PAGE: 1 DATE: 03/30/98 ACCT: 742982001 CAT NO: AC155810050 PO MBR: N/A INDEX: N/A **** MATERIAL SAFETY DATA SHEET **** 3-Pentanone, 98% 85342 **** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION **** MSDS Name: 3-Pentanone, 98% Catalog Numbers: AC155810000, AC155810025, AC155810050, AC155815000 Synonyme:
Diethyl ketone
Company Identification: Acros Organics N.V. One Reagent Lane
Fairlawn, NJ 07410
For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300 **** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS **** CAS# Chemical Name EINECS# 98-22-0 3-Pentanone, 98% Hazard Symbols: F Risk Phrases: 11 **** SECTION 3 - HAZARDS IDENTIFICATION **** **EMERGENCY OVERVIEW** Appearance: clear colourless liquid. Target Organs: None. Potential Health Effects The toxicological properties of this material have not been investigated. Use appropriate procedures to prevent opportunities for direct contact with the skin or eyes and to prevent Inhalation. **** SECTION 4 - FIRST AID MEASURES **** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Do NOT induce vomiting. Give milk or water with activated charcoal if available. Inhalation: Remove from exposure to fresh air immediately. Notes to Physician: Treat symptomatically and supportively. **** SECTION 5 - FIRE FIGHTING MEASURES **** General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:
In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Autoignition Temperature: 445 deg C (833.00 deg F)

Flash Point: 13 deg C (55.40 deg F)

NFPA Rating: health-1; flammability-3; reactivity-0

Explosion Limits, Lower: 1.60 vol %

Upper: 7.70 vol % General Information: **** SECTION 6 - ACCIDENTAL RELEASE MEASURES **** General Information: Use proper personal protective equipment as indicated in Section 8. Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container. Clean up spills immediately, observing precautions in the Protective Equipment section. **** SECTION 7 - HANDLING and STORAGE **** Handling:
Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhelation.

PAGE: 2 03/30/98 742982001 DATE: ACCT: INDEX: N/A CAT NO: AC155810050 PO NBR: N/A Storage: Store in a cool, dry place. Keep container closed when not in use **** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION **** Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborns concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels: Exposure Limits Chemical Name **ACGIH** NIOSH OSHA - Final PELs 200 ppm TWA; 705 none listed mg/m3 TWA % 200 ppm ; 705 mg/m3; (-) ppm STEL; (-) mg/m3 3-Pentanone, 98% STEL **OSHA Vacated PELs:** 3-Pentanone, 98%: 200 ppm TWA; 705 mg/m3 TWA Personal Protective Equipment Weer safety glasses and chemical goggles if splashing is possible Wear appropriate protective gloves and clothing to prevent skin exposure. Wear appropriate protective clothing to minimize contact with skin. Respirators: Weer a NIOSH/MSHA-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. **** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES **** Physical State: Not available. Appearance: Odor: Not available None reported. pH: Vapor Pressure: Not available. 20 mbar @ 20 C Vapor Density: Evaporation Rate: Not available. Not available. 0.469 mPas 20 d 102 deg C @ 760.00mm Hg 0 deg C Evaporation Rate: Not available.
Viscosity: 0.489 mPas 20 d
Boiling Point: 102 deg C @ 760.00
Preezing/Melting Point: 0 deg C
Decomposition Temperature: Not available.
Solubility: 4.7 g/100ml (20 c)
Specific Gravity/Density: 8160g/cm3
Molecular Formula: 55H100
Molecular Weight: 86.13 **** SECTION 10 - STABILITY AND REACTIVITY **** Chemical Stability:
Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, strong oxidants.
Incompatibilities with Other Materials:
Oxidizing agents - strong bases - reducing agents.
Hazardous Decomposition Products:
Carbon monoxide, irritating and toxic fumes and gases, carbon disvide Hazardous Polymerization: Has not been reported **** SECTION 11 - TOXICOLOGICAL INFORMATION **** RTECS#: CAS# 96-22-0: SA8050000 CAS# 96-22-0: Oral, rat: LD50 = 2140 mg/kg; Skin, rabbit: LD50 = 20 mL/kg. Carcinogenicity: 3-Pentanone, 98% Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. **** SECTION 12 - ECOLOGICAL INFORMATION **** **Ecotoxicity:**

Not available.

Safety Phrases: \$ 16 keep away from sources of Ignition - No

PAGE: 4 DATE: 03/30/98 ACCT 742982001 PO NBR: N/A INDEX: N/A CAT NO: AC155810050

smoking. S 33 Take precautionary measures against static discharges. WGK (Water Danger/Protection)
CAS# 96-22-0: 1

Canada

CAS# 96-22-0 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of 82, D28.

CAS# 96-22-0 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 96-22-0 Is not listed on Canada's Ingredient Processore Limits

CAS# 96-22-0: OEL-AUSTRALIA:TWA 200 ppm (705 mg/m3). OEL-BELGIUM:TWA 200 ppm (705 mg/m3). OEL-DENMARK:TWA 200 ppm (700 mg/m3). OEL-FRANCE:

TWA 200 ppm (705 mg/m3). OEL-THE NETHERLANDS:TWA 200 ppm (705 mg/m3). OEL-SWITZERLAND:TWA 200 ppm (705 mg/m3). OEL-UNITED KINGDOM:TWA 200 ppm (700 mg/m3):STEL 250 ppm. OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA c heck ACGIH TLV. OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 3/01/1994 Revision #2 Date: 12/12/1997

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of 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 retermine the suitability of the information for their particular purposes. In no way shall Fisher 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 Fisher has been advised of the possibility of such damages.