



**MATERIAL SAFETY DATA SHEET**

**MSDS# 0400**

**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: **NYLATRON GSM & NYLATRON GSM-P**

CHEMICAL NAME: **EPSILON - CAPROLACTAM, CAST NYLON 6 - PLUS  
MOLYBDENUM DISULFIDE.**

CAS NO.: **25038-54-4 (BASE POLYMER)**

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

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

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**SECTION 2**

HAZARDOUS INGREDIENTS (THIS IS A POLYMERIC MATERIAL. ALL  
CONSTITUENTS ARE ENCAPSULATED WITHIN THE POLYMER SYSTEM AND  
THEREFORE PRESENT NO LIKELIHOOD OF EXPOSURE UNDER NORMAL CONDITIONS  
OF PROCESSING AND HANDLING)

IDENTITY	CAS#	CONCENTRATION	TVL (TWA)
<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

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**SECTION 3**

HEALTH HAZARD DATA

IMMEDIATE EFFECTS: ROUTES OF ENTRY AND SYSTEMS

INGESTION: **NOT A PROBABLE ROUTE OF EXPOSURE.**  
SKIN: **MOLTEN NYLON CAUSES THERMAL BURNS.**  
EYE: **MECHANICAL IRRITATION ONLY.**  
INHALATION: **SHAPES NOT RESPIRABLE.**

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## 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 polymer contacts skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical attention to thermal burn.

CHRONIC EFFECTS: **NONE KNOWN.**

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY THIS MATERIAL: **NONE KNOWN.**

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## SECTION 5

FIRE AND EXPLOSION HAZARD DATA

FLASH IGNITION TEMPERATURE: **752 F./400 C.** METHOD: **ASTM D-1929**

UNUSUAL FIRE, EXPLOSION HAZARDS: **NONE KNOWN.**

HAZARDOUS DECOMPOSITION PRODUCTS: **AT TEMPERATURES ABOVE 572 F./300 C., CARBON MONOXIDE, HYDROGEN CYANIDE AND NITROGEN GASSES WILL OCCUR.**

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

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

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**>= 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.

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**SECTION 6**ACCIDENTAL RELEASES

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

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**SECTION 7**STORAGE CONDITIONS

**DRY STORAGE.**

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**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/m<sup>3</sup>, the OSHA limit for nuisance dusts.**

**RESPIRATOR: None under normal processing, if ventilation is adequate.**

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## SECTION 9

PHYSICAL/CHEMICAL DATA

APPEARANCE: **STOCK SHAPE MAY BE ROD, PLATE, OR BUSHING.**

ODOR: **ESSENTIALLY ODORLESS.**

MELTING POINT: **212-230 C./ 413-446 F.**

SOLUBILITY IN WATER: **INSOLUBLE**

VOLATILE CONTENT %: **<1%**

SPECIFIC GRAVITY: **1.15-1.18**

**>= 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.

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## SECTION 10

HAZARDOUS REACTIVITY

STABILITY AT ROOM TEMPERATURE: **STABLE.**

MATERIALS TO AVOID: **STRONG ACIDS AND OXIDIZING AGENTS.**

CONDITIONS TO AVOID: **HEATING ABOVE 300 C./ 572 F.**

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## SECTION 11

TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY: **NYLATRON GSM DOES NOT APPEAR TO POSSESS ANY TOXICOLOGICAL PROPERTIES.**

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: **THERMAL DECOMPOSITION PRODUCTS OF NYLON HAVE BEEN REPORTED TO BE IRRITATING TO THE MUCUS MEMBRANES AND RESPIRATORY TRACT.**

CARCINOGENICITY: **NONE KNOWN.**

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## SECTION 12

ECOLOGICAL INFORMATION

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

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## 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.

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## SECTION 14

TRANSPORT INFORMATION

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

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**SECTION 15A  
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: **NONE KNOWN.**

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

**SECTION 15B  
LABELING INFORMATION**

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

**SECTION 16**MISCELLANEOUS INFORMATION

Issued by: Richard Frey, SHE Manager, NA

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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**