

化 学 品 安 全 技 术 说 明 书

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MSDS标题

VARIAN HELIX BUFFERPAK B FOR DNA ANALYSIS MSDS报告

产品标题

甲基氰; 氰甲烷; 乙烷腈

CAS号

75-05-8

化学品及企业标识

PRODUCT NAME

VARIAN HELIX BUFFERPAK B FOR DNA ANALYSIS

NFPA

Flammability	3
Toxicity	3
Body Contact	3
Reactivity	1
Chronic	2

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

PRODUCT USE

Used according to manufacturer' s directions.

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

Contact with acids liberates very toxic gas.
Harmful by inhalation, in contact with skin and if swallowed.
Irritating to eyes, respiratory system and skin.
Highly flammable.
May cause long-term adverse effects in the environment.

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. 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. Cyanide poisoning can cause increased saliva output, nausea without vomiting, anxiety, confusion, vertigo, dizziness, stiffness of the lower jaw, convulsions, spasm, paralysis, coma and irregular heartbeat, and stimulation of breathing followed by failure. Often the skin becomes cyanosed (blue-gray), and this is often delayed. Doses which are not lethal are eventually excreted in the urine.

EYE

This material can cause eye irritation and damage in some persons. Vapors of volatile amines irritate the eyes, causing excessive secretion of tears, inflammation of the conjunctiva and slight swelling of the cornea, resulting in "halos" around lights. This effect is temporary, lasting only for a few hours. However this condition can reduce the efficiency of undertaking skilled tasks, such as driving a car. Direct eye contact with liquid volatile amines may produce eye damage, permanent for the lighter species.

SKIN

Skin contact with the material may be harmful; systemic effects may result following absorption. This material can cause inflammation of the skin on contact in some persons. Skin contact with the material may produce toxic effects; systemic effects may result following absorption. The material may accentuate any pre-existing dermatitis condition. Volatile amine vapors produce irritation and inflammation of the skin. Direct contact can cause

burns. They may be absorbed through the skin and cause similar effects to swallowing, leading to death. The skin may exhibit whiteness, redness and wheals.

INHALED

If inhaled, this material can irritate the throat and lungs of some persons. Inhalation of vapors or aerosols (mists, fumes), generated by the material during the course of normal handling, may produce toxic effects. The odour of acetonitrile is considered to give insufficient warning properties of exposure. The vapour is highly toxic, and inhalation may cause loss of consciousness. Effects of inhalation exposure are headache, general weakness, with nausea, and reduced pulse rate and blood pressure. Other symptoms include subnormal temperature, shallow respiration, and cyanosis (a blue discolouration of the skin due to lack of oxygen). The peak effects may be delayed for several hours. Convulsions and collapse may follow. Exposure to concentrations of 160 ppm acetonitrile, in air, for 4 hours, has caused flushing of the face (2 hour delay following exposure) and bronchial tightness (5 hour delay). Heavier exposures produced systemic effects with symptoms ranging from headache, nausea, lassitude to vomiting, chest or abdominal pain, respiratory depression, extreme weakness, stupor, convulsions and, for severe exposures, depending on time and concentration, death. .

CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapors especially at higher temperatures. Chronic exposure to cyanides and certain nitriles may result in interference to iodine uptake by thyroid gland and its consequent enlargement. This occurs following metabolic conversion of the cyanide moiety to thiocyanate. Thyroid insufficiency may also occur as a result of metabolic conversion of cyanides to the corresponding thiocyanate. Exposure to small amounts of cyanide compounds over long periods are reported to cause loss of appetite, headache, weakness, nausea, dizziness, abdominal pain, changes in taste and smell, muscle cramps, weight loss, flushing of the face, persistent runny nose and irritation of the upper respiratory tract and eyes. These symptoms are not specific to cyanide exposure and therefore the existence of a chronic cyanide toxicity remains speculative. Repeated minor contact with cyanides produce a characteristic rash with itching, papules (small, superficial raised spots on the skin) and possible sensitization. Concerns have been expressed that low-level, long term exposures may result in damage to the nerves of the eye. The material may accumulate in the human body and progressively cause tissue damage.