CUMENE

Material Safety Data Sheet Mallinckrodt Chemical Inc. P.O. Box 800 Paris, Kentucky 40362

Emergency Telephone Number 314-539-1600

Effective Date: 04-06-89 Supersedes 01-21-87

PRODUCT IDENTIFICATION:

Synonyms: Benzene, (1-methylethyl)-; cumene 99%; cumol

Formula CAS No.: 98-82-8

Hazardous Ingredients: Cumene.

Molecular Weight: 120.20

Chemical Formula: C9H12

PRECAUTIONARY MEASURES

WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES, AND UPPER RESPIRATORY TRACT. COMBUSTIBLE. AFFECTS CENTRAL NERVOUS SYSTEM.

Do not breathe vapor. Avoid contact with eyes, skin and clothing. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Keep away from heat, sparks and flame.

EMERGENCY FIRST AID

If swallowed, call a physician immediately. If swallowed, DO NOT INDUCE ⁵ DMITING! Aspiration hazard. Call a physician immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. SEE SECTION 5.

Physical Data	SECTION 1

Appearance: Colorless liquid

Odor: Sharp penetrating aromatic odor.

Solubility: Insoluble in water.

Boiling Point: 152-154 C (306-309 F)

Melting Point: -96 C (-141 F)

Vapor Pressure (mm Hg):10 @ 383 C

Vapor Density (Air=1):4.1

Evaporation Rate: Very low

Specific Gravity: 0.864

SECTION 2

NFPA Ratings: Health: 2 Flammability: 3 Reactivity: 0

Fire and Explosion Information Fire:

Combustible Liquid. Flashpoint: 44 C (111 F). (closed cup). Autoignition temperature: 425 C (797 F). Flammable limits in air, % by volume: lel: 0.9; uel: 6.5

Explosion:

Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

Fire Extinguishing Media:

Page 2 Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Reactivity Data	SECTION 3
Stability:	Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Strong oxidizers.

Leak/Spill Disposal Information SECTION 4

Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Contain and recover liquid when possible. Collect as hazardous waste and atomize in a suitable RCRA approved combustion chamber, or absorb with vermiculite, dry sand, earth or similar material for disposal as hazardous waste in a RCRA approved facility. Do not flush to sewer! Reportable Quantity (RQ) (CWA/CERCLA) : 5000 lbs. Ensure compliance with local, state and federal regulations.

SECTION 5

Health Hazard Information A. Exposure/Health Effects

Inhalation:

Vapors or mist irritates the mucous membranes and upper respiratory tract. Affects the central nervous system; symptoms may include dizziness, drowsiness, slight incoordination and unconsciousness.

Ingestion: Swallowing can cause symptoms of sore throat, coughing, abdominal pain, and vomiting. Central nervous system effects may occur; see inhalation. Swallowing may cause droplets to enter the lungs (aspiration) with the risk of pneumonia.

Skin Contact: May cause skin irritation with redness. Skin absorption can occur; absorption through the skin proceeds slowly.

Eye Contact: Vapor or mist irritates the eyes.

Chronic Exposure: Prolonged or repeated exposure may cause skin rash. Damage to the lungs, liver, and kidneys may occur.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance. The use of alcoholic beverages enhances the toxic effects. Inhalation:

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ngestion:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

If swallowed, DO NOT INDUCE VOMITING! Aspiration hazard. Call a physician immediately.

Skin Exposure: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Eye Exposure:

Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY (RTECS, 1986)

Oral rat LD50: 1400 mg/Kg Skin rabbit LD50: 12300 mg/Kg Inhalation rat LC50: 8000 ppm/4H

Occupational Control Measures	3	SECTION 6
Airborne Exposure Limits:		Permissible Exposure Limit (PEL): 50 ppm skin -ACGIH Threshold Limit Value (TLV):

50 ppm (TWA) skin

details.

Ventilation System:

Personal Respirators (NIOSH Approved)

Skin Protection:

Eye Protection:

If the TLV is exceeded a full facepiece chemical cartridge respirator may be worn, in general, up to 100 times the TLV or the maximum use concentration specified by the respirator supplier, whichever is less. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

A system of local and/or general exhaust is

source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for

Airborne Exposure Limits. Local exhaust

recommended to keep employee exposures below the

ventilation is generally preferred because it can control the emissions of the contaminant at its

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this Maintain eye wash fountain and material. quick-drench facilities in work area.

Storage and Special Information

SECTION 7

Protect against physical damage. Outside or detached storage is preferred. Inside storage should be in a standard flammable liquids storage room or cabinet. Separate from oxidizing materials. Storage and use areas should be No Smoking areas.

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Addendum to Material Safety Data Sheet

Page 4

REGULATORY STATUS

This Addendum Must Not Be Detached from the MSDS Identifies SARA 313 substance(s)

Any copying or redistribution of the MSDS must include a copy of this addendum

Hazard Categories for SARA Section 311/312 Reporting

Acute	Chronic	Fire	Pressure	Reactive	
Х	х	х			

	SARA	EHS	SARA Sec. 313 Chemicals		CERCLA	RCRA
Product or Components of Product:	Sec. RQ	302 TPQ	Name List	Chemical Category	Sec.103 RQ lbs	Sec. 261.33
CUMENE (98-82-8)	No	No	Yes	No	No	No

SARA Section 302 EHS RQ: Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPQ: Threshold Planning Quantity of Extremely Hazardous substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals: Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.

CERCLA Sec. 103: Comprehensive Environmental Response, Compensation and Liability Act (Superfund) Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4

RCRA:

Resource Conservation and Recovery Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

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