

化 学 品 安 全 技 术 说 明 书

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MSDS标题

UNION CARBIDE ORGANOFUNCTIONAL SILANE A-189 MSDS报告

产品标题

γ -巯丙基三甲氧基硅烷

CAS号

4420-74-0

化学品及企业标识

PRODUCT NAME

UNION CARBIDE ORGANOFUNCTIONAL SILANE A-189

NFPA

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

PRODUCT USE

Used in the manufacture of adhesives and resins.

SYNONYMS

C6-H16-O3-S-Si, C6-H16-O3-S-Si, HS(CH₂)₃.Si(OCH₃)₃, gamma-mercaptopropyltrimethoxysilane, "1-propanethiol, 3-(trimethoxysilane)", "1-propanethiol, 3-(trimethoxysilane)", "silane, 3-mercaptopropyltrimethoxy", "silane, 3-mercaptopropyltrimethoxy", "propanethiol, trimethoxysilane-", "Union Carbide A-189", "organosilane ester"

CANADIAN WHMIS SYMBOLS

EMERGENCY OVERVIEW

RISK

Contact with water liberates extremely flammable gases.
Harmful by inhalation, in contact with skin and if swallowed.
Harmful to aquatic organisms.

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. Considered an unlikely route of entry in commercial/industrial environments. Ingestion may result in nausea, pain, vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis. Methanol may produce a burning or painful sensation in the mouth, throat, chest, and stomach. This may be accompanied by nausea, vomiting, headache, dizziness, shortness of breath, weakness, fatigue, leg cramps, restlessness, confusion, drunken behavior, visual disturbance, drowsiness, coma and death. These symptoms may not occur until several hours after exposure. Visual impairment produces blurring, double vision, color distortion, reduced visual field, and blindness. In higher doses, the liver, kidney, heart and muscle can all be damaged. 10mL can cause blindness, and 60-200mL will cause death in adults.

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

Skin contact with the material may be harmful; systemic effects may result following absorption. The material is not thought to be a skin

irritant (as classified using animal models). Temporary discomfort, however, may result from prolonged dermal exposures. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. The liquid may produce skin discomfort following prolonged contact. Defatting and/or drying of the skin may lead to dermatitis. Toxic effects may result from skin absorption. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

INHALED

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. Inhalation hazard is increased at higher temperatures. Inhalation of vapor may aggravate a pre-existing respiratory condition.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by skin contact/absorption and inhalation of vapor. No human exposure data available. For this reason health effects described are based on experience with chemically related materials. Long-term exposure to methanol vapor, at concentrations exceeding 3000 ppm, may produce cumulative effects characterized by gastrointestinal disturbances (nausea, vomiting), headache, ringing in the ears, insomnia, trembling, unsteady gait, vertigo, conjunctivitis and clouded or double vision. Liver and/or kidney injury may also result. Some individuals show severe eye damage following prolonged exposure to 800 ppm of the vapor. 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. Overexposure may aggravate existing kidney or liver disease.