

# Safety Data Sheet

acc. to OSHA HCS

Printing date 11/30/2017

Reviewed on 11/30/2017

## 1 Identification

- **Product identifier**
- **Trade name:** Sulfur Stock Standard  
1000 ppm w/w in Diesel
- **Article number:** LY364
- **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



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Muta. 1A    H340 May cause genetic defects.  
 Carc. 2    H351 Suspected of causing cancer.  
 Flam. Liq. 4 H227 Combustible liquid.

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



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Fuels, diesel  
Biphenyl  
Naphthalene
- **Hazard statements**  
Combustible liquid.  
May cause genetic defects.  
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 flames and hot surfaces. – No smoking.  
Wear protective gloves/protective clothing/eye protection/face protection.

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*IF exposed or concerned: Get medical advice/attention.*

*In case of fire: Use for extinction: CO<sub>2</sub>, 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 regulations.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 0

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.

## 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

CAS: 68334-30-5	Fuels, diesel	90.0%
CAS: 91-20-3	Naphthalene	3.0%
CAS: 92-52-4	Biphenyl	1.5%

· **Table of Nonhazardous Ingredients**

CAS: 2551-13-7	trimethyl benzene	1.5%
CAS: 544-40-1	n-Butyl Sulfide 99%	0.456%

## 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **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.

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## 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.
- **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.
- **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: 68334-30-5	Fuels, diesel	300 mg/m <sup>3</sup>
CAS: 91-20-3	Naphthalene	15 ppm
CAS: 92-52-4	Biphenyl	0.87 ppm

### · PAC-2:

CAS: 68334-30-5	Fuels, diesel	3,300 mg/m <sup>3</sup>
CAS: 91-20-3	Naphthalene	83 ppm
CAS: 92-52-4	Biphenyl	9.6 ppm

### · PAC-3:

CAS: 68334-30-5	Fuels, diesel	20,000 mg/m <sup>3</sup>
CAS: 91-20-3	Naphthalene	500 ppm
CAS: 92-52-4	Biphenyl	300 ppm

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **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.

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· **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: 68334-30-5 Fuels, diesel**

TLV Long-term value: 100\* mg/m<sup>3</sup>  
as total hydrocarbons; Skin; \*inh. fraction + vapor

**CAS: 91-20-3 Naphthalene**

PEL Long-term value: 50 mg/m<sup>3</sup>, 10 ppm

REL Short-term value: 75 mg/m<sup>3</sup>, 15 ppm  
Long-term value: 50 mg/m<sup>3</sup>, 10 ppm

TLV Long-term value: 52 mg/m<sup>3</sup>, 10 ppm  
Skin; BEI

**CAS: 92-52-4 Biphenyl**

PEL Long-term value: 1 mg/m<sup>3</sup>, 0.2 ppm

REL Long-term value: 1 mg/m<sup>3</sup>, 0.2 ppm

TLV Long-term value: 1.3 mg/m<sup>3</sup>, 0.2 ppm

· **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.

Wash hands before breaks and at the end of work.

· **Breathing equipment:** Not required.

· **Protection of hands:**

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:** Goggles recommended during refilling.

· **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:	Clear, colorless to light amber
· Odor:	Diesel
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	>60 °C (>140 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Not determined.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density:	Not determined.
· 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 at 40 °C (104 °F):	5 mm <sup>2</sup> /s
· Solvent content:	
VOC content:	0.00 % 0.0 g/l / 0.00 lb/gl
Solids content:	4.5 %
· 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.

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- **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	14,655 mg/kg (rat)
Dermal	LD50	166,667 mg/kg (rat)

**CAS: 91-20-3 Naphthalene**

Oral	LD50	500 mg/kg (ATE)
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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:

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

CAS: 68334-30-5	Fuels, diesel	2B
CAS: 91-20-3	Naphthalene	2B

- **NTP (National Toxicology Program)**

CAS: 91-20-3	Naphthalene	R
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- **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.
- Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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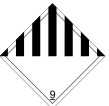

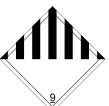
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· **Other adverse effects** No further relevant information available.

### 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

· <b>UN-Number</b>	
· <b>DOT</b>	NA1993
· <b>IMDG, IATA</b>	UN1993
· <b>UN proper shipping name</b>	
· <b>DOT</b>	COMBUSTIBLE LIQUID, N.O.S (Fuels, diesel)
· <b>IMDG</b>	FLAMMABLE LIQUID, N.O.S. (Fuels, diesel, NAPHTHALENE, CRUDE, Biphenyl), MARINE POLLUTANT
· <b>IATA</b>	FLAMMABLE LIQUID, N.O.S. (Fuels, diesel)
· <b>Transport hazard class(es)</b>	
· <b>DOT</b>	
· <b>Class</b>	Not regulated
· <b>IMDG</b>	
	 
· <b>Class</b>	9 Miscellaneous dangerous substances and articles
· <b>Label</b>	9
· <b>IATA</b>	
	
· <b>Class</b>	9 Miscellaneous dangerous substances and articles
· <b>Label</b>	9
· <b>Packing group</b>	
· <b>DOT, IMDG, IATA</b>	III
· <b>Environmental hazards:</b>	Product contains environmentally hazardous substances: Naphthalene
· <b>Marine pollutant:</b>	Symbol (fish and tree)
· <b>Special precautions for user</b>	Warning: Miscellaneous dangerous substances and articles
· <b>Danger code (Kemler):</b>	90
· <b>EMS Number:</b>	F-E, <u>S-E</u>

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· <b>Stowage Category</b>	A
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1993 FLAMMABLE LIQUIDS, N.O.S. (FUELS, DIESEL), 9, III

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

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

CAS: 91-20-3 Naphthalene

CAS: 92-52-4 Biphenyl

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

Fuels, diesel

Naphthalene

Biphenyl

n-Butyl Sulfide 99%

- **TSCA new (21st Century Act) (Substances not listed)**

- **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: 92-52-4 Biphenyl

SC

- **TLV (Threshold Limit Value established by ACGIH)**

CAS: 68334-30-5 Fuels, diesel

A3

CAS: 91-20-3 Naphthalene

A4

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· **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**



GHS08

· **Signal word** *Danger*

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

*Fuels, diesel*

*Biphenyl*

*Naphthalene*

· **Hazard statements**

*Combustible liquid.*

*May cause genetic defects.*

*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 flames and hot surfaces. – No smoking.*

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

*IF exposed or concerned: Get medical advice/attention.*

*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 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**

*11-30-2017: review SDS for accuracy. STN*

*Revision 0.0. 02-17-2016: Creation date for SDS. STN*

*11/30/2017 / -*

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*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)*

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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  
Flam. Liq. 4: Flammable liquids – Category 4  
Muta. 1A: Germ cell mutagenicity – Category 1A  
Carc. 2: Carcinogenicity – Category 2

US