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**MATERIAL
SAFETY
DATA SHEET**
No. 9

SECTION 1. PRODUCT INFORMATION

NAME: 1,3 - Butadiene

TRADE NAME AND SYNONYMS: 1,3 - Butadiene; Biethylene; Erythrene; Vinyl Ethylene; Butadienes, stabilized (D.O.T.)

APPEARANCE AND ODOR: Colorless liquid and vapor with an aromatic odor odor

CHEMICAL NAME AND SYNONYMS: 1,3 - Butadiene

CAS #: 106-99-0

DOT I.D. No: UN 1010 RQ 10 (4.54)

DOT HAZARD CLASS: Division 2.1

CHEMICAL FORMULA: CH₂CHCHCH₂ or C₄H₆

CHEMICAL FAMILY: Diolefin

ISSUE DATE AND REVISIONS: Revised June 2006

SECTION 2. HEALTH HAZARD DATA

EMERGENCY OVERVIEW: 1,3-Butadiene is a volatile, flammable liquid; the vapor of which is approximately 2 times heavier than air. It is a suspected human carcinogen.

Inhalation: Moderate concentrations cause dizziness, drowsiness, blurring of vision and nausea. In higher concentrations, it is an anesthetic and can cause respiratory paralysis and death.

Skin and Eye Contact: It is irritating to mucous membranes and the skin. Due to its rapid rate of evaporation, it can cause tissue freezing or frostbite on dermal contact.

TIME WEIGHTED AVERAGE EXPOSURE LIMIT: 1,3 - Butadiene has a TWA of 2 Molar PPM with an A2 (suspected human carcinogen) carcinogen rating (ACGIH 2005). OSHA 2005 lists a PEL (8 hr. TWA) of 1 Molar PPM with an STEL of 5 Molar PPM. Also see 29 CFR 1910.1051 where an "action level" is defined as 0.5 Molar PPM (airborne concentration).

TOXICOLOGICAL PROPERTIES: It is an asphyxiant and anesthetic causing respiratory paralysis in high concentrations. Repeated exposures have given no indication of cumulative action. Vapors cause skin rash and are irritating to the eyes and mucous membranes.

IARC and NTP studies and reports show sufficient evidence for animals and insufficient evidence for humans for 1,3 - Butadiene as a carcinogen.

Frostbite effects are the change in the color of the skin to gray or white possibly followed by blistering.

Persons in ill health where such illness would be aggravated by exposure to 1,3 - Butadiene should not be allowed to work with or handle this product.