

化 学 品 安 全 技 术 说 明 书

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MSDS标题

HYDANTOIN MSDS报告

产品标题

咪唑烷基二酮;乙内酰脲;2,4-咪唑啉二酮

CAS号

461-72-3

化学品及企业标识

PRODUCT NAME

HYDANTOIN

NFPA

Flammability	1
Toxicity	2
Body Contact	0
Reactivity	0
Chronic	0

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

PRODUCT USE

Intermediate in the synthesis of pharmaceuticals, textile lubricants and certain high polymers, including epoxy resins.

SYNONYMS

C3-H4-N2-O2, glycolylurea, "2, 4-imidazolidinedione", "2, 4-imidazolidinedione"

CANADIAN WHMIS SYMBOLS

None

EMERGENCY OVERVIEW

RISK

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Although ingestion is not thought to produce harmful effects, the material may still be damaging to the health of the individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality (death) rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern. Considered an unlikely route of entry in commercial/industrial environments. Hydantoin derivatives may damage the stem cell which acts as the precursor to components of the blood and, as a result, produce blood dyscrasias. Most blood cells originate from a single pluripotent stem cell which are present in the circulating blood, but differentiates only in intact bone marrow. When the number stem cells decreases to below 10% of their normal value, pancytopenia (a reduction in the number of red and white blood cells and platelets) develops in the peripheral blood, with a latency period corresponding to the lifetime of the individual blood cells. Granulocytopenia (a reduction in granular leukocytes) develops within days and thrombocytopenia (a disorder involving platelets), within 1-2 weeks, whilst loss of erythrocytes (red blood cells) need months to become clinically manifest. The erythrocyte count reveals 0.8% loss per day, on average, following the complete stop of red blood cell formation. Aplastic anaemia develops due to complete destruction of the stem cells. Hydantoin is cardiotoxic, producing dysrhythmias or other conductance disturbances. Some hydantoin derivatives (such as phenytoin) are able to cross the placenta and are embryotoxic and/or teratogenic.

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).

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. No human exposure data available. For this reason health effects described are based on experience with chemically related materials. As with any chemical product, contact with unprotected bare skin; inhalation of vapor, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.