

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

Cumene, 99.9%
 ACROS02169

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

MSDS Name: Cumene, 99.9%
 Catalog Numbers:
 AC329730000, AC329730050, AC329735000
 Synonyms:
 Benzene, isopropyl; Benzene, (1-methylethyl)-; Cumol; 2-Fenilpropano;
 Isopropilbenzenz; Isopropyl benzene; Isopropylbenzol;
 Isopropyl-benzol; (1-Methylethyl)benzene; 2-Phenylpropane; Propane,
 2-phenyl
 Company Identification (Europe): Acros Organics N.V.
 Janssen Pharmaceuticaalaa 3a
 2440 Geel, Belgium
 Company Identification (USA): Acros Organics
 One Reagent Lane
 Fairlawn, NJ 07410
 For information in North America, call: 800-ACROS-01
 For information in Europe, call: 0032(0) 14575211
 For emergencies in the US, call CHEMTREC: 800-424-9300
 For emergencies in Europe, call: 0032(0) 14575299

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

CAS#	Chemical Name	%	EINECS#
98-82-8	Cumene	99.9%	202-704-5

Hazard Symbols: XI
 Risk Phrases: 10 36/37/38

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

EMERGENCY OVERVIEW

Appearance: clear, colorless. Flash Point: 31 deg C.
 Warning! Flammable liquid. May be harmful if swallowed. May cause central nervous system depression. Aspiration hazard. May cause kidney damage. May cause lung damage. Causes eye and skin irritation. Causes digestive and respiratory tract irritation. May cause liver and spleen damage.
 Target Organs: Kidneys, central nervous system, liver, spleen, lungs, eyes, skin.

Potential Health Effects

Eye:
 Causes eye irritation. May cause conjunctivitis.
 Skin:
 Causes skin irritation. Exposure may cause irritation characterized by redness, dryness, and inflammation.
 Ingestion:
 Aspiration hazard. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal. May be harmful if swallowed.
 Inhalation:
 Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation. Causes irritation of the mucous membrane and upper respiratory tract.
 Chronic:
 Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation may cause effects similar to those of acute inhalation. Repeated exposure may cause damage to the spleen. Prolonged exposure can injure liver, kidneys and lungs.

**** 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 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 to fresh air immediately. If breathing is difficult, give oxygen. DO NOT use mouth-to-mouth respiration. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a

bag and a mask.
 Notes to Physician:
 Persons with kidney disease, chronic respiratory disease, liver disease, or skin disease may be at increased risk from exposure to this substance. Treat symptomatically and supportively.

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

General Information:
 Containers can build up pressure if exposed to heat and/or fire. 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. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread 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. May polymerize explosively when involved in a fire.
 Extinguishing Media:
 For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area where the water cannot be contained. For large fires, use water spray, fog or alcohol-resistant foam. 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., dry sand or earth), then place into a chemical waste container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

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

Handling:
 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. Do not breathe dust, vapor, mist, or gas. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Do not ingest or inhale. 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 tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

**** 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.

Chemical Name	Exposure Limits		
	ACGIH	NIOSH	OSHA - Final PELs
Cumene	50 ppm; (skin - potential for cutaneous absorption)	50 ppm TWA; 245 mg/m3 TWA; 900 ppm IDLH (10 percent lower explosive limit)	50 ppm TWA; 245 mg/m3 TWA

OSHA Vacated PELs:
 Cumene:
 50 ppm TWA; 245 mg/m3 TWA

Personal Protective Equipment

Eye:
 Wear appropriate protective eyeglasses or chemical

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safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Use polyvinyl alcohol or fluorocarbon rubber (viton) gloves.

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: Liquid
Appearance: clear, colorless
Odor: Sharp aromatic odor
pH: Not available.
Vapor Pressure: 10 mm Hg @ 38.3 C
Vapor Density: 4.1
Evaporation Rate: Very low
Viscosity: 0.79 mPas 20 de
Boiling Point: 152 - 154 deg C @ 760.00mm Hg
Freezing/Melting Point: -96 deg C
Autoignition Temperature: 420 deg C (788.00 deg F)
Flash Point: 31 deg C (87.80 deg F)
NFPA Rating: (est.) Health: 2; Flammability: 3; Reactivity: 1
Explosion Limits, Lower: 0.80 vol %
Upper: 6.00 vol %
Decomposition Temperature:
Solubility: Insoluble.
Specific Gravity/Density: .8640g/cm3
Molecular Formula: C9H12
Molecular Weight: 120.19

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability: Stable under normal temperatures and pressures. Polymerization may occur upon heating.
Conditions to Avoid: Incompatible materials, ignition sources, excess heat, strong oxidants.
Incompatibilities with Other Materials: Nitrites, oleum, chlorosulfonic acid, oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: May occur.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#: CAS# 98-82-8: GR8575000
LD50/LC50: CAS# 98-82-8: Inhalation, mouse: LC50 =10 gm/m3/7H; Oral, mouse: LD50 = 12750 mg/kg; Oral, rat: LD50 = 1400 mg/kg; Skin, rabbit: LD50 = 12300 mg/kg.
Carcinogenicity: Cumene - 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: Open Irritation test: Administration onto the skin (rabbit) 10 mg/24H (Mild) Standard Draize test: Administration into the eye (rabbit) = 100 mg/24H (Moderate).

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity: Water flea Daphnia: EC50 =0.6 mg/L; 48Hr; Unspecified Bacteria: Phytobacterium phosphoreum: EC50 = 1.48 mg/L; 5,15,30 min; Microtox test Fish: Fathead Minnow: LC50 = 6.32 mg/L; 96 Hr; Flow-through at 24.5 C (pH 7.58) When released to soil, cumene is expected to biodegrade and may volatilize from the soil surface. Cumene is expected to strongly adsorb to soils and is not expected to leach to groundwater. When released to water, cumene is expected to

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volatilize with an estimated half-life of 5-14 days and to biodegrade rapidly. Compared to these processes, aqueous photooxidation by hydroxyl radicals (estimated half-life 0.7 years) and peroxy radicals

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations. RCRA P-Series: None listed. RCRA U-Series: CAS# 98-82-8: waste number U055; (Ignitable waste).

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
Shipping Name: **SMALL QTY EXCEPTION SEE 49 CFR 173.4**
Hazard Class: 110
UN Number: UN0001
Packing Group:
Canadian TDG
No information available.

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL
TSCA
CAS# 98-82-8 is listed on the TSCA inventory.
Health & Safety Reporting List
CAS# 98-82-8: Effective Date: December 28, 1984; Sunset Date: December 28, 1994
Chemical Test Rules
CAS# 98-82-8: Testing required by: manufacturers; importers; processor
Section 12b
CAS# 98-82-8: 4 term/12b
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA
Section 302 (RQ)
CAS# 98-82-8: final RQ = 5000 pounds (2270 kg)
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 98-82-8: acute, flammable, reactive.
Section 313
This material contains Cumene (CAS# 98-82-8, 99.9%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.
Clean Air Act:
CAS# 98-82-8 is listed as a hazardous air pollutant (HAP). 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
Cumene can be found on the following state right to know lists: California, New Jersey, Florida, 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: XI
Risk Phrases:
R 10 Flammable.
R 36/37/38 Irritating to eyes, respiratory system and skin.
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# 98-82-8: 1
United Kingdom Occupational Exposure Limits
CAS# 98-82-8: OES-United Kingdom, TWA 25 ppm TWA; 125 mg/m3 TWA
CAS# 98-82-8: OES-United Kingdom, STEL 75 ppm STEL; 375 mg/m3 STEL
Canada
CAS# 98-82-8 is listed on Canada's DSL/NDSL List.
This product has a WHMIS classification of B2, D2B.
CAS# 98-82-8 is not listed on Canada's Ingredient Disclosure List.
Exposure Limits

CAS# 98-82-8: OEL-AUSTRALIA:TWA 50 ppm (245 mg/m3);Skin
OEL-AUSTRIA:TWA 50 ppm (245 mg/m3);Skin
OEL-BELGIUM:TWA 50 ppm (246 mg/m3);Skin
OEL-DENMARK:TWA 50 ppm (245 mg/m3);Skin
OEL-FINLAND:TWA 50 ppm (245 mg/m3);STEL 75 ppm (370 mg/m3);Skin
OEL-FRANCE:TWA 50 ppm (245 mg/m3);Skin
OEL-GERMANY:TWA 50 ppm (245 mg/m3);Skin
OEL-HUNGARY:TWA 80 mg/m3;STEL 100 mg/m3
OEL-THE NETHERLANDS:TWA 50 ppm (245 mg/m3);Skin
OEL-THE PHILIPPINES:TWA 50 ppm (245 mg/m3);Skin
OEL-RUSSIA:STEL 50 mg/m3
OEL-SWEDEN:TWA 25 ppm (120 mg/m3);STEL 35 ppm (17 mg/m3);Skin
OEL-SWITZERLAND:TWA 50 ppm (245 mg/m3);Skin
OEL-UNITED KINGDOM:TWA 50 ppm (245 mg/m3);STEL 75 ppm;Skin
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: 1/31/2000 Revision #2 Date: 4/30/2000

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.
