Material Safety Data Sheet
2-Pentanone, 97%

ACC# 00882

Section 1 - Chemical Product and Company Identification

MSDS Name: 2-Pentanone, 97%
Catalog Numbers: AC130000000, AC130000010, AC130000050, AC130005000
Synonyms: Methyl Propyl Ketone
Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, 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	Percent	EINECS/ELINCS
107-87-9	2-Pentanone	97	203-528-1

Hazard Symbols: XN F
Risk Phrases: 11 22

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear colorless to very faint yellow liquid. Flash Point: 7 deg C. **Warning! Flammable liquid and vapor.** May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May be harmful if swallowed.
Target Organs: None.

Potential Health Effects

Eye: May cause eye irritation.
Skin: May cause skin irritation.
Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.
Inhalation: May cause respiratory tract irritation. Vapors may cause dizziness or suffocation.
Chronic: Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated exposure may cause nausea, dizziness, and headache.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin: Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not

breathing, give artificial respiration. If breathing is difficult, give oxygen.
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. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.
Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Water may be ineffective. For large fires, use water spray, fog or alcohol-resistant foam. Do NOT use straight streams of water. Cool containers with flooding quantities of water until well after fire is out.
Flash Point: 7 deg C (44.60 deg F)
Autoignition Temperature: 505 deg C (941.00 deg F)
Explosion Limits, Lower:1.50 vol %
Upper: 8.20 vol %
NFPA Rating: 2 - health, 3 - flammability, 0 - instability

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, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2-Pentanone	200 ppm TWA; 250 ppm STEL	150 ppm TWA; 530 mg/m3 TWA 1500 ppm IDLH	200 ppm TWA; 700 mg/m3 TWA

OSHA Vacated PELs: 2-Pentanone: 200 ppm TWA; 700 mg/m3 TWA
Personal Protective Equipment
Eyes: 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.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective gloves to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear colorless to very faint yellow
Odor: alcohol-like
pH: Not available.
Vapor Pressure: 16 mbar @ 20 C
Vapor Density: 3.0
Evaporation Rate: Not available.
Viscosity: 0.473 cP 25 deg C
Boiling Point: 100.0 - 101.0 deg C @ 760.00m
Freezing/Melting Point:78 deg C
Decomposition Temperature: Not available.
Solubility: 4 g/100ml (20 c)
Specific Gravity/Density:.8120g/cm3
Molecular Formula:C5H10O
Molecular Weight:86.13

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, ignition sources, excess heat, strong oxidants.
Incompatibilities with Other Materials: Strong oxidizing agents, bromine trifluoride.
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 107-87-9: SA7875000
LD50/LC50:
CAS# 107-87-9:
Oral, mouse: LD50 = 1600 mg/kg;
Oral, rat: LD50 = 1600 mg/kg;
Skin, rabbit: LD50 = 6500 mg/kg;
Carcinogenicity:
CAS# 107-87-9: 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 data available.

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: On land, will leach into soil or volatilize into atmosphere. In water, will volatilize into atmosphere. Very little biodegradation.
Physical: No information available.
Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA 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

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	METHYL PROPYL KETONE				No information available.
Hazard Class:	3				
UN Number:	UN1249				
Packing Group:	II				

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 107-87-9 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
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.
SARA

CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 107-87-9: acute, flammable.
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
CAS# 107-87-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.
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:
XN F
Risk Phrases:
R 11 Highly flammable.
R 22 Harmful if swallowed.

Safety Phrases:
S 16 Keep away from sources of ignition - No smoking.
S 33 Take precautionary measures against static discharges.
S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection)
CAS# 107-87-9: 1
Canada - DSL/NDSL
CAS# 107-87-9 is listed on Canada's DSL List.
Canada - WHMIS
This product has a WHMIS classification of B2, D2B.
Canadian Ingredient Disclosure List
CAS# 107-87-9 is listed on the Canadian Ingredient Disclosure List.
Exposure Limits
CAS# 107-87-9: OEL-AUSTRALIA:TWA 200 ppm (700 mg/m3);STEL 250 ppm (875 mg/m3) OEL-BELGIUM:TWA 200 ppm (705 mg/m3);STEL 250 ppm (881 mg/m3) OEL-DENMARK:TWA 200 ppm (700 mg/m3) OEL-FINLAND:TWA 200 ppm (700 mg/m3);STEL 250 ppm (875 mg/m3) OEL-FRANCE:TWA 200 ppm (700 mg/m3) OEL-GERMANY:TWA 200 ppm (700 mg/m3) OEL-THE NETHERLANDS:TWA 200 ppm (700 mg/m3) OEL-THE PHILIPPINES:TWA 200 ppm (700 mg/m3) OEL-POLAND:TWA 100 mg/m3 OEL-RUSSIA:STEL 200 mg/m3 OEL-SWITZERLAND:TWA 200 ppm (700 mg/m3);STEL 400 ppm OEL-TURKEY:TWA 200 ppm (700 mg/m3) OEL-UNITED KINGDOM:TWA 200 ppm (700 mg/m3);STEL 250 ppm OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 2/03/1998
Revision #3 Date: 3/18/2003

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 event 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.