

## 化 学 品 安 全 技 术 说 明 书

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### MSDS标题

HYDROXYPROPYL METHYLCELLULOSE MSDS报告

### 产品标题

羟基丙酸甲基纤维素;羟甲基丙基纤维素;羟丙甲纤维素;羟基丙基甲基纤维素

### CAS号

9004-65-3

### 化学品及企业标识

## PRODUCT NAME

HYDROXYPROPYL METHYLCELLULOSE

## STATEMENT OF HAZARDOUS NATURE

Not considered a hazardous substance according to OSHA 29 CFR 1910.1200.

## NFPA

Flammability	1
Toxicity	0
Body Contact	0
Reactivity	0
Chronic	0

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

## PRODUCT USE

Used as emulsifier, film former, protective colloid, stabiliser, suspending agent or thickener in adhesives, asphalt emulsions, caulking compounds, tile mortars, plastic mixes, cements, paints; as sticker for agricultural sprays and dusts. Used as thickener, stabiliser, vegetable gum in foods. Food additive 464.

## SYNONYMS

"hydroxypropyl methyl cellulose", hydroxypropylmethylcellulose, "hydroxypropylmethyl cellulose", "cellulose 2-hydroxypropyl methyl ether", "cellulose 2-hydroxypropyl methyl ether", "Methocel E, F, K", "Methocel HG", Goniosol, "cellulose ether", Hypromellose, "Isopto Alkaline", "Isopto Plain", "Isopto Tears", Tearisol, "Ultra Tears", HPMC, HPMCD, "Sigma H7509"

## CANADIAN WHMIS SYMBOLS

None

## EMERGENCY OVERVIEW

## RISK

## 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. Considered an unlikely route of entry in commercial/industrial environments. Considered to be non toxic. Use as a food additive indicates good tolerance of small amounts, but excessive amounts or overuse may bring irritant and / or harmful effects. Polysaccharides are not substantially absorbed from the gastrointestinal tract but may produce a laxative effect. Larger doses may produce intestinal obstruction or stomach concretions. Large quantities of the substituted polysaccharide, methylcellulose (as with other bulk laxatives), may temporarily increase flatulence. Oesophageal obstruction, by swelling, may occur if the material is swallowed dry. Doses of 3-9 gm hydroxypropylcellulose, fed to human subjects, at least one week apart, were eliminated within 96 hours. Animals fed on diets containing 3% or less, experienced no adverse effects. Higher levels produced malnutrition due to

excessive bulk but caused no organic damage. In one dog, an oral dose of hydroxypropylcellulose produced diarrhoea and blood cell depression. Ingestion of hetastarch (hydroxyethyl amylopectin) has reportedly produced fever, chills, urticaria and salivary gland enlargement. Several of these effects may be due to contamination by other naturally occurring macromolecules extracted from the source material. Large volumes of ingested hetastarch may interfere with coagulation mechanisms and increase the risk of haemorrhage. Anaphylaxis has occurred. Infusions of dextrans may occasionally produce allergic reactions such as urticaria, hypotension and bronchospasm. Severe anaphylactic reactions may occasionally occur and death may result from cardiac and respiratory arrest. Nausea, vomiting, fever, joint pains, and flushing may also occur. Similarly, allergic reactions, sometimes severe (but rare) have been reported following ingestion or inhalation of tragacanth gums. High molecular weight material; on single acute exposure would be expected to pass through gastrointestinal tract with little change / absorption. Occasionally accumulation of the solid material within the alimentary tract may result in formation of a bezoar (concretion), producing discomfort.

## **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.

## **INHALED**

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. 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**

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts. Studies indicate that diets containing large amounts of non-absorbable polysaccharides, such as cellulose, might decrease absorption of calcium, magnesium, zinc and phosphorus. This material contains a substantial amount of polymer considered to be of low concern. These are classified under having MWs of between 1000 to 10000 with

less than 25% of molecules with MWS under 1000 and less than 10% under 500; or having a molecular weight average of over 10000. Functional groups contained on the polymer are then classified into risk categories. Being classified as a polymer of "low concern" does not mean that there are no hazards associated with the chemical.

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