KOLON PLASTICS, INC.

# MATERIAL SAFETY DATA SHEET

**poly(buthylene terephthalate) - SPESIN**

## 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

| | |
|---|---|
| **PRODUCT** | Poly(buthylene terephthalate) |
| **TRADE NAME** | SPESIN KP212G15V0(S) |
| **RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE:** | |
| **RECOMMENDED USE OF THE CHEMICAL** | Injection molding |
| **RESTRICTIONS ON USE** | N.A |
| **SUPPLIER'S DETAILS** | N.A |
| **MANUFACTURER NAME** | KOLON PLASTICS, Inc. |
| **ADDRESS** | Kolon Tower, 1-22, Byelyang-Dong, Kwacheon-City Kyunggi-Do, S.Korea |
| **EMERGENCY PHONE** | (82) 2-3677-3580 ~ 3588 |

## 2. HAZARDS IDENTIFICATION

| | |
|---|---|
| **CLASSIFICATION HAZARDS** | This product is not classified as dangerous. |
| **WARNING SIGN PERTAINING TO PREVENTIVE MESURE WORDS** | |
| **PICTORIAL SYMBOLS** | N.A |
| **SIGNAL WORDS** | N.A |
| **HAZARDS WORDS** | N.A |
| **PREVENTIVE MESURE WORDS** | N.A |

* N.A : Not Applicable

**OTHER HAZARDS NOT INCLUDED CLASSIFICATION HAZARDS**

| | | | | | |
|---|---|---|---|---|---|
| health | 1 | fire | 0 | reactivity | 0 |

## 3. COMPOSITION / INFORAMTION ON INGREDIENTS

| | | |
|---|---|---|
| **CHEMICAL NAME** | Polymer : poly(1,4-butylene tere-phthalate) | |
| **CHEMICAL FORMULA** | Polymer: [(C8H4O2)-(C4H8O2)]n | |
| **GENERAL NAME** | poly(buthylene terephtalate) | |
| **ABBREVIATION NAME** | PBT | **Contents** |
| **CAS NO.** | Polymer : 26062-94-2 | >55% |
| | Glass Fiber : 65997-17-3 | =15±3% |
| | Brominated Epoxy Resin : 68928-70-1 | <20% |
| | Antimony Trioxide : 1309-64-4 | <10% |

## 4. FIRST-AID MEASURES

**INHALATION**

- In working you inhalate the gas, go to avoid that area and breath fresh air.
- When excessivly, after doing above state and take a measure with doctor

**SKIN CONTACT**

- Cool it with proper water, when the molten flow contact.
- Don't remove it enhancing the skin when it is attached very critically
- In allergic conditon, wash it with clean water and soap
- With injured, go to doctor for measure

**EYE CONTACT**

- If not hot comes, wash eye with flowing, clean water
- Don't rub eye, wash it with blink
- If hot melten contact, go to doctor immediately for measure

**INGESTION**

- Vomit it after drinking several cup of water if not hot material
- In case of hot material, drinking clean water and take a measure from doctor

## 5. FIRE-FIGHTING MEASURES

**EXTINGUISH KNACK**

- Occupy safty distance, and spray an extinguisher of fiber
- If there is not extingusher available, use sand or hydrant
- Firefighter should wear proper protective equipment
- Take the people shelter who is near by.
- The harzard gas can be occured when combusting

  Gas can be occured : Carbon Dioxide
  Carbon Monooxide
- Note, sometimes water might be not available, when extinguishment

**A KIND OF EXTINGUISHMENT**

- ABC POWDER, HARON EXTINGUISHMENT, SAND, CARBONDIOXIDE, WATER, etc

**FIREFIGHTING PROTECTIVE EQUIPMENT**

- Full firefighting turn-out gear (bunker gear).
- Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.
- Any self-contained breathing apparatus with a full facepiece.

## 6. ACCIDENTAL RELEASE MEASURES

**MEASURES FOR HANDLING PERSONNEL**

- Shut off all sources of ignition : no flames, no smoking in area

**MEASURES FOR ENVIRONMENTAL EFFECTS**

- Take away in assortment
- Don't discharge to river

**MEASURES WHEN HANDLING SPILLED SUBSTANCES**

- Keep it saperately after having it sweeped

## 7. HANDLING AND STORAGE

### HANDLING

**Exposure control for handling personnel**

- Use only in the well-ventilated areas
- Don't breathe dust
- When using, don't somke and don't have igniter

**Protective measures against & explosion**

- Shut off all gas polot and electrical(spark or hot wire)ignites and other sources of ignition
- during use and until all vapors(odors) are gone.
- Prevent deposition of dust.
- Don't expose to friction or shock
- Prevent build-up of electostatic charges (e-g . by grounding)
- In case of fire and/or explosion, don't breathe fumes.

**Others**

- Avoid rough handling or dropping
- Don't flush to sewer or waterways.
- Don't mix with : In a molding machine : acids

### STORAGE

- Make it packed to prevent the moisture
- Keep away from heat, steam pipe or sunlight.
- Incompatibility (Specific materials to be avoided) : acids, bases, oxydizing agents, water

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

**Control parameter e.g. occupational exposure limit values or biological limit values**

| | |
|---|---|
| - local regulation | N.A |
| - ACGIH regulation | N.A |
| - biological limit values | N.A |

**Appropriate engineering controls**

- Use only in the well-ventilated areas
- Don't breathe dust
- When using, don't somke and don't have igniter
- Shut off all gas polot and electrical(spark or hot wire)ignites and other sources of ignition
- during use and until all vapors(odors) are gone.
- Prevent deposition of dust.
- Don't expose to friction or shock
- In case of fire and/or explosion, don't breathe fumes.

**PERSONAL PROTECTIVE EQUIPMENT**

**Respiratory protection**

- Any air-purifying respirator with a high-efficiency particulate filter.
- Any powered, air-purifying respirator with a high-efficiency particulate filter.

**Eye Protection**

- Wear protective eyeglasses or chemical safety goggles.
- Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Hand Protection**

- Wear appropriate chemical resistant gloves.

**Body Protection**

- Wear appropriate chemical resistant cloths.

**Matters that require attention for reasons of sanitation**

- N.A

**Exposure standard**

- N.A

## 9. PHYSICAL & CHEMICAL PROPERTIES

| | | | |
|---|---|---|---|
| **Appearance** | Pellet form solids | **Vapor pressure** | N.A |
| **Odor** | Odorless | **Solubility(%)** | in water : insoluble |
| **Threshold Of Odor** | Odorless | **Vapor Density** | N.A |
| **pH** | N.A | **Specific Gravity** | 1.53 |
| **Melting Point** | 224℃ | **Distribution Coefficient Of Octanol/Water** | N.A |
| **Boiling Point** | N.A | | |
| **Flash Point** | N.A | **Combution Temp.** | N.A |
| **Volatility** | N.A | **Decomposition Temp.** | N.A |

| | | | |
|---|---|---|---|
| **Flammability** | N.A | **Melt Index** | N.A |
| **Span Of Flammability** | N.A | **Molecular Weight** | N.A |

## 10. STABILITY & REACTIVITY

**Chemical reactivity and stability**

- In general condition it is most safe.

**Possibility of hazardous reactions**

- In general condition it is most safe.

**Condition to be avoided**

- Mixture with acids or bases.
- Exposure of water

**Incompatibility with Other Material**

- Strong acids, oxidizing materials. At melt temperatures,

**Harzard Gases from combustion**

- Hydro Carbon including Carbon Monoxide , Formaldehyde
- This product is considered a stable material under normal and anticipated storage
- The mixture of air and dust can be explusion.

## 11. TOXICOLOGICAL INFORMATION

**Imformation about high chance of exposure rute**

INHALATION : N.A
SKIN. EYE : N.A
INGESTION : N.A

**Acute and chronic main sympton**

| | | |
|---|---|---|
| Acute toxicity | | N.A |
| Skin corrosiveness or stimulation | | N.A |
| Serious eye damage | | N.A |
| Respiratory irritability | | N.A |
| Skin irritability | | N.A |
| Carcinogenic effects : | OSHA | N.A |
| | NTP | |
| | IARC | |
| Gamete mutage nicity | | N.A |
| Reproductive toxicity | | N.A |
| Specific targetorgan toxicoid(acute exposure) | | N.A |
| Specific targetorgan toxicoid(chronic exposure) | | N.A |

## 12. ECOLOGICAL INFORMATION

| | |
|---|---|
| **Ecotoxicity** | N.A |
| **Persistence and degradability** | N.A |
| **Bioaccumulative potential** | N.A |
| **Mobility in soil** | N.A |
| **Other adverse effects** | N.A |

## 13. DISPOSAL CONSIDERATION

**Discard methods :** According to method of administration of waste.
**Disposal Considerations:** Discard it within an airtight container to prevent spilling.

## 14. TRANSPORT INFORMATION

**UN number :** There is no reliable information about classification.
**UN proper shipping name:** N.A
**Transport hazard class :** N.A
**Packing group, if applicable :** N.A
**Environmental hazards :** N.A
**Transport in bulk :** N.A
**Special precautions which a user needs to be aware of, or needs to comply with, in connection with Transport or conveyance either within or outside their premises :**
N.A

## 15. REGULATORY INFORMATION

### U.S. REGULATIONS

TSCA INVENTORY STATUS: Y
TSCA 12(b) EXPORT NOTIFICATION: Not listed.
CERCLA SECTION 103 (40CFR302.4): N
SARA SECTION 302 (40CFR355.30): N
SARA SECTION 304 (40CFR355.40): N
SARA SECTION 313 (40CFR372.65): N
**SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21)**
ACUTE: N

| | |
|---|---|
| CHRONIC: | N |
| FIRE: | N |
| REACTIVE: | N |
| SUDDEN RELEASE: | N |
| OSHA PROCESS SAFETY (29 CFR 1910.1200): | N |
| **STATE REGULATIONS:** | |
| CALIFORNIA PROPOSITION 65: | N |

## 16. OTHER INFORMATION

A. The creation date： 2010. 06. 01
B. Revision number and date：4 times / 2013. 09. 01
C. Etc:
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