



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: UNINOR PPO BK Black Polyphenylene Oxide
PRODUCT USE: Engineering/Industrial grade thermoplastic stock shapes for subsequent machining and fabrication.
MANUFACTURER: Nytec Plastics, Ltd.
633 Dunksferry Rd.
Bensalem, PA 19020
Website: www.nytefplastics.com

PHONE NUMBERS:

PRODUCT INFORMATION: 215 638-0800 (Monday – Friday, 8:30 am – 5:00 pm)
800 646-9833 (Monday – Friday, 8.30 am – 5:00 pm)
TRANSPORT EMERGENCY: 800 424-9300 (CHEMTREC) (24 hrs)

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME /CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Polyphenylene ether (PPO)	25134-01-4	50 – 100
High Impact Polystyrene (HIPS)	9003-55-8	< 50
Polystyrene	9003-53-6	< 50
Carbon Black	1333-86-4	0.1 –1.0
Triphenyl Phosphate	115-86-6	0.1 - 1.0

SECTION 313 SUPPLIER NOTIFICATION:

All ingredients that are listed as toxic chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40CFR part 372 are listed in Section 15: Regulatory Information.

HAZARDOUS INGREDIENTS:

Components listed below are physical or health hazards as defined in the Hazard Communication Standard. The quantities represent typical or average values for the materials shown. Additional compositional data is provided in Section 15: Regulatory Information, subject to supplier notification requirements.

<u>Component Name</u>	<u>%</u>	<u>CAS Number</u>	<u>OSHA PEL</u>	<u>ACGIH TWA</u>
PHOSPHORIC ACID, TRIPHENYL ESTER	1 - 5	115-86-6	3 mg/m ³ TWA	3 mg/m ³ TWA
CARBON BLACK	0.1 - 1	1333-86-4	3.5 mg/m ³ TWA	3.5 mg/m ³ TWA

3. HEALTH HAZARDS IDENTIFICATION

ACUTE OR IMMEDIATE EFFECTS/ROUTES OF EXPOSURE:

INGESTION: No hazard in normal industrial use.
SKIN: Unlikely to cause irritation even on repeated contact and no absorption hazard in normal industrial use.
EYES: Can cause mechanical irritation if dusts are generated.
INHALATION: Shapes are not considered an inhalation hazard.



3. HEALTH HAZARDS IDENTIFICATION (continued)

LONG TERM/DELAYED EFFECTS: None Known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None Known.

CHRONIC/CARCINOGENICITY:

NTP: Not tested.
OSHA: Not regulated.
IARC: Not listed.

MEDICAL RESTRICTIONS: There are no known human health effects aggravated by exposure to this product. However, certain sensitive individuals and individuals with respiratory impairments may be affected by exposure to components in the processing vapors.

4. FIRST AID MEASURES

SKIN: If molten polymer contacts skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical attention for thermal burns.

EYES: In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician if symptoms persist.

INHALATION: If exposure to fumes from overheating, move to fresh air. consult a physician if symptoms persist.

5. FIRE FIGHTING MEASURES

AUTOIGNITION TEMPERATURE: 490 C (914 °F), estimated.

CONDITIONS OF FLAMMABILITY: Requires a continuous flame source to ignite.

HAZARDOUS PRODUCTS OF COMBUSTION:

Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, carbon dioxide and hydrocarbon fragments.

EXTINGUISHING MEDIA: Water spray and foam. Water is the best extinguishing medium. Carbon dioxide and dry chemical are not generally recommended because their lack of cooling capacity may permit re-ignition.

SPECIAL FIRE FIGHTING INSTRUCTIONS / PRECAUTIONS:

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.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR RELEASE: Clean up by vacuuming or sweeping to prevent falls.



7. HANDLING AND STORAGE

HANDLING: Open containers only in well-ventilated area.
STORAGE: Dry storage. Keep containers closed to prevent contamination.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION: Local exhaust at processing equipment to keep particulates below 15 mg/m^3 , the OSHA limits for nuisance dusts. Grinding and machining of parts should be reviewed to assure that particulate levels are kept below recommended standards.

PROTECTIVE EQUIPMENT:

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

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

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

EXPOSURE GUIDELINES: Grinding and machining of parts should be reviewed to assure that particulate levels are kept below recommended standards. This material may contain carbon black (UNITEM PEI BK). See the exposure limits below:

<u>INGREDIENT</u>	<u>AGENCY</u>	<u>VALUE</u>
PARTICULATES	PEL (OSHA)	15 mg/m^3 total dust 5 mg/m^3 respirable dust
CARBON BLACK	OSHA PEL ACGIH TLV	3.5 mg/m^3 3.5 mg/m^3

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Stock shape may be rods or plates of different sizes. Black color.
ODOR: Slight or no odor.
MELTING POINT: This product does not exhibit a sharp melting point, but softens gradually over a wide temperature range.
SOLUBILITY IN WATER: Insoluble
SPECIFIC GRAVITY: 1.08
PERCENT VOLATILES: Negligible.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable at normal temperatures and storage conditions.
CONDITIONS TO AVOID: None known for shapes.
MATERIALS TO AVOID: Not reactive.



11. TOXICOLOGICAL INFORMATION

CHRONIC TOXICITY: UNINOR extruded shapes are harmless.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:

There are no known human health effects aggravated by exposure to this product.

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATION

WASTE DISPOSAL: Preferred options are: recycling, incineration with energy recovery, and landfill. Disposal must be in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT HAZARD CLASS: Not regulated.

SHIPPING NAME: Not regulated.

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 CFR372.

TSCA INVENTORY STATUS:

In compliance with TSCA inventory requirements for commercial purposes.

STATE REGULATIONS:

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 MSDS, 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 MSDS 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 or reproductive hazard: Toluene, Carbon Black

Component	Reason Listed	CAS #	%
TOLUENE	Development Toxicity, Initial date 1/1/91	108-88-3	<0.1
CARBON BLACK		1333-86-4	<0.1



15. REGULATORY INFORMATION (continued)

STATE REGULATIONS (continued):

NEW JERSEY: 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): None Known.

HMIS RATING

HEALTH	0
FLAMMABILITY	1
REACTIVITY	0
PPE	B

16. OTHER INFORMATION

PREPARED BY: Technical Team
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REVISION DATE: November 10, 2008 **Rev. 2**

SUPERCEDES REVISION DATED: May 21, 2007

REVISION SUMMARY: Nytef Plastics, Ltd. has moved its manufacturing facility to the address shown above.

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 NYTEF PLASTICS, Ltd., 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. NYTEF PLASTICS, Ltd. 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 therefore.

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END OF MSDS