

## 化 学 品 安 全 技 术 说 明 书

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### MSDS标题

HYDRAZINE DIHYDROBROMIDE MSDS报告

### 产品标题

二氢溴肼;二氢溴联氨;二氢溴酸肼;肼二氢溴酸盐

### CAS号

23268-00-0

### 化学品及企业标识

## PRODUCT NAME

HYDRAZINE DIHYDROBROMIDE

## NFPA

Flammability	0
Toxicity	3
Body Contact	2
Reactivity	1
Chronic	3
SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4	

## PRODUCT USE

Intermediate.

## **SYNONYMS**

BrH.1/2H4N2

## **CANADIAN WHMIS SYMBOLS**

## **EMERGENCY OVERVIEW**

## **RISK**

Harmful to aquatic organisms.

## **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. Hydrazine (and some of its derivatives), is a strong convulsant in laboratory animals and can cause central nervous system (CNS) depression or stimulation. Symptoms of CNS depression may include nonspecific discomfort, giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal. CNS stimulation may produce dyspnea, coughing, bronchospasm, and laryngospasm. Muscular involvement may produce symptoms ranging from fasciculation to spasticity or seizures. Headache, dizziness and confusion may also result as can hyperpyrexia or a sensation of warmth. Other symptoms may include nausea, vomiting, diarrhoea and difficulty in urination. Cardiovascular involvement may produce alterations in blood pressure or arrhythmia. Pulmonary oedema and cardiovascular collapse also seem to be a feature of acute hydrazine poisonings. Animals that survive for more than a day frequently develop liver necrosis and renal failure. As judged by a few severe poisonings, man reacts like monkey in the sense that liver injury is more severe than kidney failure. Severe hypoglycaemia may develop even earlier than liver necrosis although this is rarely mentioned in the literature. Bromide poisoning causes intense vomiting so the dose is often removed. Effects include drowsiness, irritability, inco-ordination, vertigo, confusion, mania, hallucinations and coma. Other effects include skin rash, nervous system symptoms, sensory disturbances and increased spinal fluid pressure. They have been used as sedatives and depress the central nervous system. Toxicity is increased if dietary chloride is reduced. Repeated

ingestion can cause a syndrome with acne, confusion, irritability, tremor, memory loss, weight loss, headache, slurred speech, delusions, stupor, psychosis and coma.

## **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. Toxic effects may result from skin absorption.

## **INHALED**

Inhalation may produce serious health damage\*. The material is not thought to produce respiratory irritation (as classified using animal models). Nevertheless inhalation of the material, 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. Symptoms of inhalation of hydrazine (and some of its derivatives), may include nausea and headache. Central nervous system (CNS) excitability may lead to convulsions and, in severe cases, respiratory arrest and death. Several instances of systemic poisoning, by hydrazine, have been reported in humans. These mainly involve the CNS, respiratory system and stomach. CNS stimulation may produce twitching of the extremities, clonic movements, hyperreflexia, convulsions and pyrexia; these may progress to lethargy, ataxia, confusion, coma and hypotension. Oliguria, haematuria, hyperglycaemia and/ or hypoglycaemia and elevated LFTs are common. Leucocytosis, paraesthesia and peripheral neuropathies may be delayed for several days. Respiratory (and dermal) exposure may produce deficits in concentration, comprehension, memory, task performance and mood status. Irritation of the mucous membranes may produce rhinitis, salivation, coughing, choking and dyspnoea.

## **CHRONIC HEALTH EFFECTS**

There is some evidence that inhaling this product is more likely to cause a sensitization reaction in some persons compared to the general population.

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts. Hydrazine derivatives tend to be local irritants and cause convulsions, liver damage, and destruction of red blood cells. They also damage the kidneys, and cause stimulation of the central

nervous system with tremors and convulsions, progressing to depression, respiratory collapse and death. When administered orally, hydrazine induced pulmonary adenomas and adenocarcinomas in mice. Inhalation induced lung carcinomas and lymphosarcomas of the spleen in female mice. A study of 423 men, involved in the manufacture of hydrazine revealed three stomach, one prostate and a neurogenic cancer. Chronic intoxication with ionic bromides, historically, has resulted from medical use of bromides but not from environmental or occupational exposure; depression, hallucinosis, and schizophreniform psychosis can be seen in the absence of other signs of intoxication. Bromides may also induce sedation, irritability, agitation, delirium, memory loss, confusion, disorientation, forgetfulness (aphasias), dysarthria, weakness, fatigue, vertigo, stupor, coma, decreased appetite, nausea and vomiting, diarrhoea, hallucinations, an acne like rash on the face, legs and trunk, known as bronchoderma (seen in 25-30% of case involving bromide ion), and a profuse discharge from the nostrils (coryza). Ataxia and generalised hyperreflexia have also been observed. Correlation of neurologic symptoms with blood levels of bromide is inexact. The use of substances such as brompheniramine, as antihistamines, largely reflect current day usage of bromides; ionic bromides have been largely withdrawn from therapeutic use due to their toxicity. Several cases of foetal abnormalities have been described in mothers who took large doses of bromides during pregnancy.