 regu	lations.
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.

- 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*
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health

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TLV: Threshold Limit Value	
PEL: Permissible Exposure Limit	
REL: Recommended Exposure Limit	
BEI: Biological Exposure Limit	
Flammable Liquids 2: Flammable liquids – Category 2	
Skin Irritation 2: Skin corrosion/irritation – Category 2	
<i>Toxic to Reproduction 2: Reproductive toxicity – Category 2</i>	
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3	
Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2	
Aspiration Hazard 1: Aspiration hazard – Category 1	
* Data compared to the previous version altered.	