

化 学 品 安 全 技 术 说 明 书

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MSDS标题

HEXAMETHYLMELAMINE MSDS报告

产品标题

六甲三聚氰胺;六甲蜜胺

CAS号

645-05-6

化学品及企业标识

PRODUCT NAME

HEXAMETHYLMELAMINE

NFPA

Flammability	1
Toxicity	2
Body Contact	1
Reactivity	0
Chronic	2

SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

PRODUCT USE

Antineoplastic agent given by mouth for treatment of ovarian carcinoma (stage III and IV) and other solid tumours. Metabolism of hexamethylmelamine is a requirement for cytotoxicity. Synthetic monohydroxymethylmelamines, and products of hexamethylmelamine metabolism, in vitro and in vivo, form covalent adducts with tissue macromolecules including DNA. Whether such adducts are responsible for antineoplastic activity is

unclear.

SYNONYMS

C9-H18-N6, "melamine, hexamethyl-", "1, 3, 5-triazine-2, 4, 6-triamine, N, N, N'N'N'N'N'N'-hexamethyl-", "1, 3, 5-triazine-2, 4, 6-triamine, N, N, N'N'N'N'N'N'-hexamethyl-", "s-triazine, 2, 4, 6-tris(dimethylamino)-", "s-triazine, 2, 4, 6-tris(dimethylamino)-", "2, 4, 6-tris(dimethylamino)-s-triazine", "2, 4, 6-tris(dimethylamino)-s-triazine", "2, 4, 6-tris(dimethylamino)-1, 3, 5-triazine", "2, 4, 6-tris(dimethylamino)-1, 3, 5-triazine", Altretamine, ENT-50852, Hemel, Hexastat, HMM, NCI-C50259, NSC-13875, antineoplastic

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

Harmful if swallowed.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Accidental ingestion of the material may be damaging to the health of the individual. Considered an unlikely route of entry in commercial/industrial environments. Triazine derivatives have been shown to cause structural damage to the liver in animal studies.

EYE

Although the material is not thought to be an irritant, direct contact with the eye may produce transient discomfort characterized by tearing or conjunctival redness (as with windburn). The dust may produce eye discomfort causing smarting, pain and redness.

SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by skin contact/absorption and inhalation of generated dust. Anti-cancer drugs used for chemotherapy can depress the bone marrow with reduction in the number of white blood cells and platelets and bleeding. Susceptibility to infections and bleeding is increased, which can be life-threatening. Digestive system effects may include inflammation of the mouth cavity, mouth ulcers, esophagus inflammation, abdominal pain and bleeds, diarrhea, bowel ulcers and perforation. Reversible hair loss can result and wound healing may be delayed. Long-term effects on the gonads may cause periods to stop and inhibit sperm production. Most anti-cancer drugs can potentially cause mutations and birth defects, and coupled with the effects of the suppression of the immune system, may also cause cancer. Hexamethylmelamine is embryotoxic in rats (142-570 mg/kg/day) and rabbits (1040 mg/kg/day) and teratogenic in rats (570 mg/kg/day) and may cause foetal damage in humans. Doses of 120 mg/kg/day administered to female rats 14 days prior to breeding through the gestation period produced no adverse effects on fertility but did decrease post-natal survival. The drug was embryocidal at 240 mg/m³/day. When administered to male rats for approximately 60 days prior to mating, testicular atrophy, reduced fertility, focal or diffuse aspermatogenesis, and a possible dominant lethal mutagenic effect were noted. Administration of 460-1800 mg/kg/day to male rats for 10 days decreased spermatogenesis and atrophied testes, seminal vesicles and the ventral prostate. The drug bears structural similarities to the alkylating agent, triethylenemelamine, which has been shown to be carcinogenic in animals.