**DATE**: 09/23/00  **ACCT**: 498235001  **INDEX**: 002357281  **PAGE**: 1  **PAGE**: 2

### MATERIAL SAFETY DATA SHEET

**Cumuene**: 99.9%

**ACROS02169**

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

**MSDS Name**: Cumene

**CAS No.**: 99.9%

**Catalog Numbers**: ACROS02169, ACROS02170, ACROS02171

**Synonyms**: Monomethylbenzene, 1(2-Methyl-1-propyl)benzene, 1-(2-Methyl-1-propyl)-benzene, 1-(2-Methylpropyl)benzene, 1-(2-Methylpropyl)benzene

**Trade Name**: Acros Organics N.V.

**Company Identification (Europe)**: Janssen Pharmaceutica NV, Janssen Pharmaceutica, 3a 2440 Gent, Belgium

**Company Identification (USA)**: Acros Organics, One Reactant Lane, Fairlawn, NJ 07410

**For information in North America, call**: 800-ACROS001

**For information in Europe, call**: 0032(0) 14575211

**For emergencies in Europe, call**: 0032(0) 14575299

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

**Hazard Symbols**: X1

**Risk Phrases**: 10 36/17/38

**Hazard Class**: INH

**Hazard Code**: 7048-8

**SECTION 3 - HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

**Appearance**: Colorless, flash point: 31 deg C

**Warning**: Flammable liquid. May be harmful if swallowed. May cause central nervous system depression. Avoid inhalation. May cause kidney damage. May cause lung damage. Avoid contact with eyes and skin. Irritation of eyes and respiratory tract. 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**
- Inhalation hazard. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Inhalation 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 convulsions and respiratory effects in high concentrations may cause dizziness or suffocation. Causes irritation of the mucous membranes and respiratory tract.

**Chronic**
- Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation may cause similar to those of acute inhalation.

**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 unconscious and alert, give 2-4 oz of water or milk. 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 Physicians**
- 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. Do not use high pressure water spray; can be flammable. May form flammable mixtures with air. Vapors can travel to a source of ignition and flash back. Consider use of water spray to cool exposed containers. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is more water reactive. Material is more reactive in water. May react with water violently when involved in a fire. Use aClass A fire extinguisher.

**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 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 5 - 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. Neutralize chemical by allowing chemical reaction to be self-contained. Use appropriate operation and protective clothing. Do not use water in an area where the water cannot be contained. Use a water spray to cool exposed containers. Use water spray to keep fire-exposed containers cool. Do not use water in an area where the water cannot be contained. Use water spray to cool exposed containers. Use water spray to keep fire-exposed containers cool.

**SECTION 7 - HANDLING AND STORAGE**

**Handling**
- Use only in a well ventilated area. Ground and contain when transferring material. Use spark-proof tools and equipment. Avoid contact with eyes, skin, and clothing. Do not use ash, dust, vapor, mist, or gas. Empty containers retain product residue; avoid contact. Do not leave empty containers open. Do not use water in an area where the water cannot be contained.

**Storage**
- Keep away from heat, sparks, and flame. Keep away from sources of ignition. When in use, store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammable.

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

**Engineering Controls**
- Facilities storing or utilizing this material should be equipped with a good ventilation system and a safety shower and eye wash facility. Use general or local exhaust ventilation to keep airborne levels to acceptable levels.

**Exposure Limits**

**Chemical Exposure Limits**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumene</td>
<td>50 ppm TWA: 245 mg/m3 TWA</td>
</tr>
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</tr>
</tbody>
</table>

**OSHA Vented PELs**
- 50 ppm TWA: 245 mg/m3 TWA

**Personal Protective Equipment**
- Eyes: Wear appropriate protective eyewear or chemical splash goggles.
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: 0.73 mPa.s @ 20 de
Boiling Point: 152 - 154 degree C @ 760.00mm Hg
Autoignition Temperature: 230 degree C ( 700.00 degree F)
Flash Point: 31 degree C ( 87.80 degree F)
NFPA Rating: (ext.) Health: 2; Flammability: 3; Reactivity: 1
Explosion Limits, Lower: 0.80 vol %
 Upper: 6.00 vol %
Decomposition Temperature: Insoluble.
Specific Gravity/Density: 0.8640/cm3
Molecular Formula: CN9H12
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
oxidizers, water, sodium hydroxide, strong oxidizing agents.

Incompatibilities with Other Materials: Oxidizing agents, sodium hydroxide.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon
dioxide, hydrochloric acid.

Hazardous Polymerisation: May occur.

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

MTBE:
CAS #: 98-82-8; GHS75000
LD50/LC50:
CAS #: 98-82-8: Inhalation, mouse: LC50 =40 mg/m3/7H; Oral, mouse: LC50 = 12750 mg/kg; Oral, rat: LD50 = 1400 mg/kg; Skin, rabbit: LD50 = 13000 mg/kg.
Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information available.
Toxicology: 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. (Minimal irritation test: Administration into the eye (rabbit) = 100 mg/24H (Moderate).

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

Biodegradability: Water flea Daphnia: EC50 =0.6 mg/l; 48hr; Unspecified Bacteria;
Phytotacterium phosphoreum: EC50 = 1.48 mg/l; 5.15cm 30 min; Microtox
test: Photobacterium phosphoreum: EC50 = 0.48 mg/l; 96 hr; Flow-through at
25.5 C ( pH 7.50) When released to soil, cumene is expected to
biodegrade and not excrete to ground water. When released to water, cumene is expected to
volatilize with an estimated half-life of 5-14 days and to biodegrade
rapidly. Compared to these processes, aqueous photolysis by
hydroxyl radical (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 F-Series: None listed.
RCRA U-Series: None listed.
SARA 58-82-8: Waste number 0055; (Ignitable waste).

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

US DOT
Shipping Name: *SMALL QTY EXCEPTION SEE 49 CFR 173.4*
Hazard Class: 110
UN Number: UN1003
Packing Group: Canadian TDG
No information available.

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

US FEDERAL
TSCA
CAS #: 98-82-8 is listed on the TSCA inventory.
Section 302 (RQ) Chemical物质; Section 302 (TPQ)

SARA:
Section 302 (RQ) Chemical Substance; Section 302 (TPQ)
Section 302 (TPQ)

SARA Codes:
CAS #: 98-82-8: acute, flammable, reactive.
Section 313 This material contains Cumene (CAS 98-82-8; 99 98), which is subject to
the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act:
This subject has been included as a hazardous air pollutant (HAP).
Clean Water Act:
This material is included in the CWA priority pollutant list for this product.
SARA:
Chemicals in this product are subject to the reporting requirements of
SARA Title III and 40 CFR Part 372.

State:
Cumene is listed as a hazardous air pollutant (HAP) in the

OSHA:
Some of these chemicals in this product are considered highly hazardous
by OSHA.

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State:
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OSHA:
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by OSHA.
CAS# 98-82-8; ORL-AUSTRALIA: TWA 50 ppm (245 mg/m³); Skin
ORL-AUSTRIA: TWA 50 ppm (245 mg/m³); Skin
ORL-BELGIUM: TWA 50 ppm (245 mg/m³); Skin
ORL-DENMARK: TWA 50 ppm (245 mg/m³); Skin
ORL-FINLAND: TWA 50 ppm (245 mg/m³); STEL 75 ppm (370 mg/m³); Skin
ORL-FRANCE: TWA 50 ppm (245 mg/m³); Skin
ORL-GERMANY: TWA 50 ppm (245 mg/m³); Skin
ORL-HUNGARY: TWA 50 ppm (245 mg/m³); STEL 100 mg/m³
ORL-THE NETHERLANDS: TWA 50 ppm (245 mg/m³); Skin
ORL-THE PHILIPPINES: TWA 50 ppm (245 mg/m³); Skin
ORL-RUSSIA: STEL 90 mg/m³
ORL-SWEDEN: TWA 25 ppm (120 mg/m³); STEL 35 ppm (17 mg/m³); Skin
ORL-SWITZERLAND: TWA 50 ppm (245 mg/m³); Skin
ORL-UNITED KINGDOM: TWA 50 ppm (245 mg/m³); STEL 75 ppm; Skin
ORL IN BULGARIA, COLOMBIA, JORDAN, KOREA check AGCH TIV
ORL IN NEW ZEALAND, SINGAPORE, VIETNAM check AGCH TIV

*** SECTION 16 - ADDITIONAL INFORMATION ***

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, however arising, even if the company has been advised of the possibility of such damages.