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

Tetrakis(dimethylamino)ethylene, 98%

ACROS 0411

ACS23150411

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

UNSDS Name: Tetrakis(dimethylamino)ethylene, 98%

Catalog Numbers:
- ACROS 0411
- ACS23150411

Company Identification (Europe):
- Acros Organics N.V.
  Janssen Pharmaceuticals 3a
  2244 Geel. Belgium

Company Identification (USA):
- Acros Organics
  101 Reagonet Avenue
  Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300
For emergencies in Europe, call: 353214-1457529

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

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>%</th>
<th>RINEC#</th>
</tr>
</thead>
<tbody>
<tr>
<td>996-70-3</td>
<td>Tetrakis(dimethylamino)ethylene</td>
<td>98</td>
<td>213-638-1</td>
</tr>
</tbody>
</table>

Risk Phrases: 10

**** SECTION 3 - HAZARD IDENTIFICATION ****

EMERGENCY OVERVIEW
Appearance: clear yellow, flash point: 53 deg C.


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 abdominal pain. Ingestion of large amounts may cause CNS depression.
Inhalation: Vapors may cause dizziness or suffocation. Can produce delayed pulmonary edema. Causes respiratory tract irritation with possible burns. May cause burning sensation in the throat.
Chronic: None listed.

Effects may be delayed.

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

Eye:
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 ounces 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.

Note to Physician:
Treat symptomatically and supportively.

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

General Information:
No special fire-fighting techniques. Wear self-contained breathing apparatus in pressure-demand, MSHA/MAGSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel a source of ignition and flash back. During a fire, irritant and highly toxic gases may be generated by thermal decomposition or combustion. Will burn if involved in a fire. Use water spray to cool the container. Containers may become depressed and act as a fire source. Use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool burning containers.

Extinguishing 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 burning containers. Containers may become depressed and act as a fire source. Use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

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

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

Spills/Leaks:
Avoid contact with materials (e.g., vermiculite, dry sand or earth), that can allow the mixture to heat. Clean up spills immediately. Use spatula or scoop to provide ventilation. Place under an inert atmosphere. A vapor suppressing foam may be used to reduce vapor.

**** 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 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 contact with heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances.

Storage:
Keep away from heat, sparks, and flame. Store in a cool, dry, well-ventilated area away from incompatible substances.

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

Engineering Controls:
Ventilation with an adequate general or local exhaust ventilation system to keep airborne levels to acceptable levels.

Exposure Limits:
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrakis(dimethylamino)ethylene</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
Tetrakis(dimethylamino)ethylene: none listed
No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eye:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSWA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:
Wear appropriate protective gloves to prevent skin exposure.

Respirators:
A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements. Use a respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements.

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

Physical State: Liquid

Color:
Clear yellow

Odor:
Not reported

Vapor Pressure:
Not available

Physical Characteristics:

Vapor Density: 6.91
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 99 deg C @ 0.90 mmHg
Freezing/Melting Point: Not available.
Autoignition Temperature: Not applicable.
Flash Point: 33 deg C (127.40 deg F)
NFFA Rating: (est.) Health: 2; Flammability: 3; Reactivity: 0
Explosion Limits, Lower: Not available.
Upper: Not available.
Decomposition Temperature: Not available.
Solubility: Specific Gravity/Density: 0.8610 g/cm³
Molecular Formula: 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 products formed during combustion.

Hazardous Polymerization: Has not been reported.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

RTSC:
CAS#: 996-70-3 unlisted.
LD50/LC50: Not available.
Carcinogenicity:
Toxicity (dimethylamino)ethylether - 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**

**SECTION 14 - TRANSPORT INFORMATION**

US DOT
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. Section 12b