## 1. PRODUCT AND COMPANY IDENTIFICATION

A. **Material**: PPS (Polyphenylene Sulfide) CAS No.: 26125-40-6, RTECS No.:  
B. **Chemical Name and Synonyms**: Polyphenylene Sulfide Resin  
C. **General Characteristics**: Pellet in natural or compounded color  
D. **Toxicological Classification**: Irritating material

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Materials</th>
<th>PPS</th>
<th>GRADE.</th>
<th>XP-2165MX</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Polyphenylene sulfide</td>
<td>CAS# 26125-40-6</td>
<td>30-40%</td>
<td></td>
</tr>
<tr>
<td>B. Glass fiber</td>
<td>CAS# 65997-17-3</td>
<td>30-40%</td>
<td></td>
</tr>
<tr>
<td>C. Mineral filler</td>
<td>CAS# -</td>
<td>25-35%</td>
<td>Max 2%</td>
</tr>
<tr>
<td>D. Other additives</td>
<td>CAS# -</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E. **Environmentally Hazardous Substances**  
   None of ingredients contain environmentally prohibited elements such as cadmium, lead and other heavy metals. The possibilities of naturally existing portion of such substances are controlled by Cheil’s internal tolerance limits to maintain high level of environmental safety.
3. HAZARD IDENTIFICATION

A. NFPA Ratings : Health : 1, Fire : 1 Reactivity : 0

B. Emergency Overview
   Physical Status : solid, granule, powder
   Main health Effects : No major effect on target organs has been reported
   Physical Danger : Airborne dust may form flammable or explosive mixture with air

C. Potential Health Effects :
   Inhalation : Acute exposure : May cause irritation
   Chronic exposure : No relevant information found
   Skin : Acute exposure : May cause irritation
   Chronic exposure : No relevant information found
   Eye : Acute exposure : May cause irritation
   Chronic exposure : No applicable information found
   Ingestion : Acute exposure : No applicable information found
   Chronic exposure : No relevant information found

D. Carcinogenicity
   Occupational Safety and Health Administration (OSHA) : None
   National Toxicology Program (NTP) : None
   International Agency for Research on Cancer (IARC) : None

4. FIRST AID

A. Inhalation
   Move person to fresh air. Assist breathing if necessary. Consult a physician.

B. Skin
   Remove contaminated clothing.
   Wash affected area with mild soap and water until chemicals are completely removed. (15-20 minutes at least)
   Get medical attention if necessary.

C. Eye
   Immediately flush eyes with plenty of water while holding eyelids open.
   Seek medical attention if irritation persists.

D. Ingestion
   Material is not expected to be absorbed from the gastrointestinal tract.
   Do not induce vomiting unless directed to do so by medical personnel.
5. FIRE FIGHTING MEASURES

A. Fire/Explosion Hazards
   Airborne dust may form flammable or explosive mixture with air.
B. Flash Point : Not applicable
C. Auto Ignition : above 400°C (750 °F)
D. Upper Flammability Limits/Lower Flammability Limits : Not applicable
E. Extinguishing Media :
   Dry chemical, carbon dioxide, water spray and foam or water fog.
F. Fire Fighting Instructions :
   Keep people away. Isolate fire area and de unnecessary entry.
   Cool surroundings with water to localize fire zone.
   Soak thoroughly with water to cool and prevent re-ignition.
G. Hazardous Combustion Products
   Toxic carbon compounds can be produced during combustion.
H. Fire Fighting Equipment
   Protective fire fighting clothing (including fire fighting helmet, coat, pants, boots, and gloves),
   positive-pressure self contained breathing apparatus (SCBA)

6. ACCIDENTAL RELEASE MEASURES

A. Protect People
   Isolate area. Keep unnecessary personnel away.
B. Protect the Environment
   Keep out of irrigation ditches, sewers, and water supplies.
   Spills should be collected to prevent contamination of waterways.
C. Cleanup
   Keep unnecessary personnel away. Sweep up.

7. HANDLING AND STORAGE

A. Handling Procedures
   Good housekeeping and controlling dusts are necessary for safe handling of products.
   Avoid friction and keep away from possible ignition sources. Earth the dust containers.
B. Storage
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Guidelines
   No guidelines are enacted by OSHA, ACGIH or NIOSH.

B. Ventilation
   Provide supplementary local ventilation to control airborne levels.

C. Eye Protection
   Use safety glasses if there is a potential for exposure to particles.
   Provide eye washer near workplace.

D. Skin Protection
   Clean body-covering clothing should be needed.

E. Protective Gloves
   Wear chemical-resist gloves.

F. Respiratory Protection
   When respiratory protection is required for certain operations, use approved air-purifying respirator.

ACGIH = American Conference of Governmental Industrial Hygienists
NIOSH = National Institute for Occupational Safety and Health
9. PHYSICAL AND CHEMICAL PROPERTIES

A. Physical State and Appearance
   Pellet in natural or compounded color

B. Odor : minimal

C. Boiling Point : Not applicable

D. Melting Point : 275~285 ℃

E. Specific Gravity or Density : 1.9 ~ 2.0

F. Molecular Weight : 30,000 ~ 50,000

G. Chemical Formula : \((C_6H_4-S)_x\)

H. Vapor Pressure : Not applicable

I. Vapor Density : Not applicable

J. Solubility : Insoluble

K. pH : Not applicable

L. Evaporation Rate : Not applicable

M. Solvent Solubility: Insoluble

10. STABILITY AND REACTIVITY

A. Chemical Reactivity : stable

B. Conditions to avoid
   Avoid heat, flame, spark and other ignition sources.
   Avoid contact with incompatible materials.

C. Incompatibility with Other Materials
   Acids, flammable materials, base, halogenic carbon compounds, oxidizing materials.

D. Hazardous Decomposition Products
   Upon heating, cyanides, ammonia, acrylonitrile, styrene, carbon oxides, nitrogen.

E. Hazardous Polymerization
   Not likely occurs.
11. TOXICOLOGICAL INFORMATION

A. Acute Oral Toxicity: LD50 has not been determined.
B. Acute Inhalation Toxicity: LC50 has not been determined.
C. Semi-acute Toxicity: No relevant information found.
D. Chronic Toxicity: No relevant information found.
E. Mutagenicity: No relevant information found.
F. Carcinogenicity: No relevant information found.
G. Other Toxicity: No relevant information found.

12. ECOLOGICAL INFORMATION

A. Mobility: This product has not been found to migrate through soils.
B. Persistence/Degradability: No relevant information found.
C. Bioaccumulation: No relevant information found.

13. DISPOSAL CONSIDERATIONS

A. Regulatory Information: None
B. Disposal Method:
   All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations.

14. TRANSPORTATION INFORMATION

A. U.S. Department of Transportation (D.O.T.) Information
   Not regulated as a hazardous material for transportation.
B. Canadian TDG Information
   Not regulated as a hazardous material for transportation.
C. International Air Transport Association (IATA) Regulation
   Not regulated as a hazardous material for transportation.
D. International Maritime Dangerous Goods (IMDG) Code
   Not regulated as a hazardous material for transportation.
15. REGULATORY INFORMATION

A. U.S Regulations

TSCA: on the list
TSCA 12(b) export notice: not on the list
CERCLA 103 (40 CFR 302.4): on the list
Acrylonitrile: 100 lbs rq
Butadiene, inhibited: 10 lbs rq
Styrene: 1000 lbs rq
SARA 302 (40 CFR 355.30): on the list
Acrylonitrile: 10000 lbs rq
SARA 304 (40 CFR 355.40): on the list
Acrylonitrile: 100 lbs rq
SARA 313 (40 CFR 372.65): not on the list
SARA Hazard Category, SARA 311/312 (40 CFR 370.21): Not to have met any hazard category
This product is not a "Hazardous Chemical" as defined by the OSHA

TSCA = Toxic Substance Control Act
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
SARA = Superfund Amendments and Reauthorization Act

16. OTHER INFORMATION

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This is the end of MSDS #PPS XP-2165MX