

# Material Safety Data Sheet

**PRODUCT NAME:**  
**POLYETHYLENE**  
**(CAS 9002-88-4)**

Quantum Chemical Corporation  
USI Division

11500 Northlake Drive, Cincinnati, OH 45249

Information Phone: (513) 530-6500 Ext. 6917  
CHEMTREC: (800) 424-9300

This product is *not* considered hazardous under the following laws and legislation: OSHA's Subpart Z list; ACGIH 1984-1985 TLV list; NTP Third Annual Report; IARC Monographs Supplement 4. The information on this sheet is furnished as a customer service to aid in the safe handling of the product. Quantum Chemical Corporation, USI Division recommends that the following information be made available to any and all parties who may come in contact with the product.

## 1. Health

Polyethylene resins constitute no significant health hazard in normal commercial use. For "Regulated" uses, such as FDA, your Quantum Chemical Corporation, USI Division sales representative can obtain compliance letters for specific resins.

Good housekeeping practices should be followed to control or eliminate dust accumulation at all times.

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses and appropriate protective clothing are suggested as a minimal precaution to prevent possible mechanical or thermal injury.

Vapors may be emitted from polymer during molten operations. Ventilation should be provided to reduce or eliminate exposure to fumes generated during processing.

## 2. Combustibility

Product will burn if heat sources are present with air supply. Burning material will produce gases and vapors that are hazardous.

## 3. Fire Precautions

Use dry chemical or water fog extinguishing media. For fires involving this material, do not enter any closed or confined space without proper protective equipment, including self-contained breathing apparatus.

## 4. Dust Explosion

Normal commercial handling of resins may result in the generation of dust and fine particulate matter which has the potential for dust explosion. Therefore, good housekeeping and dust control is recommended at all times.

## 5. Disposal Methods

Dispose of according to local, state, and federal regulations.

The information on this sheet is, to our best knowledge, true and accurate. However, since conditions of use are beyond our control, all recommendations or suggestions are presented without guarantee or responsibility on our part. We disclaim all liability in connection with the use of information contained herein or otherwise. All risks of such use are assumed by the user. Furthermore, nothing contained herein shall be construed as an inducement or recommendation to use any process or to manufacture or use any product in conflict with existing or future patents.



DuPont Polymers

POL001

Revised 14-SEP-1998

Printed 17-MAR-2008

# DUPONT POLNT

## CHEMICAL PRODUCT/COMPANY IDENTIFICATION

### Material Identification

Corporate MSDS Number DU008125

### Tradenames and Synonyms

POLNT

POLNT-MB

#

### Company Identification

MANUFACTURER/DISTRIBUTOR

DUPONT PACKAGING & INDUSTRIAL POLYMERS  
1007 MARKET STREET  
WILMINGTON, DE 19898

### PHONE NUMBERS

Product Information 1-(800)441-7515

Transport Emergency 1-(800)424-9300

Medical Emergency 1-(800)441-3637

## COMPOSITION/INFORMATION ON INGREDIENTS

### Components

Material

CAS Number

%

ETHYLENE-VINYL ACETATE POLYMER

>99.7

\*VINYL ACETATE

108-05-4

<0.3

METHACRYLIC ACID

79-41-4

<0.3

\* Disclosure as a toxic chemical is required 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

ACUTE OR IMMEDIATE EFFECTS : ROUTES OF ENTRY AND SYMPTOMS

(Continued)

## HAZARDS IDENTIFICATION (Continued)

**INGESTION** The oral LD-50 in rats using one type of Ethylene-Vinyl Acetate Polymer is in excess of 1000 milligrams per kilogram of body weight. Two week metabolic tests with dogs and rats showed that no significant amount of polymer was retained by the animals. 90-day feeding studies in rats showed that Ethylene-Vinyl Acetate resins have low toxicity. Slight liver effects were seen in animals fed diets containing 10% Ethylene-Vinyl Acetate; no effects were seen with diets containing 5% Ethylene-Vinyl Acetate. Overall, no important body systems or organ dysfunction occurred at either dose level.

**SKIN** No data are available. However, based on experience with handling these polymers, contact with resin may cause mild irritation of skin. Molten polymer contacting the skin will cause thermal burns.

**EYE** Contact with processing vapors may cause severe eye irritation.

**INHALATION** Polymer is not respirable as marketed. At processing temperatures above 200 C (392 F), fumes irritating to the eye, nose, and throat may be produced. Exposure may result in redness, tearing, and itching in the eyes together with soreness in the nose and throat with coughing.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE** None known.

### Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
VINYL ACETATE				2B

## FIRST AID MEASURES

### First Aid

#### INHALATION

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

#### SKIN CONTACT

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten polymer gets on skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

#### EYE CONTACT

In case of contact, immediately flush eyes with plenty of water

(Continued)

---

**FIRST AID MEASURES**(Continued)

for at least 15 minutes. Call a physician.

**INGESTION**

No specific intervention is indicated as compound is not likely to be hazardous by ingestion. Consult a physician if necessary.

---

**FIRE FIGHTING MEASURES****Flammable Properties**

Flash Point                      260 C (500 F) Cleveland  
Method                              open cup

---

**Fire and Explosion Hazards:**

The solid polymer can be combusted only with difficulty.

Hazardous gases/vapors produced in fire are aldehydes, acetic acid, and, carbon monoxide.

---

**Extinguishing Media**

Water, Foam, Dry Chemical, CO2.

---

**Fire Fighting Instructions**

Wear protective clothing and use self-contained breathing equipment to protect from 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.

---

**Spill Clean Up**

Sweep up to avoid slipping hazard.

---

---

**HANDLING AND STORAGE****Handling (Personnel)**

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

---

**Storage**

Store in a cool, dry place. Keep container closed to prevent contamination.

---

(Continued)

## **EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Engineering Controls**

Use sufficient ventilation to keep employee exposure below recommended limits.

### **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**

#### **Exposure Limits**

DUPONT POLNT

PEL (OSHA)

Particulates (Not Otherwise Regulated)  
15 mg/m<sup>3</sup>, 8 Hr. TWA, total dust  
5 mg/m<sup>3</sup>, 8 Hr. TWA, respirable dust

#### **Other Applicable Exposure Limits**

VINYL ACETATE

PEL (OSHA)

TLV (ACGIH)

None Established

10 ppm, 35 mg/m<sup>3</sup>, 8 Hr. TWA, A3

STEL 15 ppm, 53 mg/m<sup>3</sup>, A3

10 ppm, 8 & 12 Hr. TWA

AEL \* (DuPont)

METHACRYLIC ACID

PEL (OSHA)

TLV (ACGIH)

AEL \* (DuPont)

None Established

20 ppm, 70 mg/m<sup>3</sup>, 8 Hr. TWA

10 ppm, 8 & 12 Hr. TWA

\* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

(Continued)

---

## PHYSICAL AND CHEMICAL PROPERTIES

### Physical Data

Melting Point	NA
% Volatiles	Negligible
Solubility in Water	Negligible
Odor	Mild ester-like
Form	Pellets
Specific Gravity	0.93-0.97

---

---

## STABILITY AND REACTIVITY

### Chemical Stability

Stable at normal temperatures and storage conditions.

---

### Conditions to Avoid

Temperatures above 230 degrees C for short residence times.  
Temperatures above 200 degrees C for long residence times.

---

### Incompatibility with Other Materials

Incompatible or can react with strong acids, and, oxidizing agents.

---

### Polymerization

Polymerization will not occur.

---

---

## TOXICOLOGICAL INFORMATION

### # Animal Data

#### VINYL ACETATE

Inhalation 4 hour LC50: 4000 ppm in rats  
Skin absorption LD50: 2335 mg/kg in rabbits  
Oral LD50: 2920 mg/kg in rats

Vinyl Acetate is a slight skin and a severe eye irritant, and a weak skin sensitizer in animals. No effects from repeated exposure to Vinyl Acetate by inhalation were observed at 100 ppm in rats. Exposure to higher concentrations of Vinyl Acetate by inhalation caused eye irritation and lacrimation, reduced weight gain, and irritation of the respiratory tract with breathing difficulty. The effects observed in rats and mice exposed by inhalation to 200 and 600 ppm for two years include reduced body weight, and pathological changes in the nose and respiratory tract. Nasal cavity tumors were observed in rats but not in mice. Research on the mechanism of nasal tumor induction in rats suggests that levels at which humans are likely to be exposed are below the threshold for effects that contribute to tumor formation.

Vinyl Acetate is not a developmental toxin in animals. The effect of Vinyl Acetate on reproduction in animals is not considered significant. Genetic damage was produced in some types of cell cultures and in animals, but was negative in other studies. No tests for heritable genetic damage were available.

---

(Continued)

---

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

---

**TRANSPORTATION INFORMATION****Shipping Information**

DOT

Hazard Class

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)- None known.

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)- Vinyl acetate.

---

(Continued)

---

**OTHER INFORMATION****Additional Information**

**MEDICAL USE: CAUTION:** Do not use in medical applications involving permanent implantation in the human body. For other medical applications see DuPont CAUTION Bulletin No. H-50102.

---

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.

Responsibility for MSDS    T. E. SCHROER  
Address                      DUPONT PACKAGING & INDUSTRIAL POLYMERS  
                                 CHESTNUT RUN PLAZA 713  
Telephone                    WILMINGTON, DE 19880-0713  
                                 302-999-4664

---

# Indicates updated section.

---

End of MSDS