



Be Right™

SAFETY DATA SHEET

Issue Date 16-Aug-2018

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1. IDENTIFICATION

Product identifier

Product Name Phenylarsine Oxide Standard Solution 0.00564 N

Other means of identification

Product Code(s) 199917

Safety data sheet number M00848

Recommended use of the chemical and restrictions on use

Recommended Use Determination of chlorine.

Uses advised against None.

Restrictions on use None.

Details of the supplier of the safety data sheet

Manufacturer Address

Hach Company P.O.Box 389 Loveland, CO 80539 USA +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service +1(515)232-2533 - 8am - 4pm CST

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|------------|
| Specific target organ toxicity (single exposure) | Category 1 |
| Specific target organ toxicity (repeated exposure) | Category 1 |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word - Danger



Hazard statements

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H370 - Causes damage to organs

H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements

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

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

P314 - Get medical advice/attention if you feel unwell

Other Hazards Known

Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Percent ranges are used where confidential product information is applicable.

| Chemical name | CAS No. | Percent Range | HMRIC # |
|--------------------------|-----------|---------------|---------|
| Ethylene glycol | 107-21-1 | 3 - 7% | - |
| Sodium phosphate dibasic | 7558-79-4 | <1% | - |
| Arsine, oxophenyl- | 637-03-6 | <0.1% | - |

4. FIRST AID MEASURES

Description of first aid measures

| | |
|-----------------------|---|
| General advice | Show this safety data sheet to the doctor in attendance. |
| Inhalation | Remove to fresh air. IF exposed or concerned: Get medical advice/attention. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. |
| Skin contact | Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician. |
| Ingestion | Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. |

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11 for additional Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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| | |
|---|---|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable Extinguishing Media | Caution: Use of water spray when fighting fire may be inefficient. |
| Specific hazards arising from the chemical | No information available. |
| Hazardous combustion products | This material will not burn. |
| Special protective equipment for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--------------------|--|
| U.S. Notice | Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals. |
|--------------------|--|

Personal precautions, protective equipment and emergency procedures

| | |
|-----------------------------|---|
| Personal precautions | Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. |
| Other Information | Refer to protective measures listed in Sections 7 and 8. |

Environmental precautions

| | |
|----------------------------------|---|
| Environmental precautions | See Section 12 for additional ecological information. |
|----------------------------------|---|

Methods and material for containment and cleaning up

| | |
|--|--|
| Methods for containment | Prevent further leakage or spillage if safe to do so. |
| Methods for cleaning up | Pick up and transfer to properly labeled containers. |
| Prevention of secondary hazards | Clean contaminated objects and areas thoroughly observing environmental regulations. |
| Reference to other sections | See section 8 for more information. See section 13 for more information. |

7. HANDLING AND STORAGE

Precautions for safe handling

| | |
|--------------------------------|---|
| Advice on safe handling | Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. |
|--------------------------------|---|

Conditions for safe storage, including any incompatibilities

| | |
|---------------------------|------------------|
| Storage Conditions | Store locked up. |
| Flammability class | Not applicable |

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--------------------------------------|---|---|------------|
| Ethylene glycol CAS#: 107-21-1 | STEL: 50 ppm STEL: 10 mg/m ³ TWA: 25 ppm | (vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m ³ | NDF |
| Arsine, oxophenyl- CAS#: 637-03-6 | NDF | TWA: 0.5 mg/m ³ | NDF |

Appropriate engineering controls

Engineering Controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hand Protection

Wear suitable gloves.

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

No special protective equipment required.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

Thermal hazards

None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance aqueous solution
Odor sweet

Color colorless
Odor threshold No data available

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|-------------------------------|--|---|
| Molecular weight | No data available | |
| pH | 6.7 | |
| Melting point/freezing point | ~ -2 °C / 28 °F | Estimation based on theoretical calculation |
| Boiling point / boiling range | > ~ 100 °C / 212 °F | Estimation based on theoretical calculation |
| Evaporation rate | 0.64 (water = 1) | |
| Vapor pressure | 23.327 mm Hg / 3.11 kPa at 25 °C / 77 °F | Estimation based on theoretical |

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calculation

| | |
|--|-------------------|
| Vapor density (air = 1) | 0.03 (air = 1) |
| Specific gravity (water = 1 / air = 1) | 1.033 |
| Partition Coefficient (n-octanol/water) | Not applicable |
| Soil Organic Carbon-Water Partition Coefficient | Not applicable |
| Autoignition temperature | No data available |
| Decomposition temperature | No data available |
| Dynamic viscosity | No data available |
| Kinematic viscosity | No data available |

Solubility(ies)

Water solubility

| | | |
|--|-------------------------|-------------------------------------|
| <u>Water solubility classification</u> | <u>Water solubility</u> | <u>Water Solubility Temperature</u> |
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

Solubility in other solvents

| | | | |
|----------------------|----------------------------------|-------------------|-------------------------------|
| <u>Chemical Name</u> | <u>Solubility classification</u> | <u>Solubility</u> | <u>Solubility Temperature</u> |
| Acid | Soluble | > 1000 mg/L | 25 °C / 77 °F |

Other Information

Metal Corrosivity

Steel Corrosion Rate

0.03 mm/yr / 0 in/yr

Aluminum Corrosion Rate

Volatile Organic Compounds (VOC) Content

See ingredients information below

| Chemical name | CAS No. | Volatile organic compounds (VOC) content | CAA (Clean Air Act) |
|--------------------------|-----------|--|---------------------|
| Ethylene glycol | 107-21-1 | No data available | X |
| Sodium phosphate dibasic | 7558-79-4 | No data available | - |
| Arsine, oxophenyl- | 637-03-6 | No data available | - |

Explosive properties

Upper explosion limit

No data available

Lower explosion limit

No data available

Flammable properties

Flash point

No data available

Flammability Limit in Air

Upper flammability limit

No data available

Lower flammability limit

No data available

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Oxidizing properties

No data available.

Bulk density

No data available

Particle Size

No information available

Particle Size Distribution

No information available

10. STABILITY AND REACTIVITY

Reactivity

Not applicable.

Chemical stability

Stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None.

Possibility of Hazardous Reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization

None under normal processing.

Conditions to avoid

Conditions to avoid

None known based on information supplied.

Incompatible materials

Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

Hazardous Decomposition Products

arsenic compounds. Carbon dioxide. Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Inhalation

No known effect based on information supplied.

Eye contact

No known effect based on information supplied.

Skin contact

No known effect based on information supplied.

Ingestion

No known effect based on information supplied.

Symptoms

No information available.

Aggravated Medical Conditions

Preexisting eye disorders. Skin disorders. Respiratory disorders.

Toxicologically synergistic products

None known.

Toxicokinetics, metabolism and distribution

See ingredients information below.

| Chemical name | Toxicokinetics, metabolism and distribution |
|---------------|---|
|---------------|---|

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| Chemical name | Toxicokinetics, metabolism and distribution |
|--|---|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Ethylene glycol is quickly absorbed through the GI tract, may be absorbed through respiratory tract. It is metabolised by alcohol dehydrogenase. Its by-products are eliminated from the body by CO2 and urine. |
| Sodium phosphate dibasic (<1%) CAS#: 7558-79-4 | Phosphates are widely utilized by cells for metabolism of proteins, fats and carbohydrates. |
| Arsine, oxophenyl- (<0.1%) CAS#: 637-03-6 | Arsenic compounds exhibit toxic effect on the liver, blood, nervous and cardiovascular systems. |

Product Acute Toxicity Data

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Unknown Acute Toxicity

0.0045% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

| | |
|--------------------------------------|--------------------------|
| ATEmix (oral) | 31,657.00 mg/kg |
| ATEmix (dermal) | No information available |
| ATEmix (inhalation-dust/mist) | No information available |
| ATEmix (inhalation-vapor) | No information available |
| ATEmix (inhalation-gas) | No information available |

Ingredient Acute Toxicity Data

Oral Exposure Route

If available, see data below

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|----------------------|---------------|---------------|-----------------------|---|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Rat LD ₅₀ | 1700 mg/kg | None reported | None reported | GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance) |
| Arsine, oxophenyl- (<0.1%) CAS#: 637-03-6 | Rat LD ₅₀ | 70 mg/kg | None reported | None reported | No information available |

Dermal Exposure Route

If available, see data below

Inhalation (Dust/Mist) Exposure Route

If available, see data below

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

Product Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Ingredient Specific Target Organ Toxicity Single Exposure Data

Oral Exposure Route

If available, see data below

| Chemical name | Endpoint | Reported | Exposure | Toxicological effects | Key literature references and |
|---------------|----------|----------|----------|-----------------------|-------------------------------|
|---------------|----------|----------|----------|-----------------------|-------------------------------|

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| | type | dose | time | | sources for data |
|---|-------|------------|---------------|-------|--------------------------------------|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Human | 1000 mg/kg | None reported | Death | ECHA (The European Chemicals Agency) |

Dermal Exposure Route

Inhalation (Dust/Mist) Exposure Route

Inhalation (Vapor) Exposure Route

Inhalation (Gas) Exposure Route

If available, see data below

If available, see data below

If available, see data below

If available, see data below

Aspiration toxicity

No data available

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

If available, see data below

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|---------------------------|---------|---------------|---------------|--------------------|--|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Open Irritation Test | Rabbit | 555 mg | None reported | Mild skin irritant | RTECS (Registry of Toxic Effects of Chemical Substances) |
| Sodium phosphate dibasic (<1%) CAS#: 7558-79-4 | Standard Draize Test | Rabbit | 500 mg | 24 hours | Skin irritant | RTECS (Registry of Toxic Effects of Chemical Substances) |
| Arsine, oxophenyl- (<0.1%) CAS#: 637-03-6 | Existing human experience | Human | None reported | None reported | Corrosive to skin | Internal Data |

Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

If available, see data below

| Chemical name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|----------------------|---------|---------------|---------------|--------------|--|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Standard Draize Test | Rabbit | 100000 ppm | None reported | Eye irritant | RTECS (Registry of Toxic Effects of Chemical Substances) |
| Sodium phosphate dibasic (<1%) CAS#: 7558-79-4 | Standard Draize Test | Rabbit | 500 mg | 24 hours | Eye irritant | RTECS (Registry of Toxic Effects of Chemical Substances) |

Sensitization Information

Product Sensitization Data

Skin Sensitization Exposure Route

Respiratory Sensitization Exposure Route

No data available.

No data available.

Ingredient Sensitization Data

Skin Sensitization Exposure Route

If available, see data below.

| Chemical name | Test method | Species | Results | Key literature references and sources for data |
|-----------------------------|---------------------------|---------|---------------------------------------|--|
| Ethylene glycol (3 - 7%) | Based on human experience | Human | Not confirmed to be a skin sensitizer | IUCLID (The International Uniform Chemical Information Database) |

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| | | | | |
|----------------|--|--|--|--|
| CAS#: 107-21-1 | | | | |
|----------------|--|--|--|--|

Respiratory Sensitization Exposure Route

If available, see data below.

Chronic Toxicity Information

Product Specific Target Organ Toxicity Repeat Dose Data

Oral Exposure Route

No data available.

Dermal Exposure Route

No data available.

Inhalation (Dust/Mist) Exposure Route

No data available.

Inhalation (Vapor) Exposure Route

No data available.

Inhalation (Gas) Exposure Route

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Oral Exposure Route

If available, see data below

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---------------------------|---------------|---------------|---|--|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Human TD _{Lo} | 768 mg/kg | None reported | Gastrointestinal Diarrhea Brain and Coverings Convulsions or effect on seizure threshold Coma | RTECS (Registry of Toxic Effects of Chemical Substances) |
| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Human TD _{Lo} | 1195 mg/kg | None reported | Peripheral Nerve and Sensation Renal function tests depressed | RTECS (Registry of Toxic Effects of Chemical Substances) |

Dermal Exposure Route

If available, see data below

Inhalation (Dust/Mist) Exposure Route

If available, see data below

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

Product Carcinogenicity Data

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Ingredient Carcinogenicity Data

| Chemical name | CAS No. | ACGIH | IARC | NTP | OSHA |
|--------------------------|-----------|-------|---------|-----|------|
| Ethylene glycol | 107-21-1 | - | - | - | - |
| Sodium phosphate dibasic | 7558-79-4 | - | - | - | - |
| Arsine, oxophenyl- | 637-03-6 | - | Group 1 | - | X |

Legend

| | |
|---|----------------|
| ACGIH (American Conference of Governmental Industrial Hygienists) | Does not apply |
| IARC (International Agency for Research on Cancer) | Does not apply |
| NTP (National Toxicology Program) | Does not apply |
| OSHA (Occupational Safety and Health Administration of the US Department of Labor) | Does not apply |

Oral Exposure Route

If available, see data below

Dermal Exposure Route

If available, see data below

Inhalation (Dust/Mist) Exposure Route

If available, see data below

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

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Product Germ Cell Mutagenicity *invitro* Data

No data available.

Ingredient Germ Cell Mutagenicity *invitro* Data

If available, see data below

| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|-------------------------------------|------------------|---------------|---------------|---------------------------------------|--|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | DNA inhibition | Human lymphocyte | 320 mmol/L | None reported | Positive test result for mutagenicity | RTECS (Registry of Toxic Effects of Chemical Substances) |
| Chemical name | Test | Cell Strain | Reported dose | Exposure time | Results | Key literature references and sources for data |
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Mutation in mammalian somatic cells | Mouse lymphocyte | 100 mmol/L | None reported | Positive test result for mutagenicity | RTECS (Registry of Toxic Effects of Chemical Substances) |

Product Germ Cell Mutagenicity *invivo* Data

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Ingredient Germ Cell Mutagenicity *invivo* Data

Oral Exposure Route

If available, see data below

| Chemical name | Test | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|----------------------|---------|---------------|---------------|---------------------------------------|--|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Cytogenetic analysis | Rat | 1200 mg/kg | None reported | Positive test result for mutagenicity | RTECS (Registry of Toxic Effects of Chemical Substances) |

Dermal Exposure Route

If available, see data below

Inhalation (Dust/Mist) Exposure Route

If available, see data below

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

Product Reproductive Toxicity Data

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

Ingredient Reproductive Toxicity Data

Oral Exposure Route

If available, see data below

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|------------------------|---------------|---------------|--|--|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Mouse TD _{Lo} | 1700 mg/kg | None reported | Effects on Newborn Growth statistics (e.g. % reduced weight gain) Specific Developmental Abnormalities Hepatobiliary system | RTECS (Registry of Toxic Effects of Chemical Substances) |

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| | | | | Musculoskeletal system | |
|---|---------------------------|---------------|---------------|---|--|
| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Mouse TD _{Lo} | 850 mg/kg | None reported | Effects on Newborn Growth statistics (e.g. % reduced weight gain) Specific Developmental Abnormalities Urogenital System | RTECS (Registry of Toxic Effects of Chemical Substances) |

Dermal Exposure Route

If available, see data below

Inhalation (Dust/Mist) Exposure Route

If available, see data below

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|---------------------------|---------------|---------------|---|--|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | Mouse TC _{Lo} | 1 mg/L | 6 hours | Effects on Embryo or Fetus Fetotoxicity (except death e.g. stunted fetus) Effects on Fertility Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants) | RTECS (Registry of Toxic Effects of Chemical Substances) |

Inhalation (Vapor) Exposure Route

If available, see data below

Inhalation (Gas) Exposure Route

If available, see data below

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product Ecological Data

Aquatic toxicity

Fish

No data available

Crustacea

No data available

Algae

No data available

Ingredient Ecological Data

Aquatic toxicity

Fish

If available, see ingredient data below

Crustacea

If available, see ingredient data below

Algae

No data available

Other Information

Persistence and degradability

Product Biodegradability Data

No data available.

Ingredient Biodegradability Data

| Chemical name | Test method | Biodegradation | Exposure time | Results |
|---|---|----------------|---------------|-----------------------|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D) | 96% | 28 days | Readily biodegradable |

Bioaccumulation

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Product Bioaccumulation Data

No data available.

Partition Coefficient (n-octanol/water)

Not applicable

Ingredient Bioaccumulation Data

| Chemical name | Test method | Exposure time | Species | Bioconcentration factor (BCF) | Results |
|---|---------------|---------------|---------------|-------------------------------|--|
| Ethylene glycol (3 - 7%) CAS#: 107-21-1 | None reported | 3 days | None reported | BCF = 10 | Does not have the potential to bioaccumulate |

Mobility

Soil Organic Carbon-Water Partition Coefficient

Not applicable

Water solubility

| <u>Water solubility classification</u> | <u>Water solubility</u> | <u>Water Solubility Temperature</u> |
|--|-------------------------|-------------------------------------|
| Soluble | > 1000 mg/L | 25 °C / 77 °F |

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

Special instructions for disposal

Dispose of material in an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

U.S. DOT

Not regulated

TDG

Not regulated

IATA

Not regulated

IMDG

Not regulated

Note:

No special precautions necessary.

Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods.

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If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories

TSCA Complies
DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS Complies
ENCS Does not comply
IECSC Complies
KECL Complies
PICCS Complies
TCSI Complies
AICS Complies
NZIoC Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name | SARA 313 - Threshold Values % |
|--------------------------------------|-------------------------------|
| Ethylene glycol (CAS #: 107-21-1) | 1.0 |
| Arsine, oxophenyl- (CAS #: 637-03-6) | 1.0 |

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic Health Hazard Yes
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sodium phosphate dibasic 7558-79-4 | 5000 lb | - | - | X |

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| | | | | |
|--------------------------------|---|---|---|---|
| Arsine, oxophenyl- 637-03-6 | - | X | - | - |
|--------------------------------|---|---|---|---|

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

| Chemical name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---------------------------------------|--------------------------|----------------|--|
| Ethylene glycol 107-21-1 | 5000 lb | - | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Sodium phosphate dibasic 7558-79-4 | 5000 lb | - | RQ 5000 lb final RQ RQ 2270 kg final RQ |

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals

| Chemical name | California Proposition 65 |
|-----------------------------------|---------------------------|
| Ethylene glycol (CAS #: 107-21-1) | Developmental |



WARNING: This product can expose you to chemicals including Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm.

For more information, go to <http://www.P65Warnings.ca.gov>

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---------------------------------------|------------|---------------|--------------|
| Ethylene glycol 107-21-1 | X | X | X |
| Sodium phosphate dibasic 7558-79-4 | X | X | X |
| Arsine, oxophenyl- 637-03-6 | X | - | X |

U.S. EPA Label Information

| Chemical name | FIFRA | FDA |
|--------------------------|----------|--|
| Ethylene glycol | 180.0920 | - |
| Sodium phosphate dibasic | 180.0910 | 21 CFR 182.1778, 21 CFR 182.6290, 21 CFR 182.6778, 21 CFR 182.8778 |

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**Special Comments**

None

Additional information

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Global Automotive Declarable Substance List (GADSL)

Not applicable

NFPA and HMIS Classifications

| | | | | |
|-------------|---------------------------|-------------------------|-----------------------------|--|
| NFPA | Health hazards - 2 | Flammability - 0 | Instability - 0 | Physical and Chemical Properties - |
| HMIS | Health hazards - 2 | Flammability - 0 | Physical Hazards - 0 | Personal protection - X - See section 8 for more information |

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH

Immediately Dangerous to Life or Health

ACGIH

ACGIH (American Conference of Governmental Industrial Hygienists)

NDF

no data

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| | | | |
|------|---------------------------------|---------|---|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| MAC | Maximum Allowable Concentration | Ceiling | Ceiling Limit Value |
| X | Listed | Vacated | These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations. |
| SKN* | Skin designation | SKN+ | Skin sensitization |
| RSP+ | Respiratory sensitization | ** | Hazard Designation |
| C | Carcinogen | R | Reproductive toxicant |
| M | mutagen | | |

Prepared By Hach Product Compliance Department

Issue Date 16-Aug-2018

Revision Date 16-Aug-2018

Revision Note None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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End of Safety Data Sheet