



# Safety Data Sheet

## Regular Cal Immuno™

### 1. Identification

**Product Name:** Regular Cal Immuno™**Item #:** 6078, 6080, 6085**Web SDS:** S48**Synonyms:** N/A**Recommended Use:** Decalcifier, Laboratory Reagent**Restrictions on Use:** Any use other than recommended**Manufacturer:**BBC Biochemical  
409 Eleanor Lane,  
Mount Vernon, WA 98273  
1-800-635-4477**In Case of Emergency:**Chemtec US 1-800-424-9300  
Chemtec International 703-527-3887

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

Skin Corrosion - Category 1A

Eye Damage - Category 1

**Signal Word:** Danger**Hazard Statement(s):** Causes severe skin burns and eye damage. Causes serious eye damage.**Pictogram(s):****Precautionary Statement(s):** Prevention: Do not breathe dusts or mists. Wash body thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection, face protection.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off all contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor. Specific treatment (see first aid section on this label). If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

**Descriptions of Hazards not otherwise classified:** N/A**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Water		7732-18-5	Trade Secret
Formic Acid		64-18-6	Trade Secret
Hydrochloric Acid		7647-01-0	Trade Secret
Select buffers		Trade Secret	Trade Secret
Select ethers		Trade Secret	Trade Secret

### 4. First Aid Measures

**Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the



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lungs. Get medical attention.

**Symptoms:** Irritation of eyes, skin, nose, throat; skin burns, blisters, dermatitis; lacrimation; rhinorrhea; cough, dyspnea; nausea; eye redness, pain, burns, blurred vision; pulmonary edema; metabolic acidosis; unconsciousness, hemolysis, hematuria (blood in the urine); central nervous system depression, headache; vomiting bronchitis [potential occupational carcinogen] ; INGES. ACUTE: Burning sensation, sore throat, abdominal pain, cramps, vomiting, diarrhea

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell. Seek medicated attention immediately for acute exposure.

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store locked up. Store in a well-ventilated place. Keep container tightly closed. Do not store in metal containers.

### 8. Exposure Controls/Personal Protection

#### OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Formic Acid	64-18-6	5ppm
Hydrochloric Acid	7647-01-1	5ppm
Select buffer	Trade Secret	0.2 mg/m3
Select ether	Trade Secret	50 ppm (240 mg/m3) TWA Skin

#### ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Formic Acid	64-18-6	5 ppm, 9.4 mg/m3	10 ppm, 19 mg/m3
Hydrochloric Acid	7647-01-1	2 ppm (3 mg/m3) Ceiling3	
Select buffer	Trade Secret	0.2 mg/m3	
Select ether	Trade Secret	20 ppm (97 mg/m3)	

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Yellow, Liquid

**Molecular Weight:** N/A



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**Molecular Formula:** N/A  
**pH:** 1.03  
**Boiling Point and Boiling Range:** N/A  
**Melting Point/Freezing Point:** N/A  
**Flash Point:** N/A  
**Specific Gravity/Relative Density:** N/A  
**Odor:** Pungent  
**Odor Threshold:** N/A  
**Color:** Yellow  
**Flammability (solid/gas):** N/A  
**Vapor Density:** N/A  
**Upper/Lower flammability or explosive limits:** N/A  
**Vapor Pressure:** N/A  
**Evaporation Rate:** N/A  
**Partition Coefficient: n-octanol/water:** N/A  
**Viscosity:** N/A  
**Auto-ignition temperature:** N/A  
**Solubility:** N/A  
**Decomposition Temperature:** N/A

### 10. Stability and Reactivity

**Reactivity:** Not Reactive  
**Chemical Stability:** Stable  
**Conditions of Stability/Instability:** Stable under normal conditions of temperature and pressure  
**Stabilizers needed:** None  
**Safety issue indicated by appearance change:** N/A  
**Other:** N/A  
**Hazardous Reactions:** N/A  
**Hazardous Polymerization:** Does not occur  
**Conditions to avoid:** N/A  
**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases  
**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

#### Likely Routes of Exposure

**Eyes:** Corrosive to eyes, may cause permanent corneal damage, redness and pain.  
**Skin:** Corrosive to skin, may cause permanent damage, redness, pain and death.  
**Inhalation:** Dizziness, headache. Respiratory irritation.  
**Ingestion:** Nausea. Very corrosive solution. May cause burns to mouth, throat, stomach and gastrointestinal tract.

**Signs or Symptoms of Exposure:** Irritation of eyes, skin, nose, throat; skin burns, blisters, dermatitis; lacrimation; rhinorrhea; cough, dyspnea; nausea; eye redness, pain, burns, blurred vision; pulmonary edema; metabolic acidosis; unconsciousness, hemolysis, hematuria (blood in the urine); central nervous system depression, headache; vomiting bronchitis [potential occupational carcinogen]; INGES. ACUTE: Burning sensation, sore throat, abdominal pain, cramps, vomiting, diarrhea

**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea. Target Organs Eyes, skin, respiratory system, central nervous system, hematopoietic system, blood, kidneys, liver, lymphoid system

**Acute Toxicity (Numerical Measures):** Hydrochloric Acid: LD50(oral, rat)=900 mg/kg; LC50(inhalation, mouse)=1108 ppm/1H; LC50(inhalation, mouse)=3940 mg/m<sup>3</sup>/30M



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Formic Acid: LD50(oral,mouse)=700 mg/kg; LC50(inhalation,mouse)=6200 mg/m<sup>3</sup>/15MLC50(inhalation,rat)=7400 mg/m<sup>3</sup>/4H

**Carcinogenicity (NTP, IARC, OSHA):** N/A

### 12. Ecological Information

**Ecotoxicity:** Hydrochloric Acid: Ecotoxicity: CAS 7647-01-0 Hydrochloric Acid Fish: LC50 (96 Hr) Mosquito Fish: 282 mg/L LC100(24Hr) Trout: 10 mg/L Invertebrates: LC50(48Hr) Starfish: 100-330 mg/L LC50 (48Hr) Shrimp: 100-330 mg/L

Formic Acid: Toxicity to fish: LC50-Leuciscus idus(Golden orfe)-46-100mg/l-96h Toxicity to daphnia and other aquatic invertebrates:EC50-Daphnia magna(Water flea)-34.2mg/l-48h Toxicity to bacteria-Pseudomonas putida-46.7mg/l-17h

**Persistence and degradability:** Formic Acid: iodegradability:Result:>90%-Readily biodegradable. Bioaccumulation is unlikely Biochemical Oxygen Demand (BOD)=86mg/g Chemical Oxygen Demand (COD) 348mg/g

**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A

**Mobility in the soil:** N/A

**Adverse Environmental Effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

### 14. Transport Information

**UN Number:** UN3264

**UN Proper Shipping Name:** Corrosive Liquid, Acidic, Inorganic, n.o.s. (Formic Acid)

**Transport Hazard Class(es):** 8

**Packing Group Number:** III

**Environmental Hazards (IMDG code):**

**Marine Pollutant:** No

**Transport in Bulk (IBC Code):** N/A

**Special Transport Precautions:** N/A

### 15. Regulatory Information

**OSHA:** N/A

**DOT:** N/A

**EPA:** N/A

**CPSC:** N/A



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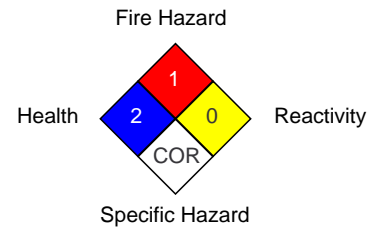
### 16. Other Information

Revision Date: 04/22/2015

#### NFPA

Health	2
Fire Hazard	1
Reactivity	0
Specific Hazard	COR

National Fire Protection Association (USA) NFPA



#### HMIS

Health	2
Flammability	1
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	2
Flammability	1
Physical Hazard	0
Personal Protection	

#### Notice to Reader:

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