Valid 02/1999 - 04/1999

Aldrich Chemical Co., Inc. 1001 West St. Paul Milwaukee, WI 53233 USA Tel: 414-273-3850

## SECTION 1. - - - - - - CHEMICAL IDENTIFICATION- - - - -223506 CATALOG #: CALCIUM CHLORIDE DIHYDRATE, 98+%, A.C.S. NAME: REAGENT SECTION 2. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - -CAS #: 10035-04-8 MF: CACL2 SYNONYMS CALCIUM DICHLORIDE DIHYDRATE \* CAL PLUS \* REPLENISHER (CALCIUM) \* SECTION 3. - - - - - - - HAZARDS IDENTIFICATION - - - - -LABEL PRECAUTIONARY STATEMENTS HARMFUL HARMFUL IF SWALLOWED. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF ' WATER AND SEEK MEDICAL ADVICE. WEAR SUITABLE PROTECTIVE CLOTHING. SECTION 4. - - - - - - - FIRST-AID MEASURES- - - - -IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER. IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN. WASH CONTAMINATED CLOTHING BEFORE REUSE. SECTION 5. - - - - - - FIRE FIGHTING MEASURES - -EXTINGUISHING MEDIA NONCOMBUSTIBLE. USE EXTINGUISHING MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS. SPECIAL FIREFIGHTING PROCEDURES WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. UNUSUAL FIRE AND EXPLOSIONS HAZARDS EMITS TOXIC FUMES UNDER FIRE CONDITIONS. SECTION 6. - - - - - - ACCIDENTAL RELEASE MEASURES- - - - -WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES. SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL. AVOID RAISING DUST. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE. SECTION 7. - - - - - - HANDLING AND STORAGE- - - - - - -REFER TO SECTION 8. ADDITIONAL INFORMATION CALCIUM CHLORIDE IS ATTACKED BY BROMINE TRIFLUORIDE. SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING. SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.

MATERIAL SAFETY DATA SHEET

```
DO NOT BREATHE DUST.
   AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
   AVOID PROLONGED OR REPEATED EXPOSURE.
   WASH THOROUGHLY AFTER HANDLING.
   KEEP TIGHTLY CLOSED.
   STORE IN A COOL DRY PLACE.
SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - -
 APPEARANCE AND ODOR
   WHITE POWDER
 PHYSICAL PROPERTIES
                       176 C
   MELTING POINT:
   SPECIFIC GRAVITY: 0.01MM 20 C
ION 10 -
SECTION 10. - - - - - - - - - - STABILITY AND REACTIVITY - - - - -
  INCOMPATIBILITIES
   STRONG ACIDS
 HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
   HYDROGEN CHLORIDE GAS
SECTION 11. - - - - - - TOXICOLOGICAL INFORMATION - -
 ACUTE EFFECTS
   HARMFUL IF SWALLOWED.
   MAY BE HARMFUL IF INHALED.
   MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
   CAUSES EYE AND SKIN IRRITATION.
   MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER
   RESPIRATORY TRACT.
   TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
   TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.
 RTECS #: EV9810000
   CALCIUM CHLORIDE, DIHYDRATE
 TOXICITY DATA
                                                 CYLPDN 4,110,1983
   IPR-MUS LD50:20500 MG/KG
   ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
    (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
   COMPLETE INFORMATION.
SECTION 12. - - - - - -
                         - - ECOLOGICAL INFORMATION - - - - - -
   DATA NOT YET AVAILABLE.
SECTION 13. - - - - - - DISPOSAL CONSIDERATIONS - - - -
   CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF
   THIS MATERIAL.
   OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.
SECTION 14. - - - - - - - TRANSPORT INFORMATION - - - - - - -
   CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.
SECTION 15. - - - - - - REGULATORY INFORMATION - - - - - -
 EUROPEAN INFORMATION
   CAUTION: SUBSTANCE NOT YET FULLY TESTED.
   HARMFUL
   R 22
   HARMFUL IF SWALLOWED.
   R 36/37/38
   IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
   IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
   WATER AND SEEK MEDICAL ADVICE.
   S 36
   WEAR SUITABLE PROTECTIVE CLOTHING.
 REVIEWS, STANDARDS, AND REGULATIONS
   OEL=MAK
   NOES 1983: HZD X3586; NIS 12; TNF 1290; NOS 23; TNE 19024; TFE 10290
SECTION 16. - - - - - - - OTHER INFORMATION- - - - - - - - -
   THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO
   BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SIGMA, ALDRICH,
   FLUKA SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING
   OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR
   PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.
```

COPYRIGHT 1998 SIGMA-ALDRICH CO. LICENSE GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY