

L113

The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

Material Safety Data Sheet

CLE020

Revised 17-MAR-2005

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"TYRIN" is a registered trademark of The Dow Chemical Company (Dow San Resin)

Product Name TYRIN* 3611P Chlorinated Polyethylene Resin.

Company Identification

The Dow Chemical Company
2030 Willard H. Dow Center
Midland, MI 48674
USA

PHONE NUMBERS

Customer Information Number: 800-258-2436
Emergency Telephone Number: 989-636-4400

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
CHLORINATED POLYETHYLENE	64754-90-1	>90
TALC, CONTAINING NO ASBESTOS FIBERS	14807-96-6	<7
CALCIUM STEARATE	1592-23-0	0-3
CALCIUM CARBONATE	471-34-1	0-5

Components (Remarks)

Material is not known to contain Toxic Chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Potential Health Effects

ADDITIONAL HEALTH EFFECTS

CHLORINATED POLYOLEFIN

ACUTE OR IMMEDIATE EFFECTS : ROUTES OF ENTRY AND SYMPTOMS

INGESTION

Not a probable route of exposure. Single dose oral LD-50 has not been determined. Single dose oral toxicity is believed to be very low.

SKIN

Skin contact, especially with hot polymer, may cause skin irritation in some sensitive people resulting in redness, itching, and in extreme cases, blistering. Avoid contact with hot polymer which may give thermal burns.

EYE

Polymer chips or dust in the eye may cause mechanical damage including scratching of the cornea.

INHALATION

Vapors released during processing may be composed of hydrogen chloride and possibly carbon monoxide. These gases are evolved, they will cause tearing and burning of the eyes. The vapors will also cause irritation to the upper respiratory tract which results in a sore throat and coughing in severe cases with shortness of breath.

TALC

Short-term over-exposure by inhalation to Talc may cause irritation of the nose, throat and lungs with cough, difficulty breathing or shortness of breath. Long-term over-exposure may lead to chronic lung disease with impaired lung function and abnormal chest x-rays.

Increased susceptibility to the effects of Talc may be observed in persons with pre-existing disease of the lungs.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid

INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Call a physician.

SKIN CONTACT

Flush skin with water after contact. Wash contaminated clothing before reuse.

If molten material gets on skin, cool rapidly with cold water. Do not attempt to remove material from skin. Obtain medical treatment for thermal burn.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

Call a physician.

INGESTION

Not a probable route. However, in case of accidental ingestion, call a physician.

FIRE FIGHTING MEASURES

Flammable Properties

Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.

UNUSUAL FIRE, EXPLOSION HAZARDS

Solid polymer can be combusted only with difficulty. Hydrogen chloride is a decomposition/combustion product.

HAZARDOUS COMBUSTION PRODUCTS:

Hydrogen chloride, carbon monoxide, organic acids, aldehydes, alcohols.

Extinguishing Media

Water Fog, Foam, Dry Chemical, CO₂.

Fire Fighting Instructions

Use self-contained breathing apparatus and protective clothing to avoid exposure to hydrogen chloride and other fumes.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

HANDLING AND STORAGE

Handling (Personnel)

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

Storage

Store in a cool, dry place.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use sufficient ventilation to keep employee exposure below recommended limits. Use static controls. Static charges can build up and ignite dust or solvent laden atmospheres.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye and face contact due to splashing or spraying of molten material. A full face mask respirator provides protection from eye irritation.

RESPIRATORS

A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

PROTECTIVE CLOTHING

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Exposure Guidelines

Applicable Exposure Limits

TALC, CONTAINING NO ASBESTOS FIBERS

PEL (OSHA) : 20 mppcf (~3.3 mg/m³), respirable
as 8 Hr TWA

TLV (ACGIH) : 2 mg/m³, respirable dust, 8 Hr. TWA, A4

CALCIUM STEARATE

PEL (OSHA) : None Established

TLV (ACGIH) : 10 mg/m³, total dust, 8 Hr. TWA
A4

CALCIUM CARBONATE

TLV (ACGIH) : 10 mg/m³, 8 Hr. TWA

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Solubility in Water : Negligible
Odor : No odor
Form : Powder
Color : Off-white
Specific Gravity : ~1.2

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Conditions to Avoid

Avoid open flames and high temperatures.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

Hazardous gases or vapors can be released, including carbon monoxide, hydrogen chloride (HCl), hydrocarbon oxidation products including organic acids, aldehydes and alcohols.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

TALC

Talc

Oral LD50: 920 mg/kg in rats

Inhalation 5 hour ALC: > 22 mg/L in rats

Long-term exposure by ingestion to Talc caused no significant decrease in life span.

A single exposure by inhalation to high doses of Talc caused irregular respiration and lacrimation but no evidence of an inflammatory reaction. Repeated exposure caused no adverse effects on survival or histological changes. Long-term exposure in rats caused chronic inflammation, impaired pulmonary function and histopathological changes of the lungs.

One lifetime inhalation study reports an increased incidence of lung and adrenal tumors in rats exposed to Talc. The lung tumors and chronic inflammation occurred at dust levels which overwhelmed the animals lung clearance mechanism and, therefore, are of questionable biological relevance for man. The adrenal tumors are unlikely to be a direct effect of Talc exposure and are of questionable relevance. No increases in tumors were observed in mice. Talc has not caused developmental toxicity in animals. No animal data are available to define the reproductive toxicity of Talc. Tests have shown that Talc does not cause genetic damage in bacterial or mammalian cell cultures, or in animals. Animal data indicate that Talc does not cause permanent genetic damage in reproductive cells of mammals (does not cause heritable genetic damage).

ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

No information is available. Toxicity is expected to be low based on insolubility in water.

DISPOSAL CONSIDERATIONS

Waste Disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage,

(DISPOSAL CONSIDERATIONS - Continued)

transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

TRANSPORTATION INFORMATION

Shipping Information

DOT

Proper Shipping Name : Not regulated.

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status

In compliance with TSCA Inventory requirements for commercial purposes.

State Regulations (U.S.)

STATE RIGHT-TO-KNOW

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated.

SUBSTANCES ON THE PENNSYLVANIA HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 1 % OR MORE (0.01% FOR SPECIAL HAZARDOUS SUBSTANCES)- Talc.

WARNING - SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM- None known.

SUBSTANCES ON THE NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE LIST PRESENT AT A CONCENTRATION OF 1% OR MORE (0.1% FOR SUBSTANCES IDENTIFIED AS CARCINOGENS, MUTAGENS OR TERATOGENS)- Talc.

OTHER INFORMATION

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

(Continued)

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS