SAFETY DATA SHEET REV. 05/15/2015

The information listed within this SDS is solely designated for the finished processed sheet. The information listed is to the best of our knowledge, accurate and reliable. However, there is no warranty or guarantee that can be made to its accuracy, reliability or completeness

Noryl®

SECTION 1: IDENTIFICATION

Product Name: Noryl®
Product Number: NOR-[NUMBERCODE] [e.g., NUMBERCODE = COLOR, SURFACE, GAGE, WIDTH-LENGTH]
Physical State: Solid
Color: Natural processed color is translucent to opaque white (Colorants can be added)
Odor: Faint, mild hydrocarbon odor.
Type of Use: Building Materials, Signs, and Fabricated Products
FDA Status: N/A
Company Business / Emergency Contact
King Plastic Corporation
1100 N. Toledo Blade Boulevard
North Port, FL 34288 | Tel. 941-493-5502

SECTION 2: HAZARD(S) IDENTIFICATION

Classification of Hazards
While in normal usage form, this material does not meet or exceed requirements to be classified as a hazardous chemical in accordance with the GHS aligned OSHA Hazardous Communication Standard 29CFR1910.1200 Appendix A, and Appendix B. However, when subjected to processing methods that increase the material temperature, or result in production of material dusts, certain precautions become necessary.
Signal Word and Precautionary Statement (Non-mandatory)
CAUTION!
Product is a clear to white, non-toxic solid sheet material having minimal odor. Dusts and heat-released air emissions may be irritating to the eyes, skin, and respiratory system. Under fire conditions, product will readily burn and emit a heavy, irritating smoke. Contact with molten material may cause serious thermal bums.
Identification Symbols or Labels
Not Applicable
Potential Health Effects
- Can burn in a fire creating dense smoke
- Molten plastic can cause severe thermal burns
- Fumes produced during melt processing may cause eye, skin, and respiratory tract irritation. Severe over-exposure may result in nausea, headache, chills, and fever. See below for additional effects.
- Secondary operations, such as grinding, sanding, or sawing can produce dust which may present an explosion or respiratory hazard.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	Percent by Wt.	CAS #
Polyphenylene ether	>=99	CAS# 25134-01-04
Additives*	0-1	N/A

Additional Information
* Other chemical additives including antioxidants, UV stabilizers, processing aids and slip agents may be formulated into various polyethylene resin grades in a total concentration of less than 1% wt. /wt.
Trade Secret(s) – Compositions given are typical values not specifications. Identity of Resin Manufacturers, Additive Component
Manufacturers and exact percentage of blends are proprietary information.

SECTION 4: FIRST AID MEASURES

Eyes: Remove contact lenses, if it can be done safely. Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention if symptoms develop or persist.
Skin: Remove dusty or contaminated clothing and shoes. For skin contact, wash affected area with soap and water. Seek medical attention if symptoms develop or persist. In case of contact with molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product, or molten product that has cooled, from skin without medical assistance.
Inhalation: Move affected individual to non-contaminated air. Loosen tight clothing such as a collar, tie, belt or waistband to facilitate breathing. Seek immediate medical attention if the individual is not breathing, is unconscious or if any other symptoms persist. Inhalation of smoke following a fire may result in delayed pulmonary edema; seek immediate medical attention.
Ingestion: Material is not expected to be absorbed from the gastrointestinal tract. DO NOT INDUCE VOMITING. Loosen tight clothing such as a collar, tie, belt or waistband. Seek immediate medical attention.
Notes to Physician: After adequate first aid, no further treatment is necessary, unless symptoms reappear. Burns should be treated as thermal burns. Molten resin will come off as healing occurs; therefore, immediate removal from the skin is not necessary. Treatment should be directed at the control of symptoms and the clinical condition of the patient. Ingested material should pass through the digestive system without injury.

SECTION 5: FIRE FIGHTING MEASURES

Autoignition Temperature: 490 °C (914°F), estimated

Explosive Limits Upper: Not determined Lower: Not determined

Suitable Extinguishing Media: Use dry chemical, CO2, water spray or "alcohol" 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 on larger resin fires (blobs, drools, etc.).

Unsuitable Extinguishing Media for Safety Reasons: Do not use a solid water stream as it may scatter and spread fire.

Hazards from Combustion Products: Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, hydrocarbon fragments.

Special Protective Equipment for Firefighters: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products

Specific Hazards: Take precautionary measures against static discharges. During processing, dust may form explosive mixture in air. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: ACCIDENTAL RELEASE

Clean up: Sweep up and shovel into suitable containers for disposal. Do not create a powder cloud by using a brush or compressed air.
Personal Precautions: See section 8.
Environmental Precautions: Do not flush into surface water or sanitary sewer system. Material should not be released into the environment.

SECTION 7: HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practices. Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation. All metal parts of the mixing and processing equipment must be earthed.
Storage: Store in closed container in a dry and cool area. Keep away from heat sources and sources of ignition.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures to Reduce Exposure: Handle in accordance with good industrial hygiene and safety practice. Provide for appropriate exhaust ventilation at machinery. Processing fume condensate may be a fire hazard and toxic; remove periodically from exhaust hoods, ductwork, and other surfaces using appropriate personal protection.

Hand Protection: Protective gloves should be worn

Eye Protection: Safety glasses with side-shields or chemical goggles. In addition, use full-face shield when cleaning processing vapor condensates from hood, ducts, and other surfaces.

Respiratory Protection: When using this product at elevated temperatures, implement engineering systems, administrative controls or a respiratory protection program (including a respirator approved for protection from organic vapors, acid, gases, and particulate matter) if processing vapors are not adequately controlled or operators experience symptoms of overexposure. If dust or powder are produced from secondary operations such as sawing or grinding, use a respirator approved for protection from dust.

Body Protection: Long sleeved clothing

Hygiene Measures: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid Appearance
Color: Per order
Odor: None or slight
Melting point/range: This product does not exhibit a sharp melting point but softens gradually over a wide range of temperatures.
Auto ignition Temperature: 490 °C (914°F) estimated
Vapor Pressure: Negligible
Water Solubility: Insoluble
Evaporation Rate: Negligible
Specific gravity: >1; (water = 1)
VOC content (%): Negligible
Explosive Limits Upper: Not determined Lower: Not determined

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under ambient conditions.
Conditions to Avoid: Avoid temperatures above 490°C. To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous. Do not exceed melt temperature recommendations in product literature.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Exposure
Eyes, Inhalation, or Skin This product when in sheet material presents no likely route of exposure. However, when machined or processed, or heated, possible exposure can occur by routes stated above.
Symptoms (characteristic)
Physical:
Hot material may cause thermal burns. Mechanical irritation to skin, eyes, and throat may occur with exposure to dust and small particles.
Chemical:
Inhalation of process fumes and vapors may cause soreness in the nose and throat and coughing.
Toxicological:
This material is considered essentially inert and non-toxic. It has no known acute health effects.
Delayed and Immediate Effects:
Coughing, throat soreness, possible redness of skin, or eyes, or throat.

SECTION 11: TOXICOLOGICAL INFORMATION cont.

LD50/oral/rat: >15 g/kg (estimated)
LD50/dermal/rabbit: >2 g/kg estimated
Inhalation: Processing fumes from PPE resin are not considered toxic. In acute inhalation tests, laboratory rats were exposed to processing fumes at concentrations exaggerating those that would likely occur in workplace situations. During the exposure periods (6 hour duration) signs of eye and nasal irritation were observed. These signs of irritation disappeared shortly after the animals were removed from the exposure chamber. No deaths or signs of toxicity were noted during the fume exposure period. There were no distinct or consistent treatment related tissue or organ changes noted in gross necropsies.
Eye Contact: Resin particles, like other inert materials, are mechanically irritating to eyes.
Skin Contact: Not a hazard with pellets during normal industrial use.
Ingestion: Ingestion unlikely due to physical form.
Chronic Toxicity: No information available
Sub chronic Toxicity: In a 13 week dust inhalation study, laboratory rats were exposed to up to 50 mg/m3 PPE dust for 6 hrs./day for 13 weeks with a 13-week non-exposure recovery period. There was no evidence of systemic toxicity at the highest dose. Localized toxicity was observed in the lungs and regional lymph nodes of the 50 mg/m3 exposure group. These findings decreased in severity in the 7 and 1 mg/m3 exposure groups. A no adverse effect level for PPE is estimated to be 7 mg/m3 and a no observable effect level is 1 mg/m3.
Primary Irritation: Substance does not generally irritate and is only mildly irritating to the skin.
IARC: Not listed **OSHA:** Not regulated **NTP:** Not tested

SECTION 12: ECOLOGICAL INFORMATION (non-mandatory)

The content of this section is considered non-mandatory by OSHA because it concerns matters handled by other agencies.

SECTION 13: DISPOSAL CONSIDERATIONS (non-mandatory)

The content of this section is considered non-mandatory by OSHA because it concerns matters handled by other agencies.

SECTION 14: TRANSPORT INFORMATION (non-mandatory)

The content of this section is considered non-mandatory by OSHA because it concerns matters handled by other agencies.

SECTION 15: REGULATORY INFORMATION / SAFETY, HEALTH AND ENVIRONMENTAL (non-mandatory)

The content of this section is considered non-mandatory by OSHA because it concerns matters handled by other agencies.

SECTION 16: OTHER INFORMATION

Special Considerations:
Exposure to the Hazardous Combustion and Decomposition Products as described in SDS Sections 5 and 10 may be linked with various acute and chronic health effects. These effects include irritation of eyes and upper respiratory tract primarily from the aldehydes, breathing difficulties, systemic toxicity such as liver, kidney, and central nervous system effects. Polyethylene fines and dust particles are listed as a Class I combustible dust by the National Fire Protection Association (see NFPA-68, Table F.1). For additional information on control of static and minimizing potential dust and fire hazards, refer to NFPA-654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids, 2006 Edition".