PHOS-CHEK® 1% FLUORINE FREE
Safety Data Sheet


Date of issue: 09/13/2019 Revision date: 09/13/2019 Version: 1.0

SECTION 1: Identification

1. Identification

Product form : Mixture

Product name : PHOS-CHEK® 1% FLUORINE FREE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Fire extinguisher

For professional use only

1.3. Details of the manufacturer or supplier of the safety data sheet

Perimeter Solutions LP, Solberg
11520 Brookfield Ave.
Green Bay, WI 54313
T. 1-920-593-9445

Perimeter Solutions
10667 Jersey Blvd.
Rancho Cucamonga CA, 91730
T. 1-800-682-3626

Perimeter Solutions Canada Ltd.,
3060 Airport Rd.,
Kamloops B.C., V2B 7X2
T. 1-250-554-3530

1.4. Emergency telephone number

Emergency number : CHEMTREC 800-424-9300

CANUTEC 613-996-6666 (Transport Only)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

GHS classification

Eye Irrit. 2A

2.2. Label elements

GHS labelling

Hazard pictograms (GHS) : [Image]

Signal word (GHS) : Warning

Hazard statements (GHS) : H319 - Causes serious eye irritation.

Precautionary statements (GHS) : P264 - Wash hands, forearms and face thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable
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3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol monobutyl ether</td>
<td>(CAS-No.) 112-34-5</td>
<td>10 - 30</td>
</tr>
<tr>
<td>1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts</td>
<td>(CAS-No.) 61789-40-0</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Sulfuric acid, mono-C12-14-alkyl esters, compounds with triethanolamine</td>
<td>(CAS-No.) 90583-18-9</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Sodium N-(2-carboxyethyl)-N-(2-ethylhexyl)-beta.-alaninate</td>
<td>(CAS-No.) 94441-92-6</td>
<td>0.5 - 1.5</td>
</tr>
<tr>
<td>Sodium octyl sulfate</td>
<td>(CAS-No.) 142-31-4</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact: If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation persists.

First-aid measures after eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation: May cause irritation to the respiratory tract.

Symptoms/effects after skin contact: May cause skin irritation. Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/effects after ingestion: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: Polyvalent powder extinguishers (ABC powder)

Unsuitable extinguishing media: Tap Water

5.2. Special hazards arising from the substance or mixture

Fire hazard: Products of combustion may include, and are not limited to: oxides of carbon. Organic compounds.

5.3. Advice for firefighters

Protection during firefighting: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment: Stop leak if safe to do so. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment. Do not use sawdust or other combustible material to absorb spilled material
Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections
For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Ensure adequate ventilation. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products.

Hygiene measures: Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep out of the reach of children. Keep the container hermetically sealed. Store in a dry, cool area. Take precautionary measures to prevent the formation of static electricity. Store at temperatures between 0-50° C (32-122° F).

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH TWA (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol monobutyl ether (112-34-5)</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Sodium octyl sulfate (142-31-4)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Sulfuric acid, mono-C12-14-alkyl esters, compounds with triethanolamine (90583-18-9)</td>
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<td>1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivatives, hydroxides, inner salts (61789-40-0)</td>
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<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Ensure good ventilation of the work station.
Hand protection: Wear suitable gloves.
Eye protection: Wear eye/face protection.
Skin and body protection: Wear suitable protective clothing.
Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Avoid release to the environment.
Other information: Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Transparent</td>
</tr>
<tr>
<td>Colour</td>
<td>Yellowish</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>6.5 - 7.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 199.4 °F /93 °C</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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Flammability (solid, gas): Not flammable.
Vapour pressure: 11.99 kPa @ 122 °F/50 °C
Relative vapour density at 20 °C: No data available
Relative density: No data available
Density: 1020 - 1060 kg/m³ @ 68 °F/20 °C
Solubility: Material highly soluble in water.
Partition coefficient n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: 4.5 cP
Explosive limits: No data available
Explosive properties: No data available
Oxidising properties: No data available

9.2. Other information
Refractive index: 1.375

SECTION 10: Stability and reactivity

10.1. Reactivity
No dangerous reactions known under normal conditions of use.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

10.5. Incompatible materials
Strong acids. Strong bases.

10.6. Hazardous decomposition products
May include, and are not limited to: oxides of carbon. Organic compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity (oral): Not classified.
Acute toxicity (dermal): Not classified.
Acute toxicity (inhalation): Not classified.

Sodium octyl sulfate (142-31-4)
LD50 oral rat: 3200 mg/kg
ATE CA (oral): 3200 mg/kg bodyweight

Sulfuric acid, mono-C12-14-alkyl esters, compounds with triethanolamine (90583-18-9)
ATE CA (oral): 500 mg/kg bodyweight

Skin corrosion/irritation: Not classified. pH: 6.5 - 7.5
Serious eye damage/irritation: Causes serious eye irritation. pH: 6.5 - 7.5
Respiratory or skin sensitisation: Not classified.
Germ cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
STOT-single exposure: Not classified.
STOT-repeated exposure: Not classified.
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Aspiration hazard: Not classified.
Symptoms/effects after inhalation: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact: May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Other information: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

| PHOS-CHEK® 1% Fluorine Free | Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| PHOS-CHEK® 1% Fluorine Free | Bioaccumulative potential | Not established. |

| Diethylene glycol monobutyl ether (112-34-5) | BCF fish 1 | (no bioconcentration expected) |

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
Other information: No other effects known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)
In accordance with DOT/TDG
Not regulated

SECTION 15: Regulatory information

15.1. Federal regulations
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

| Sulfuric acid, mono-C12-14-alkyl esters, compounds with triethanolamine | CAS-No. 90583-18-9 |

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories except for:

| Sulfuric acid, mono-C12-14-alkyl esters, compounds with triethanolamine | CAS-No. 90583-18-9 |

15.2. International regulations
No additional information available

15.3. US State regulations
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date: 09/13/2019
Other information: None.
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Prepared by: Nexreg Compliance Inc.
www.Nexreg.com

NFPA health hazard: 2
NFPA fire hazard: 0
NFPA reactivity: 0

Hazard Rating
Health: 2 Moderate Hazard
Flammability: 0 Minimal Hazard
Physical: 0 Minimal Hazard

SDS HazCom 2012 - WHMIS 2015 (NexReg)

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