



**Be Right™**

# SAFETY DATA SHEET

Issue Date 04-Aug-2016

Revision Date 27-Sep-2016

Version 5

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## 1. IDENTIFICATION

### Product identifier

**Product Name** PhosVer® 3 Phosphate Reagent

### Other means of identification

**Product Code(s)** 212599

**Safety data sheet number** M00035

### Recommended use of the chemical and restrictions on use

**Recommended Use** Laboratory Use. Phosphate determination.

**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  
(970) 669-3050

### Emergency telephone number

(303) 623-5716 - 24 Hour Service (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)

Serious eye damage/eye irritation

Category 2A

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Signal word** - Warning



### Hazard statements

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H319 - Causes serious eye irritation

**Precautionary statements**

P264 - Wash face, hands and any exposed skin 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

**Other Information**

May be harmful if swallowed

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

**Chemical Family** Mixture.

Percent ranges are used where confidential product information is applicable.

Chemical Name	CAS No	Percent Range	HMRIC #
Potassium pyrosulfate	7790-62-7	50 - 100%	-
Sodium molybdate	7631-95-0	1 - 5%	-
Tetrasodium EDTA	64-02-8	0.1 - 1%	-
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer	28300-74-5	0.1 - 1%	-

## 4. FIRST AID MEASURES

### Description of first aid measures

<b>General advice</b>	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, call a physician.
<b>Skin contact</b>	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If symptoms persist, call a physician.
<b>Inhalation</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.
<b>Ingestion</b>	IF SWALLOWED: Rinse Mouth. If symptoms persist, call a physician.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	See Section 11: TOXICOLOGICAL INFORMATION.
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### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

### 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.

### Flammable properties

Can burn in fire, releasing toxic vapors.

### Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

### Hazardous combustion products

Sulfur oxides. Carbon monoxide, Carbon dioxide. Sodium monoxide. Potassium oxides.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

<b>U.S. Notice</b>	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.
<b>EC Notice</b>	Only persons properly qualified to respond to an emergency involving hazardous

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substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

#### WHMIS Notice

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate affected area. Use personal protective equipment as required.

**For emergency responders** Use personal protection recommended in Section 8.

#### Environmental precautions

**Environmental precautions** Avoid release to the environment. 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. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Dispose of in accordance with local, state and federal regulations or laws.

**Emergency Response Guide Number** Not applicable

### 7. HANDLING AND STORAGE

#### Precautions for safe handling

**Advice on safe handling** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Flammability class** Not applicable

**Incompatible materials** dyes. Iron. Copper. Incompatible with strong acids and bases. Incompatible with oxidizing agents.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium molybdate 1 - 5%	TWA: 0.5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 5 mg/m <sup>3</sup>	IDLH: 1000 mg/m <sup>3</sup> Mo
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4- )-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer 0.1 - 1%	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup> (vacated) TWA: 0.5 mg/m <sup>3</sup>	IDLH: 50 mg/m <sup>3</sup> Sb TWA: 0.5 mg/m <sup>3</sup> Sb

Chemical Name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL	New Foundland & Labrador OEL
Sodium molybdate 1 - 5%	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer 0.1 - 1%	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>

Chemical Name	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL	Ontario TWA	Prince Edward Island OEL
Sodium molybdate 1 - 5%	TWA: 0.5 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer 0.1 - 1%	TWA: 0.5 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>

Chemical Name	Quebec OEL	Saskatchewan OEL	Yukon OEL
Sodium molybdate 1 - 5%	TWA: 5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer 0.1 - 1%	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>	STEL: 0.75 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Legend** See section 16 for terms and abbreviations

#### **Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems

#### **Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear tight sealing safety goggles and/or face protection shield.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off all contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. Regular cleaning of equipment, work area and clothing is recommended.

**Environmental exposure controls**  
Avoid creating dust.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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**Information on basic physical and chemical properties**

**Physical state** Solid

**Gas Under Pressure** Not classified according to GHS criteria

**Appearance** powder

**Color** white

**Odor** Odorless

**Odor threshold** No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Molecular weight</b>	No data available	
<b>pH</b>	No data available	
<b>Melting point/freezing point</b>	105 °C / 221 °F	
<b>Boiling point / boiling range</b>	No data available	
<b>Evaporation rate</b>	Not applicable	
<b>Vapor pressure</b>	Not applicable	
<b>Vapor density (air = 1)</b>	Not applicable	
<b>Specific gravity (water = 1 / air = 1)</b>	2.22	
<b>Partition Coefficient (n-octanol/water)</b>	No data available	
<b>Soil Organic Carbon-Water Partition Coefficient</b>	No data available	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>Dynamic viscosity</b>	Not applicable	
<b>Kinematic viscosity</b>	Not applicable	

**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** Not classified as corrosive to metal according to GHS criteria

**Steel Corrosion Rate** Not applicable

**Aluminum Corrosion Rate** Not applicable

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<b>Volatile Organic Compounds (VOC) Content</b>	Not applicable.
<b>Bulk density</b>	No data available
<b>Explosive properties</b>	Not classified according to GHS criteria.
<b>Explosion data</b>	Can burn in fire, releasing toxic vapors.
<b>Upper explosion limit</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Flammable properties</b>	Can burn in fire, releasing toxic vapors.
<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	No data available
<b>Lower flammability limit:</b>	No data available
<b>Flash point</b>	Not applicable
<b>Method</b>	No information available
<b>Oxidizing properties</b>	Not classified according to GHS criteria.
<b>Reactivity properties</b>	Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

## 10. STABILITY AND REACTIVITY

### Reactivity properties

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria

### Chemical stability

Stable under recommended storage conditions.

### Special dangers of the product

None reported

### Possibility of Hazardous Reactions

None under normal processing.

<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
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### Conditions to avoid

Extreme temperatures. Exposure to air or moisture over prolonged periods.

### Incompatible materials

dyes. Iron. Copper. Incompatible with strong acids and bases. Incompatible with oxidizing agents.

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

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**Explosive properties**

Not classified according to GHS criteria. Can burn in fire, releasing toxic vapors.

**Upper explosion limit** No data available

**Lower explosion limit** No data available

**Autoignition temperature**

No data available

**Sensitivity to Static Discharge**

None reported

**Sensitivity to Mechanical Impact**

None reported

## 11. TOXICOLOGICAL INFORMATION

**NIOSH (RTECS) Number** None reported

**Information on Likely Routes of Exposure**

<b>Product Information</b>	Causes serious eye irritation. May be harmful if swallowed.
<b>Inhalation</b>	No known effect based on information supplied.
<b>Eye contact</b>	Contact with eyes may cause irritation. Severely irritating to eyes.
<b>Skin contact</b>	No known effect based on information supplied.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Aggravated Medical Conditions</b>	Eye disorders.
<b>Toxicologically synergistic products</b>	None known.
<b>Toxicokinetics, metabolism and distribution</b>	See ingredients information below.

<b>Chemical Name</b>	<b>Toxicokinetics, metabolism and distribution</b>
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer (0.1 - 1%) CAS#: 28300-74-5	Antimony compounds can cause dermatitis, conjunctivitis, nasal-septum ulceration through direct contact or by inhalation of dust or fumes. Antimony is also connected with kidney and liver degeneration and adverse reproductive effects.

**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

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

<b>ATEmix (oral)</b>	2,775.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	128.40 mg/L



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### Ingredient Acute Toxicity Data

#### **Oral Exposure Route**

<b>Chemical Name</b>	<b>Endpoint type</b>	<b>Reported dose</b>	<b>Exposure time</b>	<b>Toxicological effects</b>	<b>Key literature references and sources for data</b>
Potassium pyrosulfate (50 - 100%) CAS#: 7790-62-7	Rat LD <sub>50</sub>	2340 mg/kg	None reported	None reported	Vendor SDS
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	Rat LD <sub>50</sub>	4000 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)
Tetrasodium EDTA (0.1 - 1%) CAS#: 64-02-8	Rat LD <sub>50</sub>	1658 mg/kg	None reported	None reported	ERMA (New Zealand's Environmental Risk Management Authority)
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer (0.1 - 1%) CAS#: 28300-74-5	Rat LD <sub>50</sub>	115 mg/kg	None reported	None reported	Vendor SDS
<b>Chemical Name</b>	<b>Endpoint type</b>	<b>Reported dose</b>	<b>Exposure time</b>	<b>Toxicological effects</b>	<b>Key literature references and sources for data</b>
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	Guinea pig LD <sub>50</sub>	310 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer (0.1 - 1%) CAS#: 28300-74-5	Mouse LD <sub>50</sub>	600 mg/kg	None reported	None reported	HSDB (Hazardous Substances Data Bank)

#### **Dermal Exposure Route**

<b>Chemical Name</b>	<b>Endpoint type</b>	<b>Reported dose</b>	<b>Exposure time</b>	<b>Toxicological effects</b>	<b>Key literature references and sources for data</b>
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	Rat LD <sub>50</sub>	> 2000 mg/kg	None reported	None reported	Vendor SDS

#### **Inhalation (Dust/Mist) Exposure Route**

<b>Chemical Name</b>	<b>Endpoint type</b>	<b>Reported dose</b>	<b>Exposure time</b>	<b>Toxicological effects</b>	<b>Key literature references and sources for data</b>
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	Rat LC <sub>50</sub>	2.08 mg/L	4 hours	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

#### **Inhalation (Vapor) Exposure Route**

No data available

#### **Inhalation (Gas) Exposure Route**

No data available

#### **Product Skin Corrosion/Irritation Data**

No data available.

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<u>Test method</u>	<u>Species</u>	<u>Results</u>	<u>Key literature references and sources for data</u>
United States Department of Transportation (DOT) Skin Corrosion Test	Rabbit	Not corrosive or irritating to skin	Outside testing

#### **Ingredient Skin Corrosion/Irritation Data**

Toxicological data for ingredients is not indicative of likely harm.

<u>Chemical Name</u>	<u>Test method</u>	<u>Species</u>	<u>Reported dose</u>	<u>Exposure time</u>	<u>Results</u>	<u>Key literature references and sources for data</u>
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	Standard Draize Test	Rabbit	500 mg	4 hours	Not corrosive or irritating to skin	ECHA (The European Chemicals Agency)

#### **Product Serious Eye Damage/Eye Irritation Data**

No data available.

#### **Ingredient Eye Damage/Eye Irritation Data**

<u>Chemical Name</u>	<u>Test method</u>	<u>Species</u>	<u>Reported dose</u>	<u>Exposure time</u>	<u>Results</u>	<u>Key literature references and sources for data</u>
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	Patch test	None reported	200 mg	None reported	Eye irritant	ChemADVISOR
Antimonate(2-), bis[.mu.-(2,3-dihydrox ybutanedioato(4-)-O1 ,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer (0.1 - 1%) CAS#: 28300-74-5	None reported	Rabbit	100 mg	24 hours	Eye irritant	No information available

#### **Sensitization Information**

##### **Product Sensitization Data**

**Skin Sensitization Exposure Route**

No data available.

**Respiratory Sensitization Exposure Route**

No data available.

##### **Ingredient Sensitization Data**

##### **Skin Sensitization Exposure Route**

Toxicological data for ingredients is not indicative of likely harm.

<u>Chemical Name</u>	<u>Test method</u>	<u>Species</u>	<u>Results</u>	<u>Key literature references and sources for data</u>
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	OECD Test No. 406: Skin Sensitization	Guinea pig	Not confirmed to be a skin sensitizer	Vendor SDS

**Respiratory Sensitization Exposure Route**

No data available.

#### **Chronic Toxicity Information**

##### **Product Repeat Dose Toxicity Data**

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**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 Repeat Dose 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

Chemical Name	CAS No	ACGIH	IARC	NTP	OSHA
Potassium pyrosulfate	7790-62-7	-	-	-	-
Sodium molybdate	7631-95-0	A3	-	-	-
Tetrasodium EDTA	64-02-8	-	-	-	-
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer	28300-74-5	-	-	-	-

**Legend**

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	A3 - Animal Carcinogen
<b>IARC (International Agency for Research on Cancer)</b>	Does not apply
<b>NTP (National Toxicology Program)</b>	Does not apply
<b>OSHA (Occupational Safety and Health Administration of the US Department of Labor)</b>	X - Present

**Product Carcinogenicity Data** No data available

**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**

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

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**Inhalation (Vapor) Exposure Route**

No data available

**Inhalation (Gas) Exposure Route**

No data available

**Product Germ Cell Mutagenicity *invitro* Data**

No data available.

**Ingredient Germ Cell Mutagenicity *invitro* Data**

Chemical Name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	Phage inhibition capacity	Escherichia coli	16 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
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	Sex chromosome loss and nondisjunction	Saccharomyces cerevisiae	80 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

**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**

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

**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**

Toxicological data for ingredients is not indicative of likely harm.

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**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

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Based on the classification principles, not classified as hazardous to the environment.

### Product Ecological Data

#### Aquatic toxicity

**Fish** No data available  
**Crustacea** No data available  
**Algae** No data available

#### Terrestrial toxicity

**Soil** No data available  
**Vertebrates** No data available  
**Invertebrates** No data available

### Ingredient Ecological Data

#### Aquatic toxicity

##### Fish

Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium pyrosulfate (50 - 100%) CAS#: 7790-62-7	96 hours	<i>Oncorhynchus mykiss</i>	LC <sub>50</sub>	420 mg/L	ERMA (New Zealand's Environmental Risk Management Authority)
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	96 hours	<i>Oncorhynchus mykiss</i>	LC <sub>50</sub>	800 mg/L	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer (0.1 - 1%) CAS#: 28300-74-5	96 hours	None reported	LC <sub>50</sub>	12.5 mg/L	Vendor SDS
Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium molybdate (1 - 5%) CAS#: 7631-95-0	96 hours	None reported	LC <sub>50</sub>	1320 mg/L	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

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#### Crustacea

Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium pyrosulfate (50 - 100%) CAS#: 7790-62-7	48 Hours	<i>Daphnia magna</i>	EC <sub>50</sub>	140 mg/L	ERMA (New Zealand's Environmental Risk Management Authority)

#### Algae

#### Terrestrial toxicity

**Soil** No data available

**Vertebrates** No data available

**Invertebrates** No data available

#### Other Information

#### Canadian Environmental Protection Act (CEPA) - Domestic Substances List (DSL): Environmentally Hazardous Substances Categorizations

Chemical Name	CAS No	Category	Persistent	Bioaccumulation	Inherently Toxic to Aquatic Organisms
Potassium pyrosulfate	7790-62-7	-	-	-	-
Sodium molybdate	7631-95-0	-	-	-	-
Tetrasodium EDTA	64-02-8	-	-	-	-
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer	28300-74-5	-	-	-	-

#### Persistence and degradability

None known.

#### Product Biodegradability Data

If available, see ingredient data below.

#### Ingredient Biodegradability Data

Test data reported below

#### Bioaccumulation

None known.

#### Product Bioaccumulation Data

No data available.

#### Ingredient Bioaccumulation Data

No data available

#### Additional information

#### Product Information

No data available

#### Partition Coefficient (n-octanol/water)

No data available

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### Ingredient Information

#### Mobility

Mobility in soil: Moderate to high mobility. If available, see ingredient data below.

**Product Information** No data available

**Soil Organic Carbon-Water Partition Coefficient** No data available

### Ingredient Information

#### Additional information

#### Water solubility

#### Product Information

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

### Ingredient Information

<u>Chemical Name</u>	<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water solubility temperature °C</u>	<u>Water solubility temperature °F</u>
Potassium pyrosulfate CAS#: 7790-62-7	Completely soluble	25000 mg/L	20 °C	68 °F
Sodium molybdate CAS#: 7631-95-0	Completely soluble	840000 mg/L	20 °C	68 °F
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3, O4)]di-, dipotassium, trihydrate, stereoisomer CAS#: 28300-74-5	Completely soluble	80000 mg/L	20 °C	68 °F

#### Other adverse effects

Contains a substance with an endocrine-disrupting potential.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Disposal of wastes** Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**Contaminated packaging** Do not reuse container.

**US EPA Waste Number** D002

**Special instructions for disposal** Work in an approved fume hood. Dilute material with excess water making a weaker than 5% solution. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. If permitted by regulation. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system. Check with national, local municipal and state authorities and waste contractors for pertinent local information on the disposal of this article.

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#### 14. TRANSPORT INFORMATION

**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. 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** Complies  
**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 does not contain any 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 %
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer (CAS #: 28300-74-5)	1.0

##### **SARA 311/312 Hazard Categories**

**Acute health hazard**

Yes



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<b>Chronic Health Hazard</b>	Yes
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	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
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer 28300-74-5	-	X	-	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)
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer 28300-74-5	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

#### **US State Regulations**

##### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

##### **U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Antimonate(2-), bis[.mu.-(2,3-dihydroxybutanedioato(4-)-O1,O2:O3,O4)]di-, dipotassium, trihydrate, stereoisomer 28300-74-5	X	X	X

##### **U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

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

##### **NFPA and HMIS Classifications**

NFPA	Health hazards - 2	Flammability - 0	Instability - 0	Physical and Chemical Properties -
HMIS	Health hazards - 0	Flammability - 0	Physical hazards - 0	Personal protection - X

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				- See section 8 for more information
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**Key or legend to abbreviations and acronyms used in the safety data sheet**

NIOSH IDLH	<i>Immediately Dangerous to Life or Health</i>
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
NDF	<i>no data</i>

**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** 04-Aug-2016

**Revision Date** 27-Sep-2016

**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**