MATERIAL SAFETY DATA SHEET

FREMONT INDUSTRIES, INC.
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FREMONT CE-411

SECTION I  GENERAL INFORMATION
NAME ON LABEL (Identity):  FREMONT CE-411 Microbiocide
CHEMICAL FAMILY:  Aqueous Glutaraldehyde Solution
HMIS HAZARD CODES:  Health (1) Flammability (0) Reactivity (0)
NFFA HAZARD CODES:  Health (1) Flammability (0) Reactivity (0) Special Hazard: NA
HAZARD RATING SCALE:  4 = Severe  3 = Serious  2 = Moderate  1 = Slight  0 = Minimal

SECTION II  HAZARDOUS INGREDIENTS
PRINCIPAL HAZARDOUS COMPOUNDS
(Chemical & Common Name(s))  PERCENT
Glutaraldehyde  15
Methanol  0.2
OSHA  ACGIH
PEL  TLV
0.1 ppm C  0.2 ppm C
200 ppm TWA (skin)  200 ppm TWA (skin)
CAS #
NA = Not Applicable  NE = Not Established

SECTION III  PHYSICAL DATA
BOILING POINT (°F):  212°F
SPECIFIC GRAVITY (H2O = 1):  1.04
VAPOR PRESSURE (mm Hg):  0.20 (active ingredient)
EVAPORATION RATE (BuAc = 1):  0.8
SOLUBILITY IN WATER:  Complete
MELTING POINT (°F):  20
VAPOR DENSITY (Air = 1):  0.7
APPEARANCE AND ODOR:  Clear, colorless liquid, sharp fruity odor.

SECTION IV  FIRE AND EXPLOSION HAZARD DATA
FLASH POINT (Method Used):  None
FLAMMABLE LIMITS:  LEL: NE  UEL: NE
EXTINGUISHING MEDIA:  As recommended for primary source of fire.
AUTO-IGNITION TEMPERATURE:  NE

SPECIAL FIRE FIGHTING PROCEDURES:  Firefighters should wear all protective equipment including self-contained breathing apparatus when exposed to smoke, fumes or hazardous decomposition products. Keep containers cool with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS:  None

SECTION V  REACTIVITY DATA
STABILITY:  Unstable  Stable  X
CONDITIONS TO AVOID:  Avoid high temperature and evaporation of water.
INCOMPATIBILITY (Materials to Avoid):  Alkalis and acids.
HAZARDOUS POLYMERIZATION:  Will Not Occur  X  May Occur
CONDITIONS TO AVOID:  None
HAZARDOUS DECOMPOSITION PRODUCTS:  Oxides of carbon.

SECTION VI  HEALTH HAZARD DATA
ROUTE(S) OF ENTRY:  Inhalation, skin contact, eye contact.

HEALTH HAZARDS:  Acute - Eye Exposure: May cause severe and persistent conjunctivitis. Severe corneal injury may develop, which could permanently impair vision if prompt first aid and medical treatment are not obtained. Skin Exposure: May cause itching, local redness and swelling. Ingestion: Moderately toxic. May cause irritation or chemical burns of the mouth, throat, esophagus and stomach. Ingestion may result in pain to the chest and abdomen, nausea, vomiting, diarrhea, dizziness, circulatory shock and coma. Inhalation: Vapor is irritating to the respiratory tract, nose and throat. May cause coughing, breathing difficulties and headaches.

Chronic - Skin Exposure: Repeated skin contact may cause a cumulative dermatitis.
SECTION VI HEALTH HAZARD DATA (continued)

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: Yes ____ No ___ X
NATIONAL TOXICOLOGY PROGRAM: Yes ____ No ___ X
I.A.R.C. MONOGRAPHS: Yes ____ No ___ X
OSHA: Yes ____ No ___ X

SIGNS AND SYMPTOMS OF EXPOSURE: Reddening, burning or itching of skin; watering or blurring of eyes.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Skin contact may aggravate an existing dermatitis. Inhalation may aggravate asthma and inflammatory or fibrotic pulmonary disease.

EMERGENCY AND FIRST AID PROCEDURES:
EYES: Flush immediately with cool water for 15 minutes. DO NOT remove contact lenses, if worn. Call physician immediately.
SKIN: Flush immediately with cool water for 15 minutes. Call physician immediately.
INHALATION: Remove to fresh air. If any irritation persists, call physician immediately.
INGESTION: DO NOT INDUCE VOMITING. Do not give anything to drink. Call physician and/or Chemtrec immediately.

SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb bulk spill on inert material and containerize. Do not flush to storm sewers, lakes, streams, estuaries, etc. Wear all protective equipment.

WASTE DISPOSAL METHOD: Dispose of in accordance with Federal, State, and Local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Wear all protective equipment. Use with adequate ventilation.

OTHER PRECAUTIONS: Store at room temperature. Keep container closed when not in use.

SECTION VIII SPECIAL PROTECTION INFORMATION AND CONTROL MEASURES

RESPIRATORY PROTECTION (Specify Type): NIOSH/MSHA approved for dusts, fumes, and mists. (TC-21C-202, i.e. 3M #9920).

VENTILATION: LOCAL EXHAUST: Recommended MECHANICAL (General): X SPECIAL: NA OTHER: NA

PROTECTIVE GLOVES: Rubber

EYE PROTECTION: Splash proof safety goggles or face shield.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Full cover clothing, including long sleeves, rubber apron. Eye wash and safety shower in immediate vicinity.

WORK/HYGIENIC PRACTICES: Wear all protective equipment. Wash thoroughly after handling. Do not smoke near containers. Store away from food. Wash contaminated clothing before re-use.
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SECTION IX  REGULATORY INFORMATION

CERCLA 40 CFR 302.4: NA

SARA TITLE III:
Section 302/304: NA
Section 311/312 Hazard Category: Acute
Section 313: NA

Bruce Busch (Chemist)  4/21/00
Prepared by (Optional)  Issue Date

12/15/99  Supersedes

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