Sigma Chemical Co. P.O. Box 14508

St. Louis, MO 63178 USA Phone: 314-771-5765

MATERIAL SAFETY DATA SHEET

CECETON 1	CUTINIT CALL INDIVIDUAL CARTON
CATALOG #:	CHEMICAL IDENTIFICATION
NAME:	MALONIC ACID DISODIUM
	- COMPOSITION/INFORMATION ON INGREDIENTS
CAS #: 26522-8	5-0
MF: C3H2NA2O4	
SYNONYMS	DIOLOGICA + NOTO WILLOODIA GIR DINOIN + BENT
	ATE * MALONIC ACID, DISODIUM SALT (8CI) * PROPANEDIOIC
	SALT (9CI) * SODIUM MALONATE *
LABEL PRECAUTION	ARI STATEMENTS
CAUTION:	AND TAILAT AUTON
	AND INHALATION.
HYGROSCOPIC	ETDOM ATD MEACIDEO
	WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICI	
-	MOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT,
CALL A PHYSICI	AN. TACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS
	•
AMOUNTS OF WAT	TACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER
	5 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING
	TH FINGERS. CALL A PHYSICIAN.
	FIRE FIGHTING MEASURES
EXTINGUISHING ME	
WATER SPRAY.	
	, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.
SPECIAL FIREFIGH	
	AINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
	T WITH SKIN AND EYES.
	EXPLOSIONS HAZARDS
	MES UNDER FIRE CONDITIONS.
	ACCIDENTAL RELEASE MEASURES
	R, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.	., 5 5 211 0000228, 10022211 20010 12.3 12.11
	E IN A BAG AND HOLD FOR WASTE DISPOSAL.
AVOID RAISING	
	AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.
	HANDLING AND STORAGE
REFER TO SECTI	
SECTION 8	EXPOSURE CONTROLS/PERSONAL PROTECTION
SAFETY SHOWER	AND EYE BATH.
MECHANICAL EXH	AUST REQUIRED.
AVOID INHALATI	ON.
AVOID CONTACT	WITH EYES, SKIN AND CLOTHING.
	D OR REPEATED EXPOSURE.
NIOSH/MSHA-APP	ROVED RESPIRATOR.
COMPATIBLE CHE	MICAL-RESISTANT GLOVES.
CHEMICAL SAFET	Y GOGGLES.
KEEP TIGHTLY C	LOSED.
STORE IN A COO	L DRY PLACE.

```
WASH THOROUGHLY AFTER HANDLING.
SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - -
 APPEARANCE AND ODOR
    SOLID.
SECTION 10. - - - - - - - - - - - STABILITY AND REACTIVITY - - - - -
 STABILITY
    STABLE.
 INCOMPATIBILITIES
   PROTECT FROM MOISTURE.
   STRONG OXIDIZING AGENTS
 HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
   CARBON MONOXIDE, CARBON DIOXIDE
 HAZARDOUS POLYMERIZATION
   WILL NOT OCCUR.
SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -
 ACUTE EFFECTS
   MAY CAUSE SKIN IRRITATION.
   MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
   MAY CAUSE EYE IRRITATION.
   MAY BE HARMFUL IF INHALED.
   MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER
   RESPIRATORY TRACT.
   MAY BE HARMFUL IF SWALLOWED.
   TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
   TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.
 RTECS #: 001750000
   MALONIC ACID, SODIUM SALT
 TOXICITY DATA
   IPR-RAT LD50:1100 MG/KG
                                                 JPPMAB 17,814,1965
    IPR-MUS LD50:1550 MG/KG
                                                 AIPTAK 79,461,1949
    IVN-MUS LD50:2100 MG/KG
                                                 AIPTAK 79,461,1949
                                                 AIPTAK 79,461,1949
    IVN-RBT LD50:660 MG/KG
 TARGET ORGAN DATA
   BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)
    CARDIAC (OTHER CHANGES)
   LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)
    ENDOCRINE (HYPERGLYCEMIA)
    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.
   DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A
    CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.
    OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.
SECTION 14. - - - - - - TRANSPORT INFORMATION - - - -
   CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.
SECTION 15. - - - - - - REGULATORY INFORMATION - - - - - - -
 EUROPEAN INFORMATION
   CAUTION: SUBSTANCE NOT YET FULLY TESTED.
   DO NOT BREATHE DUST.
   S 24/25
   AVOID CONTACT WITH SKIN AND EYES.
 REVIEWS, STANDARDS, AND REGULATIONS
    EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
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 2001 SIGMA-ALDRICH CO.
LICENSE GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY