

Safety Data Sheet



Delrin 511P

ISSUE DATE: 12/29/2014

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Delrin 511P
SYNONYMS: Not Applicable
PRODUCT COLORS: Various

MANUFACTURER: Ensinger Inc.
DIVISION: Stock Shapes
ADDRESS: 365 Meadowlands Blvd., Washington, PA 15301

EMERGENCY PHONE: (724) 746-6050
OTHER CALLS: (856) 227-0500

CHEMICAL NAME: Polyoxymethylene (POM)
CHEMICAL FAMILY: Acetal
CHEMICAL FORMULA: basic formula (CH₂O)_n

PRODUCT USE: Stock Shape for Machining
PREPARED BY: Allyson M. Crouse, Technical Resource Manager

SECTION 1 NOTE: Revised December 29, 2014

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Mechanical injury only.

ROUTES OF ENTRY: Eyes

POTENTIAL HEALTH EFFECTS

EYES: Solid or dust causes irritation or corneal injury due to mechanical action.

SKIN: Essentially nonirritating to skin. Mechanical injury only. Molten material may burn skin.

INGESTION: Single dose oral LD50 has not been determined. Single dose oral toxicity is believed to be very low. Now hazards anticipated from ingestion incidental to industrial exposure.

INHALATION: Dust may cause irritation to upper respiratory tract. At room temperature, exposure to vapors are unlikely due to physical properties, normal processing temperatures may generate vapors, which may cause irritation if ventilation is inadequate.

Safety Data Sheet



Delrin 511P

ISSUE DATE: 12/29/2014

ACUTE HEALTH HAZARDS: None Known

CHRONIC HEALTH HAZARDS: None Known

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None Known

CARCINOGENICITY

OSHA: Particulates not otherwise regulated/OSHA (PEL) 15 mg/m³ (TWA, Total Dust)

Particulates not otherwise regulated/OSHA (PEL) 5 mg/m³ (TWA, Respirable Dust)

ACGIH: Particulates not otherwise regulated/ACGIH (TLV) 10 mg/m³ (TWA, Total Dust)

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Polyoxymethylene (POM)

This product contains a proprietary blend of components encapsulated within a polymer matrix. These components are not regarded as hazardous under 2012 OSHA Hazard Communication Standard; 29CFR Part 1910.1200.

4. FIRST AID MEASURES

EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Mechanical effects only.

SKIN: Wash off in flowing water or shower.

INGESTION: No adverse effects anticipated by this route of exposure incidental to proper industrial handling. If ingested, induce vomiting; if patient is conscious. Call a poison control center/physician, if patient feels unwell.

INHALATION: Remove to fresh air, if effects occur. Consult a physician.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: Not Applicable
(% BY VOLUME) LOWER: Not Applicable

Safety Data Sheet



Delrin 511P

ISSUE DATE: 12/29/2014

FLASH POINT:

F: Not Applicable

C: Not Applicable

AUTOIGNITION TEMPERATURE:

F: Not Applicable

C: Not Applicable

EXTINGUISHING MEDIA: Carbon dioxide, water spray, dry chemical, alcohol resistant foam

SPECIAL FIRE FIGHTING PROCEDURES: May produce toxic fume of carbon monoxide, if burning.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known

HAZARDOUS DECOMPOSITION PRODUCTS: Formaldehyde, Carbon Monoxide, Carbon Dioxide

SECTION 5 NOTES: Wear full protective suit. In case of combustion, use a suitable breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Ventilate the area and prevent access to unauthorized people. Wear suitable personal protective equipment. Do not allow entry to drains, water courses or soil. Prevent spreading by use of suitable barriers. Take up with suitable equipment, fill up in air-tight containers and give further treatment as soon as possible.

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Keep away from strong oxidizing compounds. Store in a well-ventilated place. Provide ventilation and wear necessary protectors.

OTHER PRECAUTIONS: Obtain special instructions, before use. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink or smoke; when machining this product. Use personal protective equipment as required.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Standard ventilation required

Safety Data Sheet



Delrin 511P

ISSUE DATE: 12/29/2014

VENTILATION: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

RESPIRATORY PROTECTION: For most conditions a dust mask is sufficient; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

EYE PROTECTION: Safety glasses should be sufficient for most operations; however, for dusty operations wear chemical goggles. If vapor exposure causes eye discomfort, use a full-face respirator

SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None Known

Special Precautions to be taken in Handling and Storage: Store in sealed containers. Protect from atmospheric moisture. Molten material can produce thermal burns. Avoid skin contact. Fumes released during normal processing may cause irritation. Provide adequate ventilation. Heating the resin above normal processing temperatures may cause hazardous decomposition products. Do not overheat. Handling and fabrication of plastic resins can result in the generation of dust. Dust results from sawing, filing, and sanding of plastic parts in post-molding operations. Quantities of dust in air may be combustible and may cause respiratory irritation.

EXPOSURE GUIDELINES:

Particulates not otherwise regulated:

OSHA: Particulates not otherwise regulated/OSHA (PEL) 15 mg/m³ (TWA, Total Dust)

Particulates not otherwise regulated/OSHA (PEL) 5 mg/m³ (TWA, Respirable Dust)

ACGIH: Particulates not otherwise regulated/ACGIH (TLV) 10 mg/m³ (TWA, Total Dust)

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Opaque color stock shape

ODOR: Not Applicable

PHYSICAL STATE: Solid

MELTING POINT: 347 – 361 F, 175 – 183 C

SPECIFIC GRAVITY (H₂O = 1): >1

SOLUBILITY IN WATER: Insoluble

Safety Data Sheet



Delrin 511P

ISSUE DATE: 12/29/2014

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID (STABILITY): High temperatures

INCOMPATIBILITY (MATERIAL TO AVOID): Incompatible with strong acids and bases (decomposes forming formaldehyde) and strong oxidizing agents. At melt temperatures, acetal resins are incompatible with halogenated polymers such as PVC and PVDC and any elastomers containing halogenated polymers, Even small amounts of such contaminants can cause sudden and spontaneous formaldehyde gas formation to occur.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon Monoxide, carbon dioxide, hydrocarbons and other possible toxic substances can be generated during thermal decomposition and combustion.

HAZARDOUS POLYMERIZATION: Not Applicable

CONDITIONS TO AVOID (POLYMERIZATION): Not Applicable

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: No data – In solid state, this material is not considered as being harmful to human health.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No data – This material does not harm the environment, but is not biodegradable.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of contents/containers in accordance with local, regional, national and international regulations.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION
Not regulated

Safety Data Sheet

Delrin 511P



ISSUE DATE: 12/29/2014

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): All ingredients are either exempt or listed on the TSCA Chemical Substance Inventory

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): This product contains no known toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40CFR372.

California Prop. 65: WARNING! This product contains a chemical known to the State of California to cause cancer. Formaldehyde, Quartz, Unspecified cobalt compounds, Acrylamide, Ethylene oxide

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Acrylamide, Ethylene oxide

The State of California, under Proposition 65, regulates Crystalline silica -airborne, unbound particles of respirable size as a carcinogen. In this product, crystalline silica is not supplied in the form regulated in California.

The following impurities, if still present at all, are below the indicated levels:

Acrylamide < 0.20PPM

Ethylene oxide < 0.10PPM

PA Right to Know: Regulated Chemical(s): Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): None known.

NJ Right to Know: Regulated Chemical(s): 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

16. OTHER INFORMATION

ADDITIONAL INFORMATION

MEDICAL USE: CAUTION – Do not use in medical applications involving permanent implantation in the human body.

Safety Data Sheet



Delrin 511P

ISSUE DATE: 12/29/2014

This Safety Data Sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe this information to be correct but cannot guarantee its accuracy or completeness. Health and safety precaution in this data sheet may not be adequate for all individuals and/or situations. It is the user's responsibility to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in the data sheet shall be construed as a permission or recommendation for the use of any product in a manner that may infringe existing patents. No warranty is made, either expressed or implied.