BAKER HUGHES
Baker Petrolite

# Material Safety Data Sheet

## Section 1. Chemical Product and Company Identification

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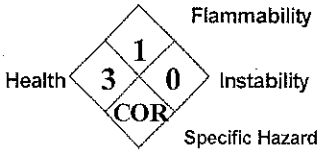
|---|---|---|---|
| **Product Name** | **BPC 67335 COMPLETE TREATMENT** | **Code** | BPC67335 |
| **Supplier** | Baker Petrolite<br>A Baker Hughes Company<br>12645 W. Airport Blvd. (77478)<br>P.O. Box 5050<br>Sugar Land, TX 77487-5050<br>For Product Information/MSDSs Call: 800-231-3606<br>(8:00 a.m. - 5:00 p.m. cst, Monday - Friday) 281-276-5400 | **Version** | 4.0 |
| **Material Uses** | Scale and Corrosion inhibitor | **Effective Date** | **4/2/2007** |
| **24 Hour Emergency Numbers** | CHEMTREC 800-424-9300 (U.S. 24 hour)<br>Baker Petrolite 800-231-3606<br>(001)281-276-5400<br>CANUTEC 613-996-6666 (Canada 24 hours)<br>CHEMTREC Int'l 01-703-527-3887 (International 24 hour) | **Print Date** | 4/2/2007 |

National Fire Protection Association (U.S.A.)




## Section 2. Hazards Identification

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| **Physical State and Appearance** | State: Clear. Liquid., Color: Amber., Odor: Slight Sweet. |
| **CERCLA Reportable Quantity** | Sodium hydroxide, 5626 gal. of this product. |
| **Hazard Summary** | DANGER. May cause chronic effects. May be corrosive to eyes, skin and respiratory tract. |
| **Routes of Exposure** | Skin (Contact), Eyes, Inhalation. |
| **Potential acute health effects** | |
| *Eyes* | May be corrosive to the eyes. May cause eye burns and permanent eye injury. |
| *Skin* | May be corrosive. Skin contact may produce burns. |
| *Inhalation* | May be irritating to lungs. |
| *Ingestion* | Not considered a likely route of exposure, however, may be aspirated into the lungs if swallowed. Can result in chemical pneumonitis (irritation) and pulmonary edema (accumulation of fluids) and hemorrhaging (bleeding). |
| **Medical Conditions aggravated by Exposure** | Exposure to this product may aggravate medical conditions involving the following: blood system, respiratory tract, skin/epithelium, eyes. |
| **See Toxicological Information (section 11)** | |
| **Additional Hazard Identification Remarks** | Not available. |

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## Section 3. Composition and Information on Ingredients

| Name | CAS # | % by Weight |
|---|---|---|
| Modified arylamine | Trade secret. | 1 - 5 |
| Disodium molybdate | 7631-95-0 | 1 - 5 |
| Sodium hydroxide | 1310-73-2 | 1 - 5 |

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

## Section 4. First Aid Measures

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| **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 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. 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** | If product is ingested and vomiting occurs naturally, have person lean forward to reduce the risk of aspiration into the lungs. |

## Section 5. Fire Fighting Measures

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| **Flammability of the Product** | Not regulated as flammable or combustible. |
| **OSHA Flammability Class** | IIIB |
| **Products of Combustion** | These products are carbon oxides (CO, CO2) nitrogen oxides (NO, NO2...) Oxides of sodium. Oxides of molybdenum.. |
| **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 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

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| **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 1-800-424-8802. |
| **Additional Accidental Release Measures Remarks** | Not available. |

## Section 7. Handling and Storage

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| **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

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|---|---|---|
| **Exposure Limits** | Modified arylamine | Not available. |
| | Disodium molybdate | **ACGIH (United States).**<br>TWA: 0.5 mg/m$^3$<br>**OSHA (United States).**<br>TWA: 5 mg/m$^3$ |
| | Sodium hydroxide | **ACGIH (United States).**<br>CEIL: 2 mg/m$^3$<br>**OSHA PEL 1989 (United States).**<br>TWA: 2 mg/m$^3$ 8 hour/hours. |
| **Additional Information on Exposure Limits** | The molybdenum exposure limits are for "Soluble Compounds as Molybdenum". 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.

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| *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. Nitrile or Neoprene gloves. |
| *Feet* | Chemical resistant boots or overshoes. |
| *Other information* | Not available. |
| **Additional Exposure Control Remarks** | Not available. |

## Section 9. Physical and Chemical Properties

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| **Physical State and Appearance** | Clear. Liquid. | **Odor** | Slight Sweet. |
| **pH** | 13.2 - 13.4 (Neat-without dilution.) | **Color** | Amber. |
| **Specific gravity** | 1.12 - 1.132 @ 16°C (60°F) | | |
| **Density** | 9.33 - 9.43 lbs/gal @ 16°C (60°F) | | |
| **Flash Points** | Closed cup: >93.4°C (200°F). (TCC) | | |
| **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** | >1 (Air = 1) | | |
| **Vapor Pressure** | Not Available or Not Applicable for Solids. | | |
| **Evaporation Rate** | Not Available or Not Applicable for Solids. | | |
| **VOC** | Not available. | | |
| **Viscosity** | 4 - 5 cP @ 16°C (60°F) | | |
| **Pour Point** | Not available. | | |
| **Solubility (Water)** | Soluble | | |
| **Physical Chemical Comments** | Not available. | | |

## Section 10. Stability and Reactivity

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| **Stability and Reactivity** | The product is stable. |
| **Conditions of Instability** | Not available. |
| **Incompatibility with Various Substances** | Oxidizing material. |
| **Hazardous Decomposition Products** | Not applicable. |
| **Hazardous 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**

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|---|---|
| Modified arylamine | ORAL (LD50): Acute: 920 mg/kg [Male rat]. 640 mg/kg [Female rat]. |
| Disodium molybdate | ORAL (LD50): Acute: 4000 mg/kg [Rat]. DUST (LC50): Acute: >2080 mg/m$^3$ 4 hour/hours [Rat]. |
| Sodium hydroxide | Not available. |

**Chronic Toxicity Data**

1) Modified arylamine

Not available.

2) Disodium molybdate

Sodium molybdate is a component of this product. Abnormal liver function tests have occurred in workers exposed to molybdenum compounds. Biochemical changes may predispose workers to gout (a severe arthritic condition brought on by the bodies inability to metablolize blood uric acid). Anemia (decrease in the number of red blood cells), and hypothyroidism (decreased production of thyroid hormone) may also occur. (MEDITEXT)

3) Sodium hydroxide

Sodium hydroxide is a component of this product. A 63-year-old man exposed to sodium hydroxide mist (as boiling lye solution) for 20 years had severe obstructive airway disease. This is the only known report of potential respiratory effects with chronic occupational sodium hydroxide exposure (Rubin et al, 1992).

Squamous cell carcinomas arise frequently in tissue healing from sodium hydroxide burns (Benedict, 1941; Bigelow, 1953; Gerami et al, 1971; Lansing et al, 1969; Schmidt-Bumler, 1970). These cicatricial (scar or relating to a scar) cancers probably arise as a result of nonspecific irritant action on the tissue and abnormalities in the regenerative process, rather than due to a specific carcinogenic effect of sodium hydroxide. Sodium hydroxide is not regarded as a human carcinogen.

Sodium hydroxide when injected directly into the amniotic fluid (0.001 M) on day 13 of pregnancy was teratogenic in rats, and slightly embryotoxic (Dostal, 1973). Boar sperm incubated directly with sodium hydroxide were destroyed (Okauchi & Ochiai, 1972).

**Product Toxicological Information**

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| **Acute Animal Toxicity** | Not available. |
| **Target Organs** | blood system, respiratory tract, skin/epithelium, eyes. |
| **Other Adverse Effects** | Not available. |

## Section 12. Ecological Information

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| **Ecotoxicity** | BPC 67335 COMPLETE TREATMENT | Daphnia pulex (EC50)<br>Pimephales promelas (LC50) | 48 hour/hours 1886 ppm<br>96 hour/hours 545 ppm |
| **BOD5 and COD** | Not available. | | |
| **Biodegradable/OECD** | Not available. | | |

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| **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.

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| **Additional Waste Remarks** | Not available. |

## Section 14. Transport Information

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| **DOT Classification** | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Contains: Sodium hydroxide, Modified arylamine), 8, UN3266, III |   |
| **DOT Reportable Quantity** | Sodium hydroxide, 5626 gal. of this product. | |
| **Marine Pollutant** | Not applicable. | |
| **Additional DOT Information** | Not available. | |
| **Emergency Response Guide Number** | 154 | |

## Section 15. Regulatory Information

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| **HCS Classification** | Target organ effects. Corrosive. |
| **U.S. Federal Regulations** | |
| **Environmental Regulations** | Extremely Hazardous Substances: Not applicable to any components in this product.<br>SARA 313 Toxic Chemical Notification and Release Reporting: Not applicable to any components in this product.<br>SARA 302/304 Emergency Planning and Notification substances: Not applicable to any components in this product.<br>Hazardous Substances (CERCLA 302): Sodium hydroxide, 5626 gal. of this product.;<br>SARA 311/312 MSDS distribution - chemical inventory - hazard identification: immediate health hazard; delayed health hazard;<br>Clean Water Act (CWA) 307 Priority Pollutants: Not applicable to any components in this product.<br>Clean Water Act (CWA) 311 Hazardous Substances: Sodium hydroxide;<br>Clean Air Act (CAA) 112(r) Accidental Release Prevention Substances: Not applicable to any components in this product. |
| **Threshold Planning Quantity (TPQ)** | Not applicable. |
| **TSCA Inventory Status** | All components are included or are exempted from listing on the US Toxic Substances Control Act Inventory. |

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| | 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. |
| **State Regulations** | State specific information is available upon request from Baker Petrolite. |
| **International Regulations** | |
| **Canada** | This product contains a chemical that has been nominated to the Canadian Domestic Substance List (DSL) but is not yet included on the DSL. As a result, this product or products containing this product cannot be imported to Canada unless nominated to the DSL by the importer of record. |
| **WHMIS (Canada)** | E |
| **European Union** | Not all components are included 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** | No further regulatory information is available. |

## *Section 16. Other Information*

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| **Other Special Considerations** | 2933<br>08/21/02 - Changes to Sections 2, 3, 5, 8, 9, 12, 14, and 15<br>04/28/05 - Changes to Sections 1, 2, 3, 5, 8, 9 and 15.<br>05/05/05 - Changes to Section 3 (Canadian).<br>04/02/07 - Changes to Sections 2, 3 and 9. |

**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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