

MATERIAL SAFETY DATA SHEET

MSDS# 0804

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: SEMITRON ESD 225

CHEMICAL NAME: POLYOXYMETHYLENE COPOLYMER (POM); ACETAL COPOLYMER

CAS NO.: 25214-85-1 (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	TVL (TWA)
FORMALDEHYDE	50-00-0	<0.005	1 PPM

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 ITS 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.

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS:

FORMALDEHYDE	OSHA	TWA VALUE 0.75ppm; STEL VALUE 2ppm, OSHA ACTION LEVEL 0.5ppm
	ACGIH	CLV 0.3ppm

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

SECTION 5

FIRE AND EXPLOSION HAZARD DATA

FLASH IGNITION TEMPERATURE: 608 F./ 320 C. METHOD: ASTM D-1929

UNUSUAL FIRE, EXPLOSION HAZARDS: NONE KNOWN.

HAZARDOUS COMBUSTION PRODUCTS: FORMALDEHYDE MAY BE RELEASED IF PRODUCT IS EXPOSED TO EXCESSIVE HEAT OR FIRE.

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.

PHYSICAL HEALTH HAZARDS: DUST MAY FORM EXPLOSIVE MIXTURES WITH AIR. AVOID DUST FORMATION AND CONTROL IGNITION SOURCES. ALL PLASTIC DUST PARTICLES SUSPENDED IN AIR ARE COMBUSTIBLE AND MAY BE EXPLOSIVE. KEEP AWAY FROM HEAT, SPARKS, FLAME, AND OTHER IGNITION SOURCES. PREVENT DUST ACCUMULATIONS AND DUST CLOUDS. EMPLOY GROUNDING, VENTING, AND EXPLOSIVE RELIEF PROVISIONS IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES AND NFPA PROVISIONS IN ANY PROCESS CAPABLE OF GENERATING DUST AND/OR STATIC ELECTRICITY. EXPLOSION HAZARDS APPLY ONLY TO DUSTS, NOT GRANULAR FORMS OF THIS PRODUCT. SEE ALSO SPECIAL PRECAUTIONS SECTION BELOW.

SECTION 6

ACCIDENTAL RELEASES

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

SECTION 7

STORAGE CONDITIONS

DRY STORAGE.

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, A PROPERLY FITTED NIOSH APPROVED RESPIRATOR IS REQUIRED.

SECTION 9

PHYSICAL/CHEMICAL DATA

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

ODOR: ESSENTIALLY ODORLESS.

MELTING POINT: 160 - 172 C./ 320 - 342 F.

SOLUBILITY IN WATER: INSOLUBLE

VOLATILE CONTENT %: <1%

SPECIFIC GRAVITY: 1.54

PRECAUTIONS FOR REPAIR & MAINTENANCE OF CONTAMINATED EQUIPMENT: ELIMINATE IGNITION SOURCES:

TRANSFER FROM STORAGE WITH A MINIMUM AMOUNT OF DUSTING. GROUND ALL TRANSFER, BLENDING, AND DUST COLLECTING EQUIPMENT TO PREVENT STATIC SPARKS IN ACCORDANCE WITH NFPA 70 "NATIONAL ELECTRIC CODE". REVIEW AND COMPLY WITH ALL RELEVANT NFPA PROVISIONS, INCLUDING BUT NOT LIMITED TO NFPA 484 AND NFPA 654 RELATED TO COMBUSTIBLE DUST HAZARDS. REMOVE ALL IGNITION SOURCES FROM MATERIAL HANDLING, TRANSFER, AND PROCESSING AREAS WHERE DUST MAY BE PRESENT. LOCAL EXHAUST VENTILATION SHOULD BE PROVIDED IN WORK AREA. Quadrant EPP

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 240 C./ 464 F.- FORMS FORMALDEHYDE.

SECTION 11

TOXICOLOGICAL INFORMATION

ECOLOGICAL INFORMATION

CHRONIC TOXICITY: SEMITRON ESD 225 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

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: RECYCLING IS ENCOURAGED, LANDFILL OR INCINERATION IN COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

TRANSPORT INFORMATION

SECTION 14

DOT HAZARD CLASS: NA SHIPPING NAME: NA

SECTION 15A

REGULATORY INFORMATION

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

THIS PRODUCT CONTAINS NO KNOWN TOXIC CHEMICALS SUBJECT TO THE 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.

HEALTH	0	
FLAMMABILITY	1	
REACTIVITY	0	
PPE	A	
#ACUTE *CHRONIC		

SECTION 15B LABELING INFORMATION

MISCELLANEOUS INFORMATION

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NA = Not applicable
NE = Not established.
> = New or revised information in this section when " > " appears
in the left margin.

END OF MSDS