1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Polyken 1027 Primer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Description</td>
<td>Pipe Corrosion Protection</td>
</tr>
<tr>
<td>Manufacturer/Supplier</td>
<td>Berry Plastics Corporation, Tapes and Coatings Division</td>
</tr>
<tr>
<td>Address</td>
<td>2320 Bowling Green Road</td>
</tr>
<tr>
<td></td>
<td>Franklin, Kentucky</td>
</tr>
<tr>
<td>Phone Number</td>
<td>(270) 586-3261 (Monday – Friday 8:00 am to 5:00 pm)</td>
</tr>
<tr>
<td>Chemtrec Number</td>
<td>(800) 424-9300</td>
</tr>
<tr>
<td>Revision Date</td>
<td>May 16, 2008</td>
</tr>
<tr>
<td>MSDS Date</td>
<td>November 15, 2007</td>
</tr>
</tbody>
</table>

This MSDS has been compiled in accordance with - EC Directive 91/155/EC - OSHA's Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>EU Main Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>R11 Highly flammable.</td>
</tr>
<tr>
<td>R36/38 Irritating to eyes and skin.</td>
</tr>
<tr>
<td>R45 May cause cancer.</td>
</tr>
<tr>
<td>R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.</td>
</tr>
<tr>
<td>R63 Possible risk of harm to the unborn child.</td>
</tr>
<tr>
<td>R65 Harmful: may cause lung damage if swallowed.</td>
</tr>
<tr>
<td>R67 Vapours may cause drowsiness and dizziness.</td>
</tr>
</tbody>
</table>

Routes of Entry
- Absorption - Eye contact - Ingestion - Inhalation - Skin contact

Carcinogenic Status
See Section 11.

Target Organs
Central Nervous System - Skin - Eye - Liver - Kidney - Respiratory System - Reproductive

Health Effects - Eyes
Liquid, mist or vapor may cause pain, transient irritation and superficial corneal effects.

Health Effects - Skin
Material may cause irritation. Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis. Material can be absorbed through the skin and cause effects similar to those resulting from inhalation.

Health Effects - Ingestion
Swallowing may have the following effects:
- abdominal pain - vomiting - central nervous system depression - kidney damage - liver damage – testis damage – aspiration into the lungs may occur during ingestion or vomiting causing lung damage
A large dose may have the following effects:
- systemic effects similar to those resulting from inhalation
2. HAZARDS IDENTIFICATION

Health Effects - Inhalation
Exposure to vapor may have the following effects:
- irritation of nose, throat and respiratory tract
- central nervous system depression
- dizziness
- drowsiness
- headache
- mental confusion
Exposure to vapor at high concentrations may have the following effects:
- nerve damage leading to numbness and muscle weakness
- lung damage
- liver damage
- kidney damage
- testis damage
- adverse reproductive effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS#/Codes</th>
<th>Concentration</th>
<th>R Phrases</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic Petroleum</td>
<td>64742-89-8</td>
<td>60 - 80%</td>
<td>R45, R65</td>
<td>T, Xn, Carc Cat. 2</td>
</tr>
<tr>
<td>Distillate</td>
<td>265-192-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>5 - 10%</td>
<td>R11, R38, R48/20, F, Xn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>203-625-9</td>
<td></td>
<td>R63, R65, R67</td>
<td></td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>&lt;5%</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>215-609-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polymers and Resins</td>
<td>N.A.</td>
<td>&lt;25%</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eyes
Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin
Immediately flood the skin with large quantities of water for at least 15 minutes, preferably under a shower. Remove contaminated clothing and continue washing. Contaminated clothing should be washed or dry-cleaned before re-use. Obtain medical attention if blistering occurs or redness persists.

Ingestion
Do not induce vomiting, unless directed to do so by a physician. Have victim drink 1-3 glasses of water to dilute stomach contents. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

Inhalation
Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

Advice to Physicians
Treat symptomatically.

5. FIRE- FIGHTING MEASURES

Extinguishing Media
Use foam, dry chemical or carbon dioxide. Be aware of the possibility of re-ignition. Keep containers and surroundings cool with water spray.

Unusual Fire and Explosion Hazards
Vapors can travel a considerable distance to a source of ignition and flashback. Flashback can occur if air temperature exceeds flash point. Be aware of possibility of re-ignition.

Protective Equipment for Fire-Fighting
Wear full protective clothing and self-contained breathing apparatus.
6. **ACCIDENTAL RELEASE MEASURES**

Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal. Wear appropriate protective clothing. Eliminate all sources of ignition. Use non-sparking scoops for flammable materials. Vapors can accumulate in low areas. Consider need for evacuation. Prevent the material from entering drains or watercourses. Notify authorities if spill has entered watercourse or sewer or has contaminated soil or vegetation.

7. **HANDLING AND STORAGE**

Use in well ventilated area. Use local exhaust ventilation. Avoid inhaling vapor. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.

Store away from sources of heat or ignition. Storage area should be: - cool - dry - well ventilated - out of direct sunlight – away form sources of ignition(heat, sparks, flames, pilot lights) - away from incompatible materials (see Section 10)

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational Exposure Standards**
Exposure limits are listed below, if they exist.

**Toluene**
ACGIH: TLV 20 ppm (75 mg/m$^3$) 8h TWA
OSHA: PEL 200 ppm 8h TWA. 300 ppm CEILING, 500 ppm 10-min peak per shift.

**Aliphatic Petroleum Distillate**
ACGIH: TLV 300 ppm (1370 mg/m$^3$) 8h TWA (as VM&P naphtha 8032-32-4)
OSHA: PEL 500 ppm (2000 mg/m$^3$) 8h TWA. (as Petroleum distillates)

**Carbon Black**
ACGIH: TLV 3.5 mg/m$^3$ 8h TWA
OSHA: PEL 3.5 mg/m$^3$ 8h TWA

**Polymers and Resins**
None assigned.

**Engineering Control Measures**
Use engineering methods to prevent or control exposure. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

**Respiratory Protection**
Wear respiratory protection if there is a risk of exposure to high vapor concentrations, aerosols or if applied to hot surfaces. A NIOSH approved full face respirator may be worn. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

**Hand Protection**
Butyl gloves are recommended.

**Eye Protection**
Chemical goggles or safety glasses with side shields. Consider the use of a face shield if splashing is possible.

**Body Protection**
If there is danger of splashing, wear: - overall or apron

9. **PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Odor</td>
<td>Light Hydrocarbon</td>
</tr>
<tr>
<td>pH</td>
<td>No data</td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density (lbs/gal)</td>
<td>No data</td>
</tr>
<tr>
<td>Boiling Range/Point (°C/F)</td>
<td>No data</td>
</tr>
<tr>
<td>Melting Point (°C/F)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash Point (°F)</td>
<td>Est. 40 – 50 °F</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Slower than ether</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Negligible</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Heavier than air.</td>
</tr>
<tr>
<td>VOC</td>
<td>78.9%</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

- **Stability**
  - Stable under normal conditions.

- **Conditions to Avoid**
  - Heat, sparks, flames
  - High temperatures
  - Sources of ignition
  - Contact with incompatible materials

- **Materials to Avoid**
  - Strong oxidizing agents
  - Acids
  - Bases
  - Reducing agents
  - Halogens
  - Hydrogen

- **Hazardous Polymerization**
  - Will not occur.

- **Hazardous Decomposition Products**
  - Oxides of carbon
  - Hydrocarbons
  - Phenolic vapors
  - Aldehydes
  - Smoke
  - Fumes

11. TOXICOLOGICAL INFORMATION

- **Acute Toxicity**
  - Toluene: Oral LD50 rat >2,000 mg/kg. Dermal LD50 rabbit >3,000 mg/kg

- **Chronic Toxicity/Carcinogenicity**
  - Aliphatic Petroleum Distillate (as VM&P naphtha 8032-32-4): ACGIH Carcinogen Category: A3
  - (Confirmed Animal Carcinogen with Unknown Relevance to Humans)

  - This product contains carbon black which is classified by IARC as a Group 2B possible human carcinogen. When encapsulated in the liquid matrix the risk of exposure is reduced.

- **Genotoxicity**
  - This product is not expected to cause any mutagenic effects.

- **Reproductive/Developmental Toxicity**
  - Toluene: In laboratory studies, birth defects, increased fetal lethality and delayed fetal development have been observed in offspring of female animals exposed during pregnancy. Toluene has been demonstrated to be embryo-fetotoxic and teratogenic in laboratory animals.

12. ECOLOGICAL INFORMATION

- **Mobility**
  - No relevant studies identified.

- **Persistence/Degradability**
  - No relevant studies identified.

- **Bio-accumulation**
  - No relevant studies identified.
12. ECOLOGICAL INFORMATION

Ecotoxicity
Toluene: LC50 Fathead minnow (Pimephales promelas) 96 h 26 ppm. EC50 Daphnia magna 48 h 11.5 ppm

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near to the container. Use non-sparking tools. Do not incinerate closed containers. Empty containers may contain hazardous residues. Dispose of containers with care.

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data
Coating Solution (3) UN1139, II
UN Proper Shipping Name
Coating Solution
UN Class
(3)
UN Number
UN1139
UN Packaging Group
II
Classification for AIR
Consult current IATA Regulations prior to shipping by air.
Transportation (IATA)

15. REGULATORY INFORMATION

EU Label Information
Classification and labelling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments(2001/60/EC and 2006/8/EC)
EU Hazard Symbol and Indication of Danger
T- Toxic
F- Flammable
R phrases
R11 Highly flammable.
R36/38 Irritating to eyes and skin.
R45 May cause cancer.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63 Possible risk of harm to the unborn child.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.
S phrases
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37 Wear suitable protective clothing and gloves.
S45 In case of accident or if you feel unwell, seek medical advice immediately.
S53 Avoid exposure – obtain special instructions before use.
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS
TSCA Listing
All ingredients have been verified for inclusion on the EPA Toxic Substance Control Act Chemical Substance Inventory.
15. REGULATORY INFORMATION

**EINECS Listing**
All ingredients in this product have not been verified for inclusion on the European Inventory of Existing Commercial Chemical Substances (EINECS).

**DSL (Canadian) Listing**
All ingredients in this product have not been verified for inclusion on the Domestic Substance List (DSL).

**MA Right To Know Law**
This product contains the following chemicals found on the Massachusetts Substance List (MSL).
- Toluene (108-88-3) 5 -10 %– Methanol (67-56-1) <1% - Xylene (1330-20-7) <1%

**PA Right To Know Law**
This product contains the following chemicals found on the Pennsylvania Hazardous Substance List:
- Carbon black (1333-86-4) < 5% - Toluene (108-88-3) 5 -10 % – Methanol (67-56-1) <1% - Xylene (1330-20-7) <1% - Ethylbenzene (100-41-4) <0.1%

**NJ Right To Know Law**
This product contains the following chemicals found on the NJ Right To Know Hazardous Substance List: Toluene (108-88-3) 5 -10 % – Methanol (67-56-1) <1% - Xylene (1330-20-7) <1% - Carbon black (1333-86-4) < 5%

**California Proposition 65**
This product contains the following materials which the State of California has found to cause cancer, birth defects or other reproductive harm:
- Toluene (108-88-3) - Ethylbenzene (100-41-4) - Formaldehyde (50-00-0) trace – Benzene (71-43-2)

**WHMIS Classification**
B2.D2A
This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

**SARA Title III Sect. 311/312 Categorization**
Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard, Fire Hazard

**SARA Title III Sect. 313**
This product contains a chemical that is listed in Section 313 at or above de minimis concentrations. The following listed chemicals are present: Toluene (108-88-3)

16. OTHER INFORMATION

**NFPA Ratings**
- NFPA Code for Flammability - 4
- NFPA Code for Health - 2
- NFPA Code for Reactivity - 0
- NFPA Code for Special Hazards – None

**HMIS Ratings**
- HMIS Code for Flammability - 4
- HMIS Code for Health - 2
- HMIS Code for Reactivity - 0
- HMIS Code for Personal Protection - See Section 8

**Abbreviations**
- N/A: Denotes no applicable information found or available
- CAS#: Chemical Abstracts Service Number
- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- STEL: Short Term Exposure Limit
16. OTHER INFORMATION

NTP: National Toxicology Program
IARC: International Agency for Research on Cancer
R: Risk
S: Safety

For further Information email: msdstechnical@berryplastics.com

Prepared By: EnviroNet LLC.

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