

化 学 品 安 全 技 术 说 明 书

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MSDS标题

OCTACOSANE-14,15-14C MSDS报告

产品标题

正二十八烷;二十八碳烷

CAS号

630-02-4

化学品及企业标识

PRODUCT NAME

OCTACOSANE-14,15-14C

NFPA

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

PRODUCT USE

Radiochemical reagent or intermediate.

SYNONYMS

C28-H58, (CH₃[CH₂]₁₂₋₁₄CH₂-₁₄CH₂-[CH₂]₁₂CH₃), CH₃(CH₂)₂₆CH₃, "alkane 28", n-octacosane, n-octacosane

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

Limited evidence of a carcinogenic effect.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments.

EYE

There is some evidence to suggest that this material can cause eye irritation and damage in some persons. beta-Radiation produces severe inflammation of the eyelid tissue and eye surface. The lens is especially sensitive, and cataracts can occur after a delay of months to years. They are progressive, but growth may stop at any time.

SKIN

beta-Radiation may produce reddening and color changes to the skin. Peeling, blistering, ulceration and death of skin tissue may occur. After damage occurs, cancers may develop.

INHALED

Inhalation may produce health damage*. 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. The degree of absorption into the body depends on solubility and particle size. Insoluble compounds and heavier particle may remain at or near the sites of deposition and may be brought to the throat by ciliary action where they may be swallowed. Soluble compounds may enter the blood stream. Lighter particles may remain in the alveolar sacs. The degree of damage is dependent on the rate of elimination and the susceptibility of

the tissue to radiation damage. A single large dose may produce radiation sickness. A whole body dose of 2-10 Gray may cause loss of appetite, tiredness, nausea and vomiting, most severe after 6-12 hours. After this subsides a gross disturbance in blood cell distribution occurs with loss of white blood cells and platelets over weeks. The activity of bone marrow may become so depressed that overwhelming infections can occur and cause death. A dose of 4 Gray can lead to damage of the bowel lining, causing untreatable nausea, vomiting and diarrhea, which may result in severe dehydration, collapse and death. Although repair of the damage may occur, failure of blood cell production can ensue. At 6 Gray, damage to the blood cell production and digestive systems can be fatal. Whole body doses of 30 Gray can cause nausea, vomiting, listlessness, drowsiness, weakness, tremors, convulsions, incoordination and death within hours. The reproductive organs are particularly sensitive to radiation. A dose of 0.3 Gray can cause temporary loss of fertility in men; there may be cessation of periods in women.

CHRONIC HEALTH EFFECTS

There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.

Principal routes of exposure are usually by skin contact/absorption and inhalation of generated dust. High doses of beta radiation can cause lung cancer, sterility, anemia, leukemia or bone cancer. Cataracts can develop and should be seen as a sign. Prolonged exposure to smaller doses can lead to dry, thick skin with itchiness, redness and warts, and hair loss. A single large or prolonged low exposure to radiation can cause delayed effects, including blood cancers, genetic disorders, shortened lifespan and cataracts. Leukemia is the most common cancer caused; cancers of the thyroid, bone, lung (due to radioactive particle deposits) and skin are also seen. Many and varied genetic changes can occur; if they affect cells of the reproductive system, they may only display themselves after being inherited.