



MATERIAL SAFETY DATA SHEET

MSDS# 1000

SECTION 1

QUADRANT EPP
2120 FAIRMONT AVENUE
P.O. BOX 14235
READING, PA. 19612-4235

TELEPHONE NUMBERS:
PRODUCT INFORMATION(Quadrant EPP) -
610-320-6600
TRANSPORTATION EMERGENCY (CHEMTREC) -
800-424-9300

MATERIAL IDENTIFICATION

PRODUCT NAME: **DELTRIN AF, AF BLEND AND 588 AF PRODUCTS.**

CHEMICAL NAME: **POLYOXYMETHYLENE, FORMALDEHYDE HOMOPOLYMER (POM) ACETAL HOMOPOLYMER PLUS POLYTETRAFLUOROETHYLENE (PTFE).**

CAS NO.: **25231-38-3 (BASE POLYMER)**

PRODUCT USE: **ENGINEERING THERMOPLASTIC STOCK SHAPE FOR SUBSEQUENT FABRICATION.**

TSCA INVENTORY STATUS: **ALL REPORTABLE INGREDIENTS ARE LISTED IN THE TSCA CHEMICAL SUBSTANCE INVENTORY.**

SECTION 2

HAZARDOUS INGREDIENTS (ADDITIVES NOT HAZARDOUS BY 29 CFR 1910.1200)

IDENTITY	CAS#	CONCENTRATION	OSHA(PEL)	ACGIH(TWA)
POLYTETRAFLUOROETHYLENE	9002-84-0	14-21%	N/A	N/A

SECTION 3

HEALTH HAZARD DATA

ACUTE OR IMMEDIATE EFFECTS: ROUTES OF ENTRY AND SYSTEMS
INGESTION: **NOT A PROBABLE ROUTE OF EXPOSURE.**
SKIN: **MOLTEN ACETAL CAUSES THERMAL BURNS.**
EYE: **MECHANICAL IRRITATION ONLY.**
INHALATION: **SHAPES NOT RESPIRABLE.**

SECTION 4

EMERGENCY FIRST AID

- If exposed to fumes from overheating, move to fresh air. Consult a physician if symptoms persist.
- Wash skin with soap and plenty of water.
- Flush eyes with water. Consult a physician if symptoms persist.
- If molten acetal contacts skin, cool rapidly with cold water. Do not attempt to peel acetal from skin. Obtain medical attention to thermal burn.

CHRONIC EFFECTS: CHRONIC INHALATION STUDIES IN ANIMALS HAVE SHOWN THAT FORMALDEHYDE CAUSES NASAL CANCER IN RATS. THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER HAS CLASSIFIED FORMALDEHYDE AS A CARCINOGEN IN GROUP 2A, AND THE NATIONAL TOXICOLOGY PROGRAM INCLUDED FORMALDEHYDE IN IYS ANNUAL REPORT ON CARCINOGENS. THE OSHA TWA FOR FORMALDEHYDE IS 0.75 PPM. THE ACGIH TLV IS 1 PPM. THE OSHA AND ACGIH STEL IS 2 PPM.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY THIS MATERIAL: NO DATA IS AVAILABLE WHICH ADDRESSES MEDICAL CONDITIONS THAT ARE GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

SECTION 5FIRE AND EXPLOSION HAZARD DATA

FLASH IGNITION TEMPERATURE: 609 F./322 C. METHOD: ASTM D-1929

UNUSUAL FIRE, EXPLOSION HAZARDS: NONE KNOWN.

HAZARDOUS COMBUSTION PRODUCTS: HAZARDOUS GASES/VAPORS PRODUCED IN FIRE ARE CARBON MONOXIDE, FORMALDEHYDE, HYDROGEN FLUORIDE AND CARBONYL FLUORIDE.

SPECIAL FIRE FIGHTING INSTRUCTIONS: FIRE FIGHTERS AND OTHERS EXPOSED TO PRODUCTS OF COMBUSTION SHOULD WEAR FULL PROTECTIVE CLOTHING INCLUDING SELF-CONTAINED BREATHING APPARATUS. FIRE FIGHTING EQUIPMENT SHOULD BE THOROUGHLY DECONTAMINATED AFTER USE.

EXTINGUISHING MEDIA: WATER SPRAY OR ANY CLASS A EXTINGUISHING AGENT.

SECTION 6

ACCIDENTAL RELEASES

SPILL OR RELEASE: CLEAN UP BY VACUUMING OR SWEEPING TO PREVENT FALLS.

SECTION 7

STORAGE CONDITIONS

Dry storage. Keep containers closed to prevent contamination.

SECTION 8

PROTECTION INFORMATION

EYE: Safety glasses are recommended to prevent particulate matter from entering eyes while grinding or machining.

SKIN: Protective gloves are required when handling hot polymer. Also, long sleeve cotton shirt and long pants if handling molten polymer.

VENTILATION: Local exhaust at processing equipment to keep particulates below 15 mg/m³, the OSHA limit for nuisance dusts. Grinding and machining of parts should be reviewed to assure that particulate levels are kept at recommended levels. Also, formaldehyde fumes may be released during fabrication.

RESPIRATOR: None under normal processing, if ventilation is adequate. If formaldehyde concentration is above 1 ppm, as properly fitted NIOSH approved respirator is required.

SECTION 9

PHYSICAL/CHEMICAL DATA

APPEARANCE: STOCK SHAPE MAY BE ROD, PLATE, OR TUBE FORM.

ODOR: ESSENTIALLY ODORLESS.

MELTING POINT: 172 - 184 C./ 342 - 363 F.

SOLUBILITY IN WATER: INSOLUBLE

VOLATILE CONTENT %: <1%

SPECIFIC GRAVITY: 1.42

SECTION 10

HAZARDOUS REACTIVITY

STABILITY AT ROOM TEMPERATURE: **STABLE.**

MATERIALS TO AVOID: **STRONG ACIDS AND BASES, DECOMPOSES FORMING FORMALDEHYDE. STRONG OXIDIZING AGENTS.**

CONDITIONS TO AVOID: **HEATING ABOVE 230 C./ 446 F.- FORMS FORMALDEHYDE.**

SECTION 11

TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY: **DELRIN AF PRODUCT SHAPES ARE HARMLESS.**

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: **NO DATA IS AVAILABLE WHICH ADDRESSES MEDICAL CONDITIONS THAT ARE GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE TO THIS PRODUCT.**

CARCINOGENICITY: **REFER TO SECTION 4 (CHRONIC EFFECTS) FOR EFFECTS OBSERVED IN ANIMALS.**

SECTION 12

ECOLOGICAL INFORMATION

AQUATIC TOXICITY: **Toxicity is expected to be low based on insolubility of polymer in water.**

SECTION 13

DISPOSAL

SPILL OR RELEASE: **Clean up by vacuuming or wet sweeping to minimize dust exposure.**

WASTE DISPOSAL: **Landfill or incineration in compliance with federal, state, and local regulations.**

SECTION 14

TRANSPORT INFORMATION

DOT HAZARD CLASS: **NA**
SHIPPING NAME: **NA**

SECTION 15

REGULATORY INFORMATION

SECTION 313 SUPPLIER NOTIFICATION:
(SARA TITLE III-TOXIC CHEMICALS LIST)

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 40 CFR 372.

STATE RIGHT TO KNOW LAWS

No substances on the state hazardous list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated. While we do not specifically analyze these products, or the raw materials used in their manufacture, for substances on various state hazardous substances lists, to the best of our knowledge the products on this Material Safety Data Sheet contain no such substances except for those specifically listed below:

PENNSYLVANIA:

SUBSTANCES ON THE PENNSYLVANIA HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 1% OR MORE: **NONE KNOWN.**

SUBSTANCES ON THE PENNSYLVANIA SPECIAL HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 0.01% OR MORE: **NONE KNOWN.**

CALIFORNIA PROPOSITION 65:

SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER: **FORMALDEHYDE.**

SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM: **NONE KNOWN.**

HMIS RATING

Health	0
Flammability	1
Reactivity	0
PPE	A
#Acute *Chronic	

SECTION 16

MISCELLANEOUS INFORMATION

Prepared by: T.W. Swavely, Division Quality Manager

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The information set forth herein has been gathered from standard reference materials and/or supplier test data and is, to the best knowledge and belief of Quadrant EPP, accurate and reliable. Such information is offered solely for your consideration, investigation and verification, and it is not suggested or guaranteed that the hazard precautions or procedures mentioned are the only ones that exist. Quadrant EPP makes no warranties, expressed or implied, with respect to the use of such information or the use of the specific material identified herein in combination with any other material or process, and assumes no responsibility therefor.

NA = Not applicable

NE = Not established.

> = New or revised information in this section when " > " appears in the left margin.

END OF MSDS