

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/06/2024

Reviewed on 06/06/2024

## 1 Identification

- **Product identifier**
- **Trade name:** 0.5 mg/kg S-21 in 10:90 Oil/Xylene
- **Article number:** SH072
- **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](mailto: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 3                      H226 Flammable liquid and vapor.



GHS07

Acute Toxicity - Dermal 4              H312 Harmful in contact with skin.

Acute Toxicity - Inhalation 4      H332 Harmful if inhaled.

Skin Irritation 2                        H315 Causes skin irritation.

- **Label elements**

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

- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

Xylene (Xylol)

- **Hazard statements**

Flammable liquid and vapor.

Harmful in contact with skin or if inhaled.

Causes skin irritation.

- **Precautionary statements**

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

Keep container tightly closed.

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Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/lighting/equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Avoid breathing 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 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.  
 Call a poison center/doctor if you feel unwell.  
 Specific treatment (see on this label).  
 Take off contaminated clothing and wash it before reuse.  
 If skin irritation occurs: Get medical advice/attention.  
 In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
 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)**



· **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: 1330-20-7	Xylene (Xylol)	99.67%
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· **Table of Nonhazardous Ingredients**

CAS: 8042-47-5	White mineral oil, petroleum	>0.329%
CAS: 100-00-0	Proprietary, non-hazardous material	<0.0005%

### 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.

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- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
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:**  
CO<sub>2</sub>, 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:** Mouth respiratory protective device.

## 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 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: 1330-20-7	Xylene (Xylol)	130 ppm
CAS: 7440-43-9	cadmium Metal	0.10 mg/m <sup>3</sup>

- **PAC-2:**

CAS: 1330-20-7	Xylene (Xylol)	920* ppm
CAS: 7440-43-9	cadmium Metal	0.76 mg/m <sup>3</sup>

- **PAC-3:**

CAS: 1330-20-7	Xylene (Xylol)	2500* ppm
CAS: 7440-43-9	cadmium Metal	4.7 mg/m <sup>3</sup>

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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **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:** 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 section 7.
- **Control parameters**

### · Components with limit values that require monitoring at the workplace:

CAS: 1330-20-7 Xylene (Xylol)

PEL	Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
REL	Short-term value: 655 mg/m <sup>3</sup> , 150 ppm Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
TLV	Long-term value: 20 ppm
	BEI, A4

### · Ingredients with biological limit values:

CAS: 1330-20-7 Xylene (Xylol)

BEI	1.5 g/g creatinine LD50 Intraperitoneal: urine Time: end of shift LD50: Methylhippuric acids
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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.
- 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:**

<b>Form:</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	Organic
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	36 °C (96.8 °F)

· **Flash point:** 30 °C (86 °F)

· **Flammability (solid, gaseous):** Flammable.

· **Auto igniting:** 500 °C (932 °F)

· **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:**

<b>Lower:</b>	1.1 Vol %
<b>Upper:</b>	7 Vol %

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· Vapor pressure at 20 °C (68 °F):	6.7-8.2 hPa (5-6.2 mm Hg)
· Density at 20 °C (68 °F):	0.87 g/cm <sup>3</sup> (7.26015 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water at 20 °C (68 °F):	0.2 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic at 20 °C (68 °F):	0.61 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	99.7 %
VOC content:	99.67 %
	996.7 g/l / 8.32 lb/gal
· 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:**

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>ATE (Acute Toxicity Estimate)</b>		
Dermal	LD50	1,104 mg/kg
Inhalative	LC50/4h	11 mg/l

- **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:  
Harmful  
Irritant

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· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

CAS: 1330-20-7	Xylene (Xylol)	3
CAS: 7440-43-9	cadmium Metal	1

· **NTP (National Toxicology Program)**

CAS: 7440-43-9	cadmium Metal	K
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· **OSHA-Ca (Occupational Safety & Health Administration)**

CAS: 7440-43-9	cadmium Metal	
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## 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.

· **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

· **UN-Number**

· **DOT, IMDG, IATA** UN1993

· **UN proper shipping name**

· **DOT** Flammable liquids, n.o.s. (Xylene (Xylol))  
· **IMDG, IATA** FLAMMABLE LIQUID, N.O.S. (Xylene (Xylol))

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· **Transport hazard class(es)**· **DOT**

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

· **IMDG, IATA**

· **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 code):** 30· **EMS Number:** F-E,S-D· **Stowage Category** A

· **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: 60 L  
 On cargo aircraft only: 220 L

· **IMDG**· **Limited quantities (LQ)** 5L

· **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN 1993 FLAMMABLE LIQUID, N.O.S. (XYLENE (XYLOL)), 3,  
 II

## 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.

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

CAS: 1330-20-7 Xylene (Xylol)

CAS: 7440-43-9 cadmium Metal

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

Xylene (Xylol)

ACTIVE

White mineral oil, petroleum

ACTIVE

cadmium Metal

ACTIVE

· **Hazardous Air Pollutants**

CAS: 1330-20-7 Xylene (Xylol)

· **Proposition 65**

· **Chemicals known to cause cancer:**

CAS: 7440-43-9 cadmium Metal

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

CAS: 7440-43-9 cadmium Metal

· **Chemicals known to cause developmental toxicity:**

CAS: 7440-43-9 cadmium Metal

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

CAS: 1330-20-7 Xylene (Xylol)

I

CAS: 7440-43-9 cadmium Metal

B1

· **TLV (Threshold Limit Value)**

CAS: 1330-20-7 Xylene (Xylol)

A4

CAS: 7440-43-9 cadmium Metal

A2

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

CAS: 7440-43-9 cadmium Metal

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

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

Xylene (Xylol)

· **Hazard statements**

Flammable liquid and vapor.

Harmful in contact with skin or if inhaled.

Causes skin irritation.

· **Precautionary statements**

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

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Use explosion-proof electrical/ventilating/lighting/equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Avoid breathing 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 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.  
 Call a poison center/doctor if you feel unwell.  
 Specific treatment (see on this label).  
 Take off contaminated clothing and wash it before reuse.  
 If skin irritation occurs: Get medical advice/attention.  
 In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
 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:

• **Date of preparation / last revision**

Revision 1.2, 06/05/2024: Reviewed SDS for accuracy. MH/STN

Revision 0.0, 05-29-2024: Creation date for SDS. STN

06/06/2024

• **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 - Dermal 4: Acute toxicity – Category 4

Skin Irritation 2: Skin corrosion/irritation – Category 2

• **\* Data compared to the previous version altered.**