Safety Data Sheet
acc. to OSHA HCS

Printing date 01/02/2024 Reviewed on 01/02/2024

1 Identification

· **Product identifier**

· **Trade name: Hydrocarbons in Sulfolane**
Lineout / Calibration

· **Article number:** AM111

· **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

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2 Hazard(s) identification

· **Classification of the substance or mixture**

GHS02 Flame

Flammable Liquids 3 H226 Flammable liquid and vapor.

GHS08 Health hazard

Carcinogenicity 2 H351 Suspected of causing cancer.

GHS07

Acute Toxicity - Oral 4 H302 Harmful if swallowed.

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

GHS02 GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**
Tetramethylene Sulfone 99% w/w
Naphthalene

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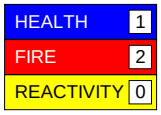
· **Hazard statements**
Flammable liquid and vapor.
Harmful if swallowed.
Suspected of causing cancer.
· **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - 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.
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.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF exposed or concerned: Get medical advice/attention.
In case of fire: Use CO_2, 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)**

Health = 1
Fire = 2
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1
Fire = 2
Reactivity = 0

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

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**		
CAS: 126-33-0	Tetramethylene Sulfone 99% w/w	95.0%
CAS: 25550-14-5	Ethylmethylbenzene	2-4.05%
CAS: 91-20-3	Naphthalene	0.9-2%

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· **Table of Nonhazardous Ingredients**

CAS: 1330-20-7	Xylene (Xylol)	0-0.6%

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:** 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:** 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.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
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: 126-33-0	Tetramethylene Sulfone 99% w/w	4.1 mg/m³

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CAS: 91-20-3	Naphthalene	15 ppm
CAS: 1330-20-7	Xylene (Xylol)	130 ppm

· **PAC-2:**

CAS: 126-33-0	Tetramethylene Sulfone 99% w/w	45 mg/m³
CAS: 91-20-3	Naphthalene	83 ppm
CAS: 1330-20-7	Xylene (Xylol)	920* ppm

· **PAC-3:**

CAS: 126-33-0	Tetramethylene Sulfone 99% w/w	400 mg/m³
CAS: 91-20-3	Naphthalene	500 ppm
CAS: 1330-20-7	Xylene (Xylol)	2500* ppm

7 Handling and storage

· **Handling:**
· **Precautions for safe handling** Open and handle receptacle with care.
· **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:** 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.

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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:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

CAS: 91-20-3 Naphthalene	
PEL	Long-term value: 50 mg/m³, 10 ppm
REL	Short-term value: 75 mg/m³, 15 ppm Long-term value: 50 mg/m³, 10 ppm
TLV	Long-term value: 10 ppm Skin; BEI, A3

· **Ingredients with biological limit values:**

CAS: 91-20-3 Naphthalene	
BEI	- LD50 Intraperitoneal: - Time: end of shift LD50: 1-Naphthol with hydrolysis + 2-Naphthol with hydrolysis (Nq,Ns)

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· **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.
· **Breathing equipment:** Not required.
· **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:	jeune pale
· **Odor:**	Aromatic
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	20-26 °C (68-78.8 °F)
Boiling point/Boiling range:	162 °C (323.6 °F)
· **Flash point:**	46 °C (114.8 °F)
· **Flammability (solid, gaseous):**	Flammable.

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· **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:	Not determined.
Upper:	Not determined.
· **Vapor pressure at 30 °C (86 °F):**	0 hPa
· **Density at 20 °C (68 °F):**	1.24523 g/cm³ (10.39144 lbs/gal)
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	0-0.6 %
VOC content:	0-0.6 % 7.5 g/l / 0.06 lb/gal
Solids content:	96.5 %
· **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	1,849-1,929 mg/kg

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· **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:
Harmful

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
CAS: 91-20-3	Naphthalene	2B
CAS: 1330-20-7	Xylene (Xylol)	3

· **NTP (National Toxicology Program)**		
CAS: 91-20-3	Naphthalene	R

· **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.

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.

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14 Transport information

· **UN-Number**
· **DOT, IMDG, IATA** UN1993

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· **UN proper shipping name**	
· **DOT**	Flammable liquids, n.o.s. (Ethylmethylbenzene, Naphthalene, Xylene (Xylol))
· **IMDG, IATA**	FLAMMABLE LIQUID, N.O.S. (Ethylmethylbenzene, Naphthalene, Xylene (Xylol))

· **Transport hazard class(es)**

· **DOT**

· **Class**	3 Flammable liquids
· **Label**	3

· **IMDG, IATA**

· **Class**	3 Flammable liquids
· **Label**	3
· **Packing group**	
· **DOT**	Not regulated
· **IMDG, IATA**	III
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Warning: Flammable liquids
· **Hazard identification number (Kemler code):**	30
· **EMS Number:**	F-E,S-E
· **Stowage Category**	A
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHYLMETHYLBENZENE, NAPHTHALENE, XYLENE (XYLOL)), 3, III

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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 355 (extremely hazardous substances):**

None of the ingredients is listed.

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

CAS: 91-20-3	Naphthalene
CAS: 1330-20-7	Xylene (Xylol)

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

Tetramethylene Sulfone 99% w/w	ACTIVE
Ethylmethylbenzene	ACTIVE
Naphthalene	ACTIVE
Xylene (Xylol)	ACTIVE

· **Hazardous Air Pollutants**

CAS: 91-20-3	Naphthalene
CAS: 1330-20-7	Xylene (Xylol)

· **Proposition 65**

· **Chemicals known to cause cancer:**

CAS: 91-20-3	Naphthalene

· **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:**
None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

CAS: 91-20-3	Naphthalene	C, CBD
CAS: 1330-20-7	Xylene (Xylol)	I

· **TLV (Threshold Limit Value)**

CAS: 91-20-3	Naphthalene	A4
CAS: 1330-20-7	Xylene (Xylol)	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 GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labeling:**
Tetramethylene Sulfone 99% w/w
Naphthalene
· **Hazard statements**
Flammable liquid and vapor.
Harmful if swallowed.
Suspected of causing cancer.
· **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.

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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.
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.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF exposed or concerned: Get medical advice/attention.
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 1.1, 01-02-2024: Reviewed/ updated SDS based on new supplier information on raw materials. STN 01/02/2024
· **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 3: Flammable liquids – Category 3
Acute Toxicity - Oral 4: Acute toxicity – Category 4
Carcinogenicity 2: Carcinogenicity – Category 2
· *** Data compared to the previous version altered.**