

# Material Safety Data Sheet

## Section 1. Chemical Product and Company Identification

<b>Product Name</b>	<b>BPC 60002</b>	<b>Code</b>	BPC60002
<b>Supplier</b>	Baker Petrolite A Baker Hughes Company 12645 W. Airport Blvd. (77478) P.O. Box 5050 Sugar Land, TX 77487-5050 For Product Information/MSDSs Call: 800-231-3606 (8:00 a.m. - 5:00 p.m. cst, Monday - Friday) 281-276-5400	<b>Version</b>	2.0
<b>Material Uses</b>	Boiler water treatment. Scale Inhibitor	<b>Effective Date</b>	5/10/2005
<b>24 Hour Emergency Numbers</b>	CHEMTREC 800-424-9300 (U.S. 24 hour) Baker Petrolite 800-231-3606 (001)281-276-5400 CANUTEC 613-996-6666 (Canada 24 hours) CHEMTREC Int'l 01-703-527-3887 (International 24 hour)	<b>Print Date</b>	5/10/2005
National Fire Protection Association (U.S.A.)			

## Section 2. Hazards Identification

<b>Physical State and Appearance</b>	State: Liquid., Color: Colorless to yellow., Odor: Characteristic.
<b>CERCLA Reportable Quantity</b>	Not applicable.
<b>Hazard Summary</b>	DANGER. May be corrosive to eyes and respiratory tract.
<b>Routes of Exposure</b>	Skin (Contact), Eyes, Inhalation.
<b>Potential Acute Health Effects</b>	<p><i>Eyes</i> May be corrosive to the eyes. May cause eye burns and permanent eye injury.</p> <p><i>Skin</i> May be irritating to skin.</p> <p><i>Inhalation</i> May be irritating to lungs.</p> <p><i>Ingestion</i> Not considered a likely route of exposure, however, may be corrosive if swallowed.</p>
<b>Medical Conditions aggravated by Exposure</b>	Exposure to this product may aggravate medical conditions involving the following: respiratory tract, skin/epithelium, eyes, bones.
<b>See Toxicological Information (section 11)</b>	
<b>Additional Hazard Identification Remarks</b>	This product was corrosive to steel and aluminum using a Department of Transportation (DOT) acceptable method.

**Section 3. Composition and Information on Ingredients**

Name	CAS #	% by Weight
Organic phosphonate	2809-21-4	30 - 60
Phosphonic acid	13598-36-2	1 - 5

See Section 8 for information on permissible exposure limits and threshold limit values.

**Section 4. First Aid Measures**

Eye Contact	Immediately flush the eye(s) continuously with lukewarm, gently flowing water for at least 20-60 minutes while holding the eyelid(s) open. Get medical attention immediately.
Skin Contact	Remove and launder or clean contaminated clothing and shoes. Wash with soap and water for at least 15 minutes or until no evidence of material remains. Get medical attention if irritation occurs.
Inhalation	Remove to fresh air. Oxygen may be administered if breathing is difficult. If not breathing, administer artificial respiration and seek medical attention. Get medical attention if symptoms appear.
Ingestion	Get medical attention immediately. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Wash out mouth with water if person is conscious. Never induce vomiting or give anything by mouth to a victim who is unconscious or having convulsions.
Notes to Physician	Not available.
Additional First Aid Remarks	Not available.

**Section 5. Fire Fighting Measures**

Flammability of the Product	Not regulated as flammable or combustible.
OSHA Flammability Class	IIIB
Products of Combustion	These products are carbon oxides (CO, CO <sub>2</sub> ) Oxides of phosphorous. Phosphine.
Fire Hazards in Presence of Various Substances	Open Flames/Sparks/Static. Heat.
Fire Fighting Media and Instructions	In case of fire, use foam, dry chemicals, or CO <sub>2</sub> fire extinguishers. Evacuate area and fight fire from a safe distance. Water spray may be used to keep fire-exposed containers cool. Keep water run off out of sewers and public waterways.
Protective Clothing (Fire)	Do not enter fire area without proper personal protective equipment, including NIOSH approved self-contained breathing apparatus.
Special Remarks on Fire Hazards	Material is neither flammable nor combustible. Avoid prolonged heating resulting in evaporation of all water content; hazardous decomposition products may be produced. Thermal decomposition products may include carbon monoxide, carbon dioxide, and/or other possibly toxic vapors.

**Section 6. Accidental Release Measures**

**Spill** Put on appropriate personal protective equipment. Keep personnel removed and upwind of spill. Shut off all ignition sources; no flares, smoking, or flames in hazard area. Approach release from upwind. Shut off leak if it can be done safely. Contain spilled material. Keep out of waterways. Dike large spills and use a non-sparking or explosion proof means to transfer material to an appropriate container for disposal. For small spills add absorbent (soil may be used in absence of other suitable materials scoop up material and place in a sealed, liquid-proof container. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Other Statements** Not applicable.

**Additional Accidental Release Measures Remarks** Neutralize acids by applying basic substances (soda ash or lime) or use an acid spill kit.

**Section 7. Handling and Storage**

**Handling and Storage** Put on appropriate personal protective equipment. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Use only with adequate ventilation. Protect from ignition. Store in a dry, cool and well ventilated area. Keep away from incompatibles. Keep container tightly closed and dry.

**Additional Handling and Storage Remarks** Not available.

**Section 8. Exposure Controls/Personal Protection**

**Exposure Limits** Organic phosphonate Not available.

Phosphonic acid Not available.

**Additional Information on Exposure Limits** Not available.

**Engineering Controls** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors or particles below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection**

Personal Protective Equipment recommendations are based on anticipated known manufacturing and use conditions. These conditions are expected to result in only incidental exposure. A thorough review of the job tasks and conditions by a safety professional is recommended, however, to determine the level of personal protective equipment appropriate for these job tasks and conditions.

*Eyes* Chemical safety goggles. Use full face shield if splashes could occur.

*Body Wear* long sleeves and chemical resistant apron to prevent repeated or prolonged skin contact.

*Respiratory* Respirator use is not expected to be necessary under normal conditions of use. In poorly ventilated areas or in emergency situations, use NIOSH approved full face respirator.

*Hands* Chemical resistant gloves. Nitrile or Neoprene gloves.

*Feet* Chemical resistant boots or overshoes.

*Other information* Not available.

**Additional Exposure Control Remarks** Not available.

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**Section 9. Typical Physical and Chemical Properties**

Physical State and Appearance	Liquid.	Odor	Characteristic.
pH	1.9 - 2.1 (1% in water.)	Color	Colorless to yellow.
Specific gravity	1.447 - 1.459 @ 16°C (60°F)		
Density	12.05 - 12.15 lbs/gal @ 16°C (60°F)		
Flash Points	Not applicable.		
Flammable Limits	L.E.L. Not available. U.E.L. Not available.		
Autoignition Temperature	Not available.		
Initial Boiling Point	Not available.		
Boiling Point	Not available.		
Vapor Density	Not Available or Not Applicable for Solids.		
Vapor Pressure	Not Available or Not Applicable for Solids.		
Evaporation Rate	Not Available or Not Applicable for Solids.		
VOC	Not available.		
Viscosity	Not available.		
Pour Point	Not available.		
Solubility (Water)	Miscible		
Physical Chemical Comments	Not available.		

**Section 10. Stability and Reactivity**

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Oxidizing material. Alkali.
Hazardous Decomposition Products	Not applicable.
Hazardous Polymerization	Hazardous polymerization is not expected to occur.
Special Stability & Reactivity Remarks	Not available.

**Section 11. Toxicological Information****Component Toxicological Information****Acute Animal Toxicity**

Organic phosphonate

ORAL (LD50): Acute: 1800 mg/kg [Mouse].

Phosphonic acid

ORAL (LD50): Acute: 1700 mg/kg [Mouse]. 1895 mg/kg [Rat].

**Chronic Toxicity Data**

1) Organic phosphonate

Reproductive effects in rats have been reported, but all exposure routes were of the non-occupational type. An intraperitoneal dose of phosphonic acid, (1-hydroxyethylidene)di- at 200 mg/kg in female rats on day seven of pregnancy produced fetotoxicity, except death, e.g. stunted growth of the fetus. A subcutaneous dose of 200 mg/kg given to female rats on days 11-17 of pregnancy, resulted in developmental abnormalities, and stunted growth of the fetus (RTECS).

2) Phosphonic acid

Phosphorous acid is a component of this product. Chronic inhalation of phosphorus vapors can produce a chronic chemical bronchitis (Gosselin et al, 1984).

**Product Toxicological Information**

**Acute Animal Toxicity** ORAL (LD50): Acute: 2400 mg/kg [Rat]. DERMAL (LD50): Acute: 7940 mg/kg [Rabbit].

**Target Organs** respiratory tract, skin/epithelium, eyes, bones.

**Other Adverse Effects** Not available.

**Section 12. Ecological Information**

Ecotoxicity	BPC 60002	Rainbow trout (LC50)	96 hour(s)	368 mg/l
		Bluegill sunfish (LC50)	96 hour(s)	868 mg/l
		Daphnia magna (EC50)	48 hour(s)	527 mg/l
		Algae. (EC50)	96 hour(s)	7.2 mg/l

**BOD5 and COD** Not available.

**Biodegradable/OECD** Not available.

**Toxicity of the Products of Biodegradation** Not available.

**Special Remarks** Not available.


**Section 13. Disposal Considerations**

Responsibility for proper waste disposal rests with the generator of the waste. Dispose of any waste material in accordance with all applicable federal, state and local regulations. Note that these regulations may also apply to empty containers, liners and rinsate. Processing, use, dilution or contamination of this product may cause its physical and chemical properties to change.

**Additional Waste Remarks** Not available.

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**Section 14. Transport Information**

DOT Classification	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains: Phosphonic acid), 8, UN3265, III	
DOT Reportable Quantity	Not applicable.	
Marine Pollutant	Not applicable.	
Additional DOT Information	Not available.	
Emergency Response Guide Page Number	153	

**Section 15. Regulatory Information**

HCS Classification	Corrosive.	
U.S. Federal Regulations	<p><b>Environmental Regulations</b></p> <p>Extremely Hazardous Substances: Not applicable to any components in this product.  SARA 302/304 Emergency Planning and Notification substances: Not applicable to any components in this product.  Hazardous Substances (CERCLA 302): Not applicable to any components in this product.  SARA 311/312 MSDS distribution - chemical inventory - hazard identification: immediate health hazard;  Clean Water Act (CWA) 307 Priority Pollutants: Not applicable to any components in this product.  Clean Water Act (CWA) 311 Hazardous Substances: Not applicable to any components in this product.  Clean Air Act (CAA) 112(r) Accidental Release Prevention Substances: Not applicable to any components in this product.</p>	
Threshold Planning Quantity (TPQ)	Not applicable.	
TSCA Inventory Status	<p>All components are included or are exempted from listing on the US Toxic Substances Control Act Inventory.</p> <p>This product does not contain any components that are subject to the reporting requirements of TSCA Section 12(b) if exported from the United States.</p>	
State Regulations	State specific information is available upon request from Baker Petrolite.	
International Regulations	<p><b>Canada</b></p> <p>All components are compliant with or are exempted from listing on the Canadian Domestic Substance List.</p> <p><b>WHMIS (Canada)</b> D-2B, E</p> <p><b>European Union</b></p> <p>All components are included or are exempted from listing on the European Inventory of Existing Commercial Chemical Substances or the European List of Notified Chemical Substances.</p> <p>International inventory status information is available upon request from Baker Petrolite for the following countries: Australia, China, Korea (TCCL), Philippines (RA6969), or Japan.</p>	

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Other Regulatory Information      No further regulatory information is available.

**Section 16. Other Information**

Other Special      2670  
Considerations      05/10/05 - Changes to Sections 1, 2, 3, 5, 6, 8, 9, 11, 12, 14 and 15.

**In April, 2005, a number of format changes were made. The most notable of these were switching Sections 2 and 3, moving the exposure limits to Section 8, and moving the flash point from Section 5 to Section 9.**

**Baker Petrolite Disclaimer**

*NOTE: The information on this MSDS is based on data which is considered to be accurate. Baker Petrolite, however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.*

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