

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 1 of 10

Phenol, Liquified

SECTION 1: Identification

Product identifier

Product name: Phenol, Liquified

Product code: S25463

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable.

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

Supplier:

AquaPhoenix Scientific
860 Gitts Run Road
Hanover
PA 17331
(717) 632-1291

Fisher Science Education
6771 Silver Crest Road
Nazareth
PA 18064
800 955-1177

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Skin corrosion, category 1B

Acute toxicity (oral), category 3

Acute toxicity (dermal), category 3

Acute toxicity (inhalation), category 3

Germ cell mutagenicity, category 2

Specific target organ toxicity - repeated exposure, category 2

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H314 Causes severe skin burns and eye damage

H301 Toxic if swallowed

H311 Toxic in contact with skin

H331 Toxic if inhaled

H341 Suspected of causing genetic defects

H373 May cause damage to organs through prolonged or repeated exposure

Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapors/spray

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 2 of 10

Phenol, Liquified

P264 Wash skin thoroughly after handling
P280 Wear protective gloves/protective clothing/eye protection/face protection
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P321 Specific treatment (see supplemental first aid instructions on this label).
P363 Wash contaminated clothing before reuse
P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P302+P352+P312 If on skin: Wash with soap and water. Call a poison center or doctor/physician if you feel unwell
P308+P313 If exposed or concerned: Get medical advice/attention
P405 Store locked up
P403+P233 Store in a well ventilated place. Keep container tightly closed
P501 Dispose of contents and container as instructed in Section 13

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

| Identification | Name | Weight % |
|--------------------------|-----------------|----------|
| CAS number: 6153-56-6 | Oxalic Acid | <0.01 |
| CAS number: 108-95-2 | Phenol | >89 |
| CAS number: 7732-18-5 | Deionized Water | <11 |

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

Move exposed individual to fresh air

Immediately call a POISON CONTROL CENTER or seek medical attention

Call a POISON CONTROL CENTER or seek medical attention

After skin contact:

Rinse affected area with soap and water

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 3 of 10

Phenol, Liquified

If symptoms develop or persist, seek medical attention
Immediately remove all contaminated clothing
Wash affected area with soap and water
Immediately call a POISON CONTROL CENTER or seek medical attention
Seek medical attention if symptoms develop or persist
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes
Remove contact lenses, if present and easy to do
Continue rinsing
Get medical advice/attention
Remove contact lens(es) if able to do so during rinsing
Immediately call a POISON CONTROL CENTER or seek medical attention

After swallowing:

Rinse mouth and then drink plenty of water
Do not induce vomiting
Get medical advice/attention if you feel unwell
Immediately call a POISON CONTROL CENTER or seek medical attention

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing

Refer to Section 8

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Heating causes a rise in pressure, risk of bursting and combustion

Shut off sources of ignition

Carbon monoxide and carbon dioxide may form upon combustion

SECTION 6: Accidental release measures

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 4 of 10

Phenol, Liquified

Personal precautions, protective equipment and emergency procedures:

- Ensure adequate ventilation
- Ensure air handling systems are operational
- Wear protective eye wear, gloves and clothing

Environmental precautions:

- Should not be released into the environment
- Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

- Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)
- Dispose of contents / container in accordance with local regulations

Reference to other sections:

- Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

- Do not eat, drink, smoke or use personal products when handling chemical substances.
- Avoid breathing mist or vapor.
- Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities:

- Store in a cool, well-ventilated area.
- Store away from foodstuffs.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

| Country (Legal Basis) | Substance | Identifier | Permissible concentration |
|-----------------------|-------------|------------|---|
| United States (OSHA) | Phenol | 108-95-2 | OSHA PEL TWA 19 mg/m ³ [skin] |
| | Phenol | 108-95-2 | OSHA PEL TWA 5 ppm [skin] |
| | Oxalic Acid | 6153-56-6 | OSHA PEL 1.0 mg/m ³ |
| NIOSH | Phenol | 108-95-2 | NIOSH REL TWA 5 ppm [skin] |
| | Phenol | 108-95-2 | NIOSH REL TWA 19 mg/m ³ [skin] |
| | Phenol | 108-95-2 | NIOSH REL C 15.6 ppm [15-minute] [skin] |
| | Phenol | 108-95-2 | NIOSH REL C 60 mg/m ³ [15-minute] [skin] |
| ACGIH | Phenol | 108-95-2 | ACGIH TLV TWA 5 ppm [skin] |
| | Oxalic Acid | 6153-56-6 | ACGIH TLV 1.0 mg/m ³ |
| | Oxalic Acid | 6153-56-6 | ACGIH STEL 2.0 mg/m ³ |

Biological limit values:

- No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

- Not determined or not applicable.

Appropriate engineering controls:

- Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 5 of 10

Phenol, Liquified

handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

Perform routine housekeeping.

Wash contaminated clothing before reusing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | |
|---|--|
| Appearance | Clear colorless liquid |
| Odor | Disinfectant odor |
| Odor threshold | Not determined or not available. |
| pH | 6.0 |
| Melting point/freezing point | 42.8 °C |
| Initial boiling point/range | 182.0 °C |
| Flash point (closed cup) | 79.4 °C |
| Evaporation rate | Not determined or not available. |
| Flammability (solid, gas) | Flammable |
| Upper flammability/explosive limit | 8.6 %(V) |
| Lower flammability/explosive limit | 1.7 %(V) |
| Vapor pressure | 3.2 |
| Vapor density | 3.2 |
| Density | Not determined or not available. |
| Relative density | 1.07 g/cm ³ |
| Solubilities | Soluble in water. |
| Partition coefficient (n-octanol/water) | log ₁₀ K _{ow} : 1.46 |
| Auto/Self-ignition temperature | 715.0 °C |
| Decomposition temperature | Not determined or not available. |
| Dynamic viscosity | Not determined or not available. |
| Kinematic viscosity | Not determined or not available. |
| Explosive properties | Not determined or not available. |
| Oxidizing properties | Not determined or not available. |

Other information

SECTION 10: Stability and reactivity

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 6 of 10

Phenol, Liquified

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

Incompatible materials. Light, ignition sources, excess heat, exposure to moist air or water

Incompatible materials:

Strong oxidizing agents, isocyanates, acetaldehyde, calcium hypochlorite, peroxomonosulfuric acid, nitrobenzene, sodium nitrite, aluminum chloride, peroxydisulfuric acid, 1,3 - butadiene, boron trifluoride diethyl ether.

Hazardous decomposition products:

Carbon oxides.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Toxic if swallowed Toxic in contact with skin Toxic if inhaled

Product data: No data available.

Substance data:

| Name | Route | Result |
|--------|--------|---------------------------|
| Phenol | oral | LD50 - Mouse - 270 mg/kg |
| | dermal | LD50 - Rabbit - 630 mg/kg |

Skin corrosion/irritation

Assessment: Causes severe skin burns and eye damage

Product data: No data available.

Substance data:

| Name | Result |
|--------|--|
| Phenol | Causes severe skin burns and eye damage. |

Serious eye damage/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

| Name | Result |
|-------------|----------------------------|
| Oxalic Acid | Causes serious eye damage. |

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC):

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 7 of 10

Phenol, Liquified

| Name | Classification |
|--------|--|
| Phenol | Group 3 - Not classifiable as to its carcinogenicity to humans |

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Suspected of causing genetic defects

Product data: No data available.

Substance data:

| Name | Result |
|--------|---------------------------------------|
| Phenol | Suspected of causing genetic defects. |

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

| Name | Result |
|--------|--|
| Phenol | May cause damage to organs through prolonged or repeated exposure. |

Specific target organ toxicity (repeated exposure)

Assessment: May cause damage to organs through prolonged or repeated exposure

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

| Name | Result |
|--------|--------------------------------|
| Phenol | LC50 (4 days): 8.9 - 67.5 mg/L |

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 8 of 10

Phenol, Liquified

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.


SECTION 13: Disposal considerations

Disposal methods:


It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information


United States Transportation of dangerous goods (49 CFR DOT)

| | |
|-------------------------------|---|
| UN number | 2821 |
| UN proper shipping name | PHENOL SOLUTION |
| UN transport hazard class(es) | 6.1  |
| Packing group | II |
| Environmental hazards | None |
| Special precautions for user | None |
| Reportable quantity | 1000 |
| Excepted quantities | 1g/1mL |
| Passenger air/rail | 60L |
| Cargo aircraft only | 220L |
| Stowage category | A |

International Maritime Dangerous Goods (IMDG)

| | |
|-------------------------------|---|
| UN number | 2821 |
| UN proper shipping name | PHENOL SOLUTION |
| UN transport hazard class(es) | 6.1  |
| Packing group | II |
| Environmental hazards | None |
| Special precautions for user | None |
| Excepted quantities | 1g/1mL |
| Limited quantity | 100 mL |

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

| | |
|-------------------------------|---|
| UN number | 2821 |
| UN proper shipping name | PHENOL SOLUTION |
| UN transport hazard class(es) | 6.1  |

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 9 of 10

Phenol, Liquified

| | |
|-------------------------------------|--------|
| Packing group | II |
| Environmental hazards | None |
| Special precautions for user | None |
| ERG code | 153 |
| Excepted quantities | 1g/1mL |
| Passenger and cargo | 60L |
| Cargo aircraft only | 220L |
| Limited quantity | 100 mL |

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

| | | |
|-----------|-----------------|------------|
| 108-95-2 | Phenol | Listed |
| 7732-18-5 | Deionized Water | Listed |
| 6153-56-6 | Oxalic Acid | Not Listed |

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

| | | | | |
|-------|---------|------|----------|----------|
| Acute | Chronic | Fire | Pressure | Reactive |
| No | No | No | No | No |

SARA Section 302 extremely hazardous substances:

| | | |
|----------|--------|--------|
| 108-95-2 | Phenol | Listed |
|----------|--------|--------|

SARA Section 313 toxic chemicals:

| | | |
|-----------|-----------------|------------|
| 108-95-2 | Phenol | Listed |
| 7732-18-5 | Deionized Water | Not Listed |
| 6153-56-6 | Oxalic Acid | Not Listed |

CERCLA:

| | | | |
|----------|--------|--------|------|
| 108-95-2 | Phenol | Listed | 1000 |
|----------|--------|--------|------|

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

| | | |
|-----------|-----------------|------------|
| 108-95-2 | Phenol | Listed |
| 7732-18-5 | Deionized Water | Not Listed |
| 6153-56-6 | Oxalic Acid | Listed |

New Jersey Right to Know:

| | | |
|-----------|-----------------|------------|
| 108-95-2 | Phenol | Listed |
| 7732-18-5 | Deionized Water | Not Listed |
| 6153-56-6 | Oxalic Acid | Listed |

New York Right to Know:

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.24.2018

Page 10 of 10

Phenol, Liquified

| | | |
|-----------|-----------------|------------|
| 108-95-2 | Phenol | Listed |
| 7732-18-5 | Deionized Water | Not Listed |
| 6153-56-6 | Oxalic Acid | Listed |

Pennsylvania Right to Know:

| | | |
|-----------|-----------------|------------|
| 108-95-2 | Phenol | Listed |
| 7732-18-5 | Deionized Water | Not Listed |
| 6153-56-6 | Oxalic Acid | Listed |

California Proposition 65: None of the ingredients are listed.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 3-2-0

HMIS: 3-2-0

Initial preparation date: 01.24.2018

End of Safety Data Sheet