



Material Safety Data Sheet

WHMIS (Pictograms)

WHMIS (Classification)

HCS

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| | <p>WHMIS Class E: Corrosive liquid. WHMIS CLASS D-2: Material causing other toxic effects.</p> | <p>HCS Class: Irritating substance.</p> |
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Section 1. Chemical Product and Company Identification

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|--|---|
| Product Name/ Trade name AF79 | Code 79 |
| Synonym Disinfectant/Cleaner/Degreaser/Deodorant/Mildewstat/Virucide | CAS # Not applicable. |
| Chemical Family N/A | Validation Date 8/9/2001 |
| Chemical Formula Not applicable. | Print Date 8/9/2001 |
| Manufacturer Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (419) 241-2156 | In Case of Emergency Chemtrec (800) 424-9300 |
| TSCA TSCA Inventory: All components listed or are exempt from listing. | Protective Clothing |
| DSL DSL : All components listed unless noted elsewhere on this MSDS | |

Section 2. Composition and Information on Ingredients

| Name | CAS # | % by Weight | Exposure Limits | LC ₅₀ /LD ₅₀ |
|--|------------|-------------|---|---------------------------------------|
| 1) Water | 7732-18-5 | 0-100 | Not available. | Not available. |
| 2) Sodium Metasilicate | 6834-92-0 | 0-5 | Not available. | Not available. |
| 3) Tetrasodium salt of ethylenediaminetetraacetic acid | 64-02-8 | 0-5 | Not available. | ORAL (LD50): Acute: 3030 mg/kg [Rat]. |
| 4) 2-Butoxyethanol | 111-76-2 | 0-5 | TWA: 20 (ppm) from ACGIH (TLV) [United States] TWA: 50 (ppm) from OSHA (PEL) [United States] | ORAL (LD50): Acute: 1746 mg/kg [Rat]. |
| 5) Nonionic Surfactant | 9016-45-9 | 0-5 | Not available. | Not available. |
| 6) Nonionic Surfactant | 61788-90-7 | 0-5 | Not available. | ORAL (LD50): Acute: 4610 mg/kg [Rat]. |
| 7) Nonionic Surfactant | 66455-15-0 | 0-5 | Not available. | Not available. |
| 8) Perfume Oil | N/A | 0-5 | Not available. | Not available. |
| 9) Dye | N/A | 0-5 | Not available. | Not available. |
| 10) Quaternary Ammonium Chloride | 68391-01-5 | 0.21 | Not available. | Not available. |

Section 3. Hazards Identification

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| Potential Acute Health Effects | Severe over-exposure can result in death. Corrosive to eyes and skin. Inflammation of the eye is characterized by redness, watering, and itching. Harmful if swallowed. |
| Potential Chronic Health Effects | Over-exposure by inhalation may cause respiratory irritation. |
| Carcinogenic Effects | Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. |

Section 4. First Aid Measures

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| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately. |
| Skin Contact | In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately. |
| Inhalation | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. |
| Ingestion | Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call a physician immediately. |

Section 5. Fire Fighting Measures

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|---|--------------------------|
| Products of Combustion | Not applicable. |
| Fire Fighting Media and Instructions | Non-flammable substance. |
| Special Remarks on Fire Hazards | N/A |
| Special Remarks on Explosion Hazards | N/A |

Section 6. Accidental Release Measures

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| Small Spill and Leak | Chemical anti-splash goggles. |
| Large Spill and Leak | Absorb with an inert material and put the spilled material in an appropriate waste disposal. |
| Personal Protection in Case of a Large Spill | Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. |

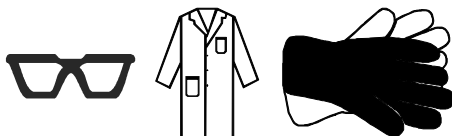
Section 7. Handling and Storage

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|------------------------|---|
| Precautions | Keep locked up. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents. |
| Incompatibility | acids oxidizing agents |
| Storage | Keep out of the reach of children. Not for use or storage in or around the home. |

Section 8. Exposure Controls/Personal Protection

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| Engineering Controls | Good general ventilation should be sufficient to control airborne levels. |
| Personal Protection | |
| <i>Eyes</i> | Safety glasses. |
| <i>Body</i> | Lab coat. |
| <i>Respiratory</i> | Wear appropriate respirator when ventilation is inadequate. |
| <i>Hands</i> | Gloves (impervious). |

Protective Clothing (Pictograms)



Exposure Limits**2-Butoxyethanol**

TWA: 25 (ppm)

TWA: 50 (ppm) from OSHA (PEL)

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

| | | | |
|--|-------------------------------|--------------|----------------------|
| Physical State and Appearance | Liquid. (Liquid.) | Odor | Pleasant. (Slight.) |
| Molecular Weight | Not applicable. | Taste | Burning. (Strong.) |
| pH | 11.5 to 12.5 [Basic.] | Color | Clear Blue. (Light.) |
| Boiling/Condensation Point | 213°F initial | | |
| Melting/Freezing Point | Not available. | | |
| Critical Temperature | Not available. | | |
| Instability Temperature | Not available. | | |
| Specific Gravity | 1.01 (Water = 1) | | |
| Vapor Pressure | 20mm Hg @ 68°F | | |
| Vapor Density | >1 (Air = 1) | | |
| Volatility | 90 | | |
| VOC | Not available. | | |
| Evaporation Rate | <1 compared to Water | | |
| Odor Threshold | Not available. | | |
| LogK_{ow} | Not available. | | |
| Ionicity (in Water) | Not available. | | |
| Dispersion Properties | See solubility in water. | | |
| Solubility | Easily soluble in cold water. | | |
| The Product is: | Non-flammable. | | |
| Auto-ignition Temperature | Not applicable. | | |
| Flash Points | Not applicable. | | |
| Flammable Limits | Not applicable. | | |
| Fire Hazards in Presence of Various Substances | Not applicable. | | |
| Explosion Hazards in Presence of Various Substances | Not applicable. | | |

Section 10. Stability and Reactivity Data

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| Stability | The product is stable. |
| Incompatibility with Various Substances | acids oxidizing agents |
| Hazardous Decomposition Products | Will not occur. |

Section 11. Toxicological Information

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| Routes of Entry | Not available. |
| Toxicity to Animals | WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 1746 mg/kg [Rat]. (2-Butoxyethanol). Acute toxicity of the gas (LC50): 926 ppm 4 hour(s) [Mouse]. (2-Butoxyethanol). |
| Acute Effects on Humans | <i>Eyes</i> Very hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. <i>Skin</i> Very hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. <i>Inhalation</i> Hazardous in case of inhalation. <i>Ingestion</i> Hazardous in case of ingestion. |
| Chronic Effects on Humans | Over-exposure by inhalation may cause respiratory irritation. |
| Special Remarks on Toxicity to Animals | No additional remark. |
| Special Remarks on Chronic Effects on Humans | No additional remark. |



Section 12. Ecological Information

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| Ecotoxicity | Not available. |
| BOD5 and COD | Not available. |
| Products of Biodegradation | Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. |
| Toxicity of the Products of Biodegradation | Not available. |
| Special Remarks on the Products of Biodegradation | No additional remark. |

Section 13. Disposal Considerations

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| Waste Information | Waste must be disposed of in accordance with federal, state and local environmental control regulations. |
| Waste Stream | Not available. |

Section 14. Transport Information

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| DOT (U.S.A) (Pictograms) |  |
| TDG Classification | Not a TDG controlled material.  |
| PIN UN, Proper Shipping Name, PG | |

Maritime Transportation Not available.

Special Provisions for Transport Not available.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) WHMIS Class E: Corrosive liquid. WHMIS CLASS D-2: Material causing other toxic effects.



Regulatory Lists CEPA DSL: AF79

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

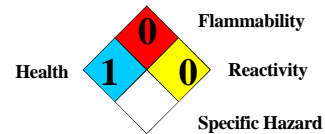
Other Classifications

| | |
|---------------------------------|---|
| HCS (U.S.A.) | HCS Class: Irritating substance. |
| USA Regulatory Lists | No products were found. This product does not contain any components listed on California Prop 65 SARA 311/312: 2-Butoxyethanol SARA 313: 2- Butoxyethanol |
| DSD (EEC) | This product is not classified according to the EU regulations. |
| International Regulations Lists | No products were found. |

Hazardous Material Information System (U.S.A.)

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|---------------------|---|
| Health | 2 |
| Flammability | 0 |
| Reactivity | 0 |
| Personal Protection | B |

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



Section 16. Other Information

Validated by CRushton on 8/9/2001.

Verified by CRushton.

Printed 8/9/2001.

Information Contact Betco Corporation
1001 Brown Avenue
Toledo, Ohio 43607

Notice to Reader

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