DATE: 05/04/01 ACCT: 888235001 INDEX: A11231373 CAT NO: AC215300250 PO NBR: STEVEN ANDERSON/VC/050301

**** MATERIAL SAFETY DATA SHEET ****

Tetrakis (dimethylamino) ethylene, 98% ACROS49151

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Tetrakis(dimethylamino)ethylene, 98% Catalog Numbers

AC215300000, AC215300250, AC215301000

Synonyms:

Company Identification (Europe): Acros Organics N.V.

Janssen Pharmaceuticalaan 3a 2440 Geel, Belgium

Acros Organics

One Reagent Lane Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01 0032(0) 14575211

For information in Europe, call: 800-ACROS-01 1457: For emergencies in the US, call CHEMTREC: 800-424-9300 For emergencies in Europe, call: 0032(0) 14575299

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

П.	CAS#	Chemical Name	%	EINECS#	
Щ	996-70-3	Tetrakis (dimethylamino) ethylene	98	213-638-1	

Risk Phrases: 10

Company Identification (USA):

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW Appearance: clear yellow. Flash Point: 53 deg C. Warning! Flammable liquid and vapor. Causes respiratory tract irritation. May cause digestive tract irritation. Air sensitive. May cause central nervous system depression. Causes eye and skin

Target Organs: Central nervous system.

Potential Health Effects Eye:

Causes eye irritation and possible burns. May cause chemical conjunctivitis and corneal damage.

Skin:

Causes skin irritation and possible burns. May cause cyanosis of the extremities.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Ingestion of large amounts may cause CNS depression.

Vapors may cause dizziness or suffocation. Can produce delayed pulmonary edema. Causes respiratory tract irritation with possible burns. May cause burning sensation in the chest. Chronica

Effects may be delayed.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4

nor induce vomiting. If victim is constitute and areas, greupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid. Inhalation:

Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:

ral Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire. Use water spray to keep fire-exposed containers coal. Water may be water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread

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by the use of water. Containers may explode in the heat of a fire. Flammable Liquid. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Extinguishing Media:

nguisming media:
For small fires, use dry chemical, carbon dioxide, water spray or
alcohol-resistant foam. For large fires, use water spray, fog, or
alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Use agent most appropriate to extinguish fire. Do NOT use straight streams of water.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material, (e.g., vermiculite, dry sand or earth), then place into a chemical waste container. Do not use combustible materials such as saw dust. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Place under an inert atmosphere. A vapor suppressing foam may be used to reduce vapors.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Ground and bond containers when transferring material. Use spark-proof tools and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Handle under an inert atmosphere. Store protected from air. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat sparks or onen flames. containers to heat, sparks or open flames. Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Do not expose to air. Store under an inert

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

١	Chemical Name	ACGIH	NIOSH	OSHA - Final PELs	
-	Tetrakis(dimethylam ino)ethylene	none listed	none listed	none listed	
+ = = - = = = = - = = = - + = = - = = = =					

Tetrakis (dimethylamino) ethylene:

No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Wear appropriate protective gloves to prevent skin

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR :1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Appearance: Odor: pH: Vapor Pressure:

Liquid clear yellow None reported. Not available. Not available

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Vapor Density:
Evaporation Rate:
Viscosity:
                                Not available.
                                Not available.
Boiling Point:
                                 59 deg C @ 0.90 mmHg
Freezing/Melting Point:
                                 Not available.
Autoignition Temperature:
                                 Not applicable.
                                53 deg C ( 127.40 deg F) (est.) Health: 2; Flammability: 3; Reactivity: 0
Flash Point:
NFPA Rating:
Explosion Limits, Lower:
                                 Not available.
                     Upper:
                                Not available
Decomposition Temperature:
Solubility:
Specific Gravity/Density:
Molecular Formula:
                                0.8610 g/cm3
C10H24N4
Molecular Weight:
                                 200.33
                    **** SECTION 10 - STABILITY AND REACTIVITY ****
     Chemical Stability:
            Stable at room temperature in closed containers under normal storage
            and handling conditions. May discolor on exposure to air.
      Conditions to Avoid:
            Incompatible materials, ignition sources, exposure to air, excess
           heat, strong oxidants.
      Incompatibilities with Other Materials:
           Air, acids, acid chlorides, acid anhydrides, strong oxidizing agents, carbon dioxide, oxygen, chlorinated solvents.
      Hazardous Decomposition Products:
           Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.
      Hazardous Polymerization: Has not been reported.
                   **** SECTION 11 - TOXICOLOGICAL INFORMATION ****
      RTECS#:
           CAS# 996-70-3 unlisted.
      LD50/LC50:
           Not available.
      Carcinogenicity:
        Tetrakis (dimethylamino) ethylene -
      Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. Epidemiology:
            No information available.
      Teratogenicity:
No information available.
      Reproductive Effects:
No information available.
      Neurotoxicity:
           No information available.
      Mutagenicity:
           No information available.
      Other Studies:
            No information available.
                     **** SECTION 12 - ECOLOGICAL INFORMATION ****
                    **** SECTION 13 - DISPOSAL CONSIDERATIONS ****
 Chemical waste generators must determine whether a discarded chemical
is classified as a hazardous waste.
US EFA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate
 classification.
RCRA P-Series: None listed.
 RCRA U-Series: None listed.
                     **** SECTION 14 - TRANSPORT INFORMATION ****
           Shipping Name: FLAMMABLE LIQUID, N.O.S.*
Hazard Class: 3
                UN Number: 1993
      Packing Group: III
Canadian TDG
            No information available.
                     **** SECTION 15 - REGULATORY INFORMATION ****
 US FEDERAL
      TSCA
            CAS# 996-70-3 is listed on the TSCA inventory.
          Health & Safety Reporting List
         None of the chemicals are on the Health & Safety Reporting List. Chemical Test Rules
            None of the chemicals in this product are under a Chemical Test Rule.
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Section 12b

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           None of the chemicals are listed under TSCA Section 12b.
         TSCA Significant New Use Rule
           None of the chemicals in this material have a SNUR under TSCA.
         Section 302 (RO)
           None of the chemicals in this material have an RQ.
         Section 302 (TPQ)
           None of the chemicals in this product have a TPQ.
         Section 313
           No chemicals are reportable under Section 313.
     Clean Air Act:
           This material does not contain any hazardous air pollutants.
           This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
     Clean Water Act:
           None of the chemicals in this product are listed as Hazardous
           Substances under the CWA.
           None of the chemicals in this product are listed as Priority
           Pollutants under the CWA.
           None of the chemicals in this product are listed as Toxic Pollutants
           under the CWA
     OSHA .
           None of the chemicals in this product are considered highly hazardous
           by OSHA.
STATE
     Tetrakis (dimethylamino) ethylene is not present on state lists from
     CA, PA, MN, MA, FL, or NJ.
     California No Significant Risk Level:
None of the chemicals in this product are listed. European/International Regulations
     European Labeling in Accordance with EC Directives
Hazard Symbols: Not available.
           Risk Phrases:
                            R 10 Flammable
           Safety Phrases:
                            S 9 Keep container in a well-ventilated place.
S 16 Keep away from sources of ignition - No
                             smoking.
                             S 33 Take precautionary measures against static
                             discharges.
  WGK (Water Danger/Protection)
  CAS# 996-70-3: No information available. United Kingdom Occupational Exposure Limits
  Canada
           None of the chemicals in this product are listed on the DSL/NDSL list.
           This product has a WHMIS classification of B3, D2B. CAS# 996-70-3 is not listed on Canada's Ingredient Disclosure List.
  Exposure Limits
                       **** SECTION 16 - ADDITIONAL INFORMATION ****
     MSDS Creation Date: 9/02/1997 Revision #5 Date: 8/02/2000
     The information above is believed to be accurate and represents the best
     information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to
     such information, and we assume no liability resulting from its use. Users
     should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.
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