

# **Material Safety Data Sheet**

| <b>Product Name</b>             | BPC 68970  | Code                  | BPC68970  |
|---------------------------------|--|-----------------------|-----------|
| Supplier                        | 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  | Version               | 4.0       |
| Material Uses                   | Microbiocide.  | <b>Effective Date</b> | 4/18/2006 |
| 24 Hour<br>Emergency<br>Numbers | 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)  | Print Date            | 4/18/2006 |
|                                 | National Fire Protection Association (U.S.A.)  Health  The protection of the protect |                       |           |

|   | · ·  |  |  |  |
|---|--|--|--|--|
| Section 2. Hazards Identification           |  |  |  |  |
| Physical State and<br>Appearance            | State: Clear. Liquid., Color: Colorless., Odor: Strong Fruity. Medicinal   |  |  |  |
| CERCLA Reportable<br>Quantity               | Not applicable.  |  |  |  |
| Hazard Summary                              | DANGER. May cause chronic effects. May be corrosive to eyes, skin and respiratory tract. May be toxic by skin absorption. May cause skin sensitization (allergic reaction).  |  |  |  |
| Routes of Exposure                          | Skin (Permeator), Skin (Contact), Eyes, Inhalation.  |  |  |  |
| Potential acute health effects              |  |  |  |  |
| Eyes  | s May be corrosive to the eyes. May cause eye burns and permanent eye injury.  |  |  |  |
| Skii  | Skin May be corrosive. Skin contact may produce burns. Skin sensitizer. May cause allergic skin reactions with repeated exposure. May be toxic if absorbed through the skin.   |  |  |  |
| Inhalation                                  | n May be severely irritating to the lungs.   |  |  |  |
| Ingestion                                   | n Not considered a likely route of exposure, however, may be corrosive if swallowed.   |  |  |  |
| Medical Conditions aggravated by Exposure   | Exposure to this product may aggravate medical conditions involving the following: respiratory tract, skin/epithelium, eyes.   |  |  |  |
| See Toxicological Information (section 11)  |  |  |  |  |
| Additional Hazard<br>Identification Remarks | Glutaraldehyde may stain skin and nails to brown or golden brown color. May be harmful if ingested. This product may be aspirated into the lungs during swallowing or vomiting of swallowed material. Aspiration into the lungs may produce chemical pneumonitis, pulmonary edema, and hemorrhaging. |  |  |  |

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| Section 3. Composition and Information on Ingredients                                    |  |  |  |  |
|--|--|--|--|--|
| Name CAS # % by Weight   |  |  |  |  |
| Glutaraldehyde 111-30-8 30 - 60  |  |  |  |  |
| See Section 8 for information on permissible exposure limits and threshold limit values. |  |  |  |  |

| Section 4. First Air            | d Measures   |  |
|---------------------------------|--|--|
| Eye Contact                     | Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Do not remove contact lenses, if worn. Obtain medical attention without delay, preferably from an ophthalmologist.                                      |  |
| Skin Contact                    | Remove contaminated clothing and shoes immediately. Wash affected area with soap and mild detergent and large amounts of lukewarm, gently flowing water until no evidence of chemical remains (for at least 20-60 minutes). 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<br>Remarks | If ingested, do not give anything to drink since this may increase the absorption of the glutaraldehyde. If product is ingested and vomiting occurs naturally, have person lean forward to reduce the risk of aspiration into the lungs.                                       |  |

| Section 5. Fire Fig.                                 | 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, CO2).  |  |  |
| Fire Hazards in<br>Presence of Various<br>Substances | Open Flames/Sparks/Static. Heat.   |  |  |
| Fire Fighting Media and Instructions                 | In case of fire, use foam, dry chemicals, or CO2 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                      | Not available.   |  |  |

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#### 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

If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-

Additional Accidental Release Measures Remarks

Not available.

| 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** 

Glutaraldehyde

ACGIH (United States).

CEIL: 0.05 ppm

OSHA PEL 1989 (United States).

CEIL: 0.2 ppm

Additional Information on Exposure Limits

The OSHA Exposure Limit for glutaraldehyde has been revoked. The OSHA permissible exposure levels shown above are the OSHA 1989 levels or from subsequent OSHA regulatory actions. Although the 1989 levels have been vacated the 11th Circuit Court of Appeals, Baker Petrolite Corporation recommends that these lower exposure levels be observed as reasonable worker protection.

**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, emergency situations or if exposure levels are exceeded, use NIOSH approved full face respirator.

Hands Chemical resistant gloves. Butyl rubber gloves. Nitrile gloves.

Feet Chemical resistant boots or overshoes.

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|-------------------------------------|------------------|-----|---------|
| Other information                   | n Not available. |     |         |
| Additional Exposure Control Remarks | Not available.   |     |         |

| Section 9. Physica            | al and Chemical Properties                  |                |                          |  |
|-------------------------------|---|----------------|--------------------------|--|
| Physical State and Appearance | Clear. Liquid.                              | Odor           | Strong Fruity. Medicinal |  |
| pH                            | 3.1 - 4.5 (Neat-without dilution.)          | Color          | Colorless.               |  |
| Specific gravity              | 1.113 - 1.125 @ 16°C (60°F)                 |                |                          |  |
| Density                       | 9.27 - 9.37 lbs/gal @ 16°C (60°F)           |                |                          |  |
| Flash Points                  | Closed cup: >100°C (212°F). (Estimated)     |                |                          |  |
| Flammable Limits              | L.E.L. Not available. U.E.L. Not available. |                |                          |  |
| Autoignition<br>Temperature   | Not available.                              | Not available. |                          |  |
| <b>Initial Boiling Point</b>  | Not available.                              |                |                          |  |
| <b>Boiling Point</b>          | 101°C (213°F)                               |                |                          |  |
| Vapor Density                 | 1 (Air = 1)                                 |                |                          |  |
| Vapor Pressure                | 14.7 - mm Hg @ 20°C (68°F)                  |                |                          |  |
| <b>Evaporation Rate</b>       | 1 (compared with Butyl acetate).            |                |                          |  |
| VOC                           | Not available.                              |                |                          |  |
| Viscosity                     | 13 - 14 cP @ 20°C (68°F)                    |                |                          |  |
| Pour Point                    | -17°C (1.4°F) Freezing Point                | ·              |                          |  |
| Solubility (Water)            | Soluble                                     | -              |                          |  |
| Physical Chemical Comments    | Not available.                              |                |                          |  |

| Section 10. Stability                   | Section 10. Stability and Reactivity               |  |  |
|---|--|--|--|
| <b>Stability and Reactivity</b>         | The product is stable.                             |  |  |
| Conditions of<br>Instability            | Not available.                                     |  |  |
| Incompatibility with Various Substances | Oxidizing material. Acid. Alkali.                  |  |  |
| Hazardous<br>Decomposition<br>Products  | Not applicable.                                    |  |  |
| Hazardous<br>Polymerization             | Hazardous polymerization is not expected to occur. |  |  |
| Special Stability & Reactivity Remarks  | Not available.                                     |  |  |

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## Section 11. Toxicological information

**Component Toxicological Information** 

**Acute Animal Toxicity** 

Glutaraldehyde ORAL (LD50): Acute: 100 mg/kg [Mouse]. 134 mg/kg [Rat].

VAPOR (LC50): Acute: 480 mg/m<sup>3</sup> 4 hour/hours [Rat].

#### **Chronic Toxicity Data**

1) Glutaraldehyde

Glutaraldehyde is a component of this product. In long-term experimental animal studies, glutaraldehyde caused liver damage in mice (ACGIH, 1992), but it was not neurotoxic in rats (Spencer et al, 1978).

Female rats had increased large granular lymphocytic leukemias after receiving glutaraldehyde in the drinking water at levels up to 1,000 ppm for 2 years (Andersen, 1996).

The results of genetic studies have been mixed with no conclusive evidence of positive effects.

In 2-year inhalation studies, there was no evidence of carcinogenic activity in male or female rats exposed to 250, 500 or 750 ppb, or in male or female mice exposed to 62.5, 125, or 250 ppb glutaraldehyde. (OSHA ceiling limit is 0.2 ppm, ACGIH ceiling limit is 0.095 ppm). Incidences of nasal and respiratory lesions were increased in both male/female rats and mice. Reduction in body weight, as compared to the controls was also noted.

#### **Product Toxicological Information**

| <b>Acute Animal Toxicity</b> | ORAL (LD50): Acute: 1330 mg/kg [Rat]. | DERMAL (LD50): Acute: | 2240 mg/kg [Male. | Rabbit]. |
|------------------------------|---------------------------------------|-----------------------|-------------------|----------|
| _                            | 3030 mg/kg [Female. Rabbit].          |                       |                   |          |
|                              |                                       |                       |                   |          |

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

Other Adverse Effects Not available.

Section 12 Ecological Information

| Section 12. Ecolog                        | icai information  |  |   |
|---|---|--|---|
| Ecotoxicity                               | BPC 68970   | Rainbow trout (LC50) Fathead minnow (LC50) Daphnia magna (LC50) Sheepshead minnow (LC50) Mysid shrimp (LC50) Grass shrimp (LC50) | 96 hour/hours 27 mg/l 96 hour/hours 12 mg/l 48 hour/hours 11 mg/l 96 hour/hours 71 mg/l 96 hour/hours 16 mg/l 96 hour/hours 91 mg/l |
| BOD5 and COD                              | Not available.  |  | 3   |
| Biodegradable/OECD                        | Not available.  |  |   |
| Toxicity of the Product of Biodegradation | S Not available.  |  |   |
| Special Remarks                           | This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, steams, ponds or estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) Permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. An EcoTox <sup>TM</sup> Report, and/or the material's environmental fate is available upon request at the following number: 1-800-235-4249, then press 4. |  |   |

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# 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

Not available.

**Remarks** 

| Section 14. Transport Information       |   |           |  |
|---|---|-----------|--|
| DOT Classification                      | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains: Glutaraldehyde), 8, UN3265, II | CORROSIVE |  |
| DOT Reportable Quantity                 | Not applicable.   |           |  |
| Marine Pollutant                        | Not applicable.   |           |  |
| Additional DOT Information              | Not available.  |           |  |
| Emergency Response<br>Guide Page Number | 153   |           |  |

| <b>HCS Classification</b>               | Target organ effects. Corrosive. Sensitizer.   |
|---|--|
| U.S. Federal<br>Regulations             |  |
| Environmental Regulations               | Extremely Hazardous Substances: Not applicable to any components in this product. SARA 313 Toxic Chemical Notification and Release Reporting: 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; delayed 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. |
| Threshold<br>Planning<br>Quantity (TPQ) | Not applicable.  |
| TSCA Inventory<br>Status                | All components are included or are exempted from listing on the US Toxic Substances Control Act Inventory.   |
|   | 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.  |

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|------------------------------|---|
| State Regulations            | State specific information is available upon request from Baker Petrolite.  |
| International Regulations    |   |
| Canada                       | All components are compliant with or are exempted from listing on the Canadian Domestic Substance List.   |
| WHMIS (Canada)               | D-1B, D-2B, E   |
| European Union               | 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.   |
|                              | International inventory status information is available upon request from Baker Petrolite for the following countries: Australia, China, Korea (TCCL), Philippines (RA6969), or Japan.  |
| Other Regulatory Information | This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide ACT (FIFRA) and is therefore exempt from US Toxic Substance Control Act (TSCA) Inventory listing requirements. EPA Registration No. 464-692-10707 |

#### Section 16. Other Information

Other Special

File 2908

Considerations

08/12/02 - Changes to Sections 2, 3, 5, 8, 9, 12, 14, and 15

04/29/03 - Changes to Sections 3, 4, 5, 9, 12, and 15 04/18/06 - Changes to Sections 2, 3, 5, 8, 9 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.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

This MSDS was prepared and is to be used for this product. If the product is used as a component in another product, this MSDS information may not be applicable.