

**Safety Data Sheet**

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

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**SECTION 1: Identification**

**1.1. Identification**

Product form : Mixture  
Product name : PHOS-CHEK® 3x3 AR-AFFF Freeze Protected

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

Recommended use : Fire extinguishers. For professional users only

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

Perimeter Solutions 10667 Jersey Blvd. Rancho Cucamonga CA, 91730 T 1-800-682-3626	Perimeter Solutions LP, Solberg 1520 Brookfield Ave. Green Bay, WI 54313 T. 1-920-593-9445	Perimeter Solutions Canada Ltd., 3060 Airport Rd., Kamloops B.C., V2B 7X2 T. 1-250-554-3530	Perimeter Solutions, Spain Polígono Industrial de Baiña, parcela 23 33682 Baiña (Mieres) - Asturias - Spain T. +34 985 242 945
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**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**

Acute Tox. 4 (Oral)  
Eye Irrit. 2A

**2.2. Label elements**

**GHS labelling**

Hazard pictograms (GHS) :



GHS07

Signal word (GHS) : Warning  
Hazard statements (GHS) : H302 - Harmful if swallowed.  
H319 - Causes serious eye irritation.  
Precautionary statements (GHS) : P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.  
P330 - Rinse mouth.  
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.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**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

**3.2. Mixtures**

# Phos-Chek 3x3- AR-AFFF Freeze Protected

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Name	Product identifier	%
Ethylene glycol	(CAS-No.) 107-21-1	15 - 40
Diethylene glycol monobutyl ether	(CAS-No.) 112-34-5	7 - 13
Sodium octyl sulfate	(CAS-No.) 142-31-4	0.5 - 1.5

\*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 : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call a POISON CENTER/doctor 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 : 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 : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use water jet.

#### 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 : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

#### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

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### 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.
- Hygiene measures : Wash contaminated clothing before reuse. Wash hands, forearms and face thoroughly after handling.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of the reach of children. Store tightly closed in a dry, cool and well-ventilated place.
- Storage temperature : -4 – 122 °F (-20 - 50 °C)

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Ethylene glycol (107-21-1)		
ACGIH	ACGIH TWA (ppm)	25 ppm (vapor fraction)
ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable particulate matter, aerosol only)
ACGIH	ACGIH STEL (ppm)	50 ppm (vapor fraction)
Diethylene glycol monobutyl ether (112-34-5)		
ACGIH	ACGIH TWA (ppm)	10 ppm (inhalable fraction and vapor)
ACGIH	Remark (ACGIH)	TLV® Basis: Hematologic, liver & kidney eff
Sodium octyl sulfate (142-31-4)		
Not applicable		

#### 8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Hand protection : Wear suitable gloves.
- Eye protection : Wear eye 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

- Physical state : Liquid
- Appearance : Viscous liquid.
- Colour : Amber
- Odour : Characteristic
- Odour threshold : No data available
- pH : 7 – 8
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : > 199.4 °F (93 °C)
- Relative evaporation rate (butylacetate=1) : No data available
- Flammability (solid, gas) : Not flammable.
- Vapour pressure : 10.25 kPa (122 °F / 50 °C)
- Relative vapour density at 20 °C : No data available
- Relative density : No data available
- Density : 1040 – 1080 kg/m<sup>3</sup> (68 °F / 20 °C)

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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	: > 20.5 cSt (104 °F / 40 °C)
Viscosity, dynamic	: 70 cP (68 °F / 20 °C)
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

No additional information available

## 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

Heat. Sunlight. Incompatible materials.

### 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)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.

Phos-Chek 3x3- AR-AFFF Freeze Protected	
LD50 oral rat	1337.58 mg/kg (Calculation method)
LD50 dermal rabbit	>5000 mg/kg (Calculation method)
LC50 inhalation rat	>20 mg/L (4 h) (Calculation method)

Ethylene glycol (107-21-1)	
LD50 oral rat	500 mg/kg ATE

Skin corrosion/irritation	: Not classified. pH: 7 – 8
Serious eye damage/irritation	: Causes serious eye irritation. pH: 7 – 8
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.
Aspiration hazard	: Not classified.

Phos-Chek 3x3- AR-AFFF Freeze Protected	
Viscosity, kinematic (calculated value) (40 °C)	> 20.5 mm <sup>2</sup> /s (104 °F / 40 °C)

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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	: 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.

Ethylene glycol (107-21-1)	
LC50 fish 1	53000 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 crustacean 1	51000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 algae 1	24000 mg/l (Exposure time: 168 h - Species: Selenastrum capricornutum)

Diethylene glycol monobutyl ether (112-34-5)	
LC50 fish 1	1300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)
EC50 crustacean 1	2850 mg/l (Exposure time: 24 h - Species: Daphnia magna)
EC50 algae 1	53 mg/l (Exposure time: 192 h - Species: Microcystis aeruginosa)

### 12.2. Persistence and degradability

Ethylene glycol (107-21-1)	
Biochemical oxygen demand (BOD)	0.47 g O <sub>2</sub> /g
Chemical oxygen demand (COD)	1.29 g O <sub>2</sub> /g
BOD/COD	0.36
Biodegradability concentration	100 mg/L
Period	14 days
% Biodegradable	90%

Diethylene glycol monobutyl ether (112-34-5)	
Biochemical oxygen demand (BOD)	0.25 g O <sub>2</sub> /g
Chemical oxygen demand (COD)	2.08 g O <sub>2</sub> /g
BOD/COD	0.12
Biodegradability concentration	100 mg/L
Period	28 days
% Biodegradable	92%

### 12.3. Bioaccumulative potential

Ethylene glycol (107-21-1)	
BCF fish 1	10
Partition coefficient n-octanol/water (Pow Log)	-1.36
Bioaccumulative potential	Low bioaccumulation potential.

Diethylene glycol monobutyl ether (112-34-5)	
BCF fish 1	0.46
Partition coefficient n-octanol/water (Pow Log)	0.56
Bioaccumulative potential	Low bioaccumulation potential.

### 12.4. Mobility in soil

Ethylene glycol (107-21-1)	
Partition coefficient n-octanol/water (Log Koc)	0
Surface tension	4.989E-2 N/m (77 °F / 25 °C)
Absorption/desorption	Very high
Volatility	Dry soil: No Moist soil: No
Henry's law	1.327E-1 Pa·m <sup>3</sup> /mol

Diethylene glycol monobutyl ether (112-34-5)	
Partition coefficient n-octanol/water (Log Koc)	48

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Diethylene glycol monobutyl ether (112-34-5)	
Surface tension	3.395E-2 N/m (77 °F / 25 °C)
Absorption/desorption	Very high
Volatility	Dry soil: No Moist soil: No
Henry's law	7.2E-9 Pa·m <sup>3</sup> /mol

### 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 of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## SECTION 14: Transport information

### Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

In accordance with DOT/TDG

Not determined

## 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:

SPE 93279	CAS-No. RR-11283-4
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	CAS-No. 55965-84-9

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:

SPE 93279	CAS-No. RR-11283-4
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### 15.2. International regulations

No additional information available

### 15.3. US State regulations

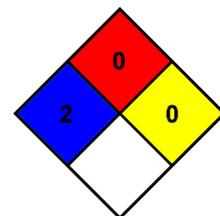
**⚠ WARNING:** This product can expose you to Ethanol, 2,2'-iminobis-, which is known to the State of California to cause cancer, and Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## SECTION 16: Other information

Revision date : 04/22/2020  
Other information : None.  
Prepared by : Nexreg Compliance Inc.  
[www.Nexreg.com](http://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

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SDS HazCom 2012 - WHMIS 2015 (NexReg)

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