

BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

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|----------------|--|---|---------|
| Common Name: | RegularCal™ | Code: | 6060 |
| Supplier: | BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477 | MSDS#: | 6060 |
| Synonym: | None. | Validation Date: | 4-20-09 |
| Trade Name: | Not available. | Print Date: | 4-20-09 |
| Material Uses: | Not available. | Responsible Name: | Dr. B |
| Manufacturer: | BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477 | In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477 | |

Section 2. Composition and Information on Ingredients

| Name | CAS# | % by Weight | OSHA PEL/TWA | ACGIH TLV/STEL |
|----------------------|---------------|--|---------------------|---------------------|
| 1) Water | 7732-18-5 | Percentage composition withheld as trade secret. | Data not available. | Data not available. |
| 2) Formic Acid 90% | 64-18-8 | | 5 ppm | 10 ppm |
| 3) Hydrochloric Acid | 7647-01-0 | | Data not available. | 5 ppm/CL |
| 4) Selected buffers | Not available | | Data not available. | Data not available. |
| 5) Selected ethers | Not available | | | |

Section 3. Hazards Identification

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| Physical State and Appearance | Clear yellow liquid. |
| Emergency Overview | Not available. |
| Routes of Entry | Eye contact, inhalation, ingestion, skin contact. |
| Potential Acute Health Effects | |
| Eyes | Corrosive, irritation, and inflammation. |
| Skin | Corrosive, irritation with itching and local redness. |
| Inhalation | Corrosive, irritation, and inflammation to mucous membranes. |
| Ingestion | Corrosive, toxic. May cause headaches, dizziness, nausea, and general weakness. |
| Potential Chronic Health Effects | |
| Medical Conditions | Respiratory conditions. |
| Aggravated by Overexposure | |
| Overexposure/Signs/Symptoms | |

Section 4. First Aid Measures

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| Eye Contact | Immediately flush with water for at least 15 minutes. |
| Skin Contact | Immediately flush with large amounts of water. Remove contaminated clothing. |
| Inhalation | Remove to fresh air; give artificial respiration if breathing has stopped. |
| Ingestion | Dilute with large amounts of water, get immediate medical attention. |
| Notes to Physician | Not available. |

Section 5. Fire Fighting Measures

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| Flammability of the Product | Not available. |
| Auto-ignition Temperature | Not available. |
| Flash Points | Not available. |
| Flammable Limits | Not available. |
| Products of Combustion | Not available. |

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| Fire Hazards in Presence Of Various Substances | Not available. |
| Explosion Hazards in Presence of Various Substances | Not available. |
| Fire Fighting Media and Instructions | Alcohol or all purpose-type foam for large fires, carbon dioxide or dry chemical for small fires. Water spray to cool containers and disperse vapors. |
| Protective Clothing (Fire) | Use self-contained breathing apparatus and protective clothing. |
| Special Remarks on Fire Hazards | Not available. |
| Special Remarks on Explosion Hazards | |

Section 6. Accidental Release Measures

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| Small Spill and Leak | Flush small spills with large amounts of water. Evacuate the area of all unnecessary personnel. Wear suitable protective clothing listed in section VIII. Contain the release and eliminate it's source, if this can be done without risk. Neutralize, take up and containerize for proper disposal as described under Waste Disposal Method. Comply with Federal, State, and local regulations on reporting releases. |
| Large Spill and Leak | Same as above. |

Section 7, Handling and Storage

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| Handling | Do not breathe vapors. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. |
| Storage | Keep container closed. Avoid metal containers. Store at controlled room temperature. |

Section 8. Exposure Controls / Personal Protection

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| Engineering Controls | |
| Personal Protection | |
| Eyes | Safety glasses with side shields should be worn at all times. Eye wash and safety equipment should be available. |
| Body | Wear impervious protective clothing to prevent skin contact. |
| Respiratory | If workplace exposure limit(s) of product or any component is exceeded, a NIOSH/MAHA approved air supplied respirator is advised in absence of proper environmental control. |
| Hands | Protective gloves should be worn to prevent skin contact (Neoprene or equivalent). |
| Feet | Wear impervious protective footwear to prevent skin contact. |
| Personal Protection in Case of a Large Spill | Safety glasses with side shields, impervious clothing and footwear, respirator advised in absence of proper environmental control, protective gloves. |
| Product Name | Exposure Limits |
| 1) | |
| 2) | |
| 3) | |
| Consult Local authorities before acceptable exposure limits. | |

Section 9. Physical and Chemical Properties

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|--------------------------------------|-------------------|---------------|----------------------|
| Physical State and Appearance | Not applicable. | Odor: | Not available. |
| Molecular Weight | Not applicable. | Taste: | Not available. |
| Molecular Formula | Not applicable. | Color: | Clear yellow liquid. |
| pH (1%/Water) | Not applicable. | | |
| Boiling/Condensation Point | Not applicable. | | |
| Melting/Freezing Point | Not applicable. | | |
| Critical Temperature | Not applicable. | | |
| Specific Gravity | Not applicable. | | |
| Vapor Pressure | Not applicable. | | |
| Vapor Density | Not applicable. | | |
| Volatility | Not applicable. | | |
| Odor Threshold | Not applicable. | | |
| Evaporation Rate | Not applicable. | | |
| VOC | Not available. | | |
| Viscosity | Not available. | | |
| Ionicity (in water) | Not available. | | |
| Dispersion Properties | Not available. | | |
| Solubility | Soluble in water. | | |
| Physical Chemical Comments | Not available. | | |

Section 10. Stability and Reactivity

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| Stability and Reactivity | Stable. |
| Conditions of Instability | Avoid sources of ignition. |
| Incompatibility with Various Substances | Bases, oxidizers, H ₂ O ₂ , P ₂ O ₅ . |
| Hazardous Decomposition Products | CO _x , Na ₂ O. |
| Hazardous Polymerization | Not available. |

Section 11. Toxicological Information

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| Toxicity to Animals | LD50: Not available. LC50: Not available. Tests on laboratory animals indicate formic acid may produce adverse mutagenic effects. |
| Chronic Effects on Humans | |
| Other Toxic Effects on Humans | |
| Special Remarks on Toxicity to Animals | Hydrochloric Acid - DeMinimis/SARA 313% - 1.0 |
| Special Remarks on Chronic Effects on Humans | Not available. |
| Special Remarks on Other Toxic Effects on Humans | Not available. |

Section 12. Ecological Information

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| Ecotoxicity | Not available. |
| BODS and COD | Not available. |
| Biodegradable/OEDC | Not available. |
| Mobility | Not available. |
| Toxicity of the Products of Biodegradation | Not available. |
| Special Remarks on The Products of Biodegradation | Not available. |

Section 13. Disposal Considerations

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| Waste Information | Not available. |
| Waste Stream | Not available. |
| Consult your local or regional authorities. | |

Section 14. Transport Information

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| DOT Classification | Corrosive Liquid, , UN3264 Corrosive Liquid, Acidic, Inorganic, n.o.s, (Formic Acid and Hydrochloric Acid), 8. II |
| Marine Pollutant | Corrosive Liquid |
| Hazardous Substances Reportable Quantity | Not available. |
| Special Provisions for Transport | Corrosive Liquid |
| TDG Classification | Corrosive Liquid, UN3264 Corrosive Liquid, Acidic, Inorganic, n.o.s, (Formic Acid and Hydrochloric Acid), 8. II |
| ADR/RID Classification | Corrosive Liquid, shipping information not available. |
| IMO/IMDG Classification | Corrosive Liquid, shipping information not available. |
| ICAO/IATA Classification | See IATA Regulations, Corrosive Liquid, UN3264 Corrosive Liquid, Acidic, Inorganic, n.o.s, (Formic Acid and Hydrochloric Acid), 8. II |

Section 15. Other Information

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| Label requirements | |
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| Hazardous Material Information System (U.S.A.) | Health | 2 | National Fire Protection Association (U.S.A.) | |
| | Fire Hazard | 1 | | |
| | Reactivity | 0 | | |
| | Personal Protection | | | |
| References | | | | |
| Other Special Considerations | | | | |
| Notice to Reader | | | | |
| <p><i>To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.</i></p> | | | | |