西亚试剂® Xiya Reagent 说明书

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化 学 品 安 全 技 术 说 明 书

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MSDS标题

M-PHENYLENEDIAMINE HYDROCHLORIDE MSDS报告

产品标题

1,3-苯二胺二盐酸盐;盐酸间苯二胺;盐酸间二氨基苯

CAS号

541-69-5

化学品及企业标识

PRODUCT NAME

M-PHENYLENEDIAMINE HYDROCHLORIDE

NFPA

Flammability	1
Toxicity	3
Body Contact	3
Reactivity	1
Chronic	2

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

PRODUCT USE

Nitrite reagent. Regeant

SYNONYMS

C6H8N2Cl2, C6H4(NH2)2.2HCl, "m-phenylenediamine dihydrochloride", "m-phenylenediamine dihydrochloride", "m-aminoaniline dihydrochloride", "m-aminoaniline dihydrochloride", "3-aminoaniline dihydrochloride", "3-aminoaniline dihydrochloride", "1, 3-benzenediamine hydrochloride", "1, 3-benzenediamine hydrochloride", "m-benzenediamine dihydrochloride", "m-benzenediamine dihydrochloride", "m-diaminobenzene dihydrochloride", "m-diaminobenzene dihydrochloride", "1, 3-diaminobenzene dihydrochloride", "1, 3-diaminobenzene dihydrochloride", "1, 3-phenylenediamine dihydrochloride", "1, 3-phenylenediamine dihydrochloride"

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

Irritating to eyes.
May cause SENSITIZATION by skin contact.
Possible risk of irreversible effects.
Toxic by inhalation, in contact with skin and if swallowed.
Very toxic to aquatic organisms, may cause long- term adverse effects in the aquatic environment.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual. Strong evidence exists that the substance may cause irreversible but non-lethal mutagenic effects following a single exposure.

EYE

This material can cause eye irritation and damage in some persons. Irritation of the eyes may produce a heavy secretion of tears (lachrymation).

SKIN

Skin contact with the material may produce toxic effects; systemic effectsmay result following absorption. The material is not thought to be a skin irritant (as classified using animal models). Abrasive damage however, may result from prolonged exposures. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an

occupational setting. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED

Inhalation of dusts, generated by the material, during the course of normal handling, may produce toxic effects. The material is not thought to produce respiratory irritation (as classified using animal models). Nevertheless inhalation of dusts, or fume, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. 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

Skin contact with the material is more likely to cause a sensitization reaction in some persons compared to the general population. Exposure to the material may result in a possible risk of irreversible effects. The material may produce mutagenic effects in man. This concern is raised, generally, on the basis ofappropriate studies using mammalian somatic cells in vivo. Such findings are often supported by positive results from in vitro mutagenicity studies. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. There is some evidence that inhaling this product is more likely to cause a sensitization reaction in some persons compared to the general population. m-Phenylenediamine is suspected as a cause of bladder cancers in "aniline' workers. Ocular toxicity and a death form subacute liver necrosis have been reported from contact with commercial hair dyes containing m-phenylenediamine. Workers in a factory producing m-phenylenediamine were exposed for 5 to 10 years to the material. of the workers (30 to 50 years old), 13.% complained of dysuria. A scratch test with m-phenylenediamine produced positive reactions in 8% of the persons who also suffered from eosinophiluria and had urinary m-phenylenediamine levels of 0.3 to 40 ug/100 ml. Cytoscopy showed oedema of the mucous membranes, polypous swellings and infiltration in the urinary bladder. The eosinophilic character of these alterations was confirmed cytologically. Long term administration to experimental animals causes liver and kidney damage (after oral and percutaneous absorption, and percutaneous absorption respectively). m-Phenylenediamine administered orally to experimental animals in the diet or drinking water failed to induce tumours. On the other hand when injected subcutaneously, malignant tumours or sarcomas developed at the injection site. Phenylenediamine derivatives can cause skin damage, which generallydisappears when exposure ceases. Most arylamines are powerful poisons to the blood-making system. High chronic doses cause congestion of the spleen and tumor formation.