

MATERIAL SAFETY DATA SHEET

1 · Product and Company Identification

Product name : Phosphorus Flame Retardant (FR-35B)

Synonyms : Flame Retardant, Aromatic polyphosphate

Chemical Formula : Mixtures

Product Codes : FR-35B

Supplier Information : Chang Chun Plastics Co., Ltd.
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Emergency phone numbers : TEL +886-3-5981511 FAX +886-3-5981676

2 · Composition / Information on Ingredients

Ingredient	CAS Number	Percent (by weight)
Aromatic polyphosphate ,Triaryl phosphate ester	---	80-100wt%
Triphenyl phosphate	115-86-6	0-20wt%

3 · Hazards Identification

Emergency Overview : Transparent viscous liquid. May cause eye irritation.
Foam, CO₂, dry chemicals can be used on fires.
No significant health effect are associated with this material.

Adverse Human Health Effects :

SKIN CONTACT: Prolonged exposure may cause skin irritation.

EYE CONTACT: May cause pain and slight transient irritation.

INHALATION: No significant health hazards identified.

INGESTION: No significant signs or symptoms indicative of any adverse health hazards are expected to occur as a result of ingestion.

CHRONIC EFFECTS: NTP: Not tested

OSHA: Not regulated

IARC: Not listed

Environmental Effects : --

Physical and Chemical Hazards : --

Specific Hazards : --

4 · First-Aid Measures

Inhalation : Remove to fresh air. If breathing is difficult, give oxygen and seek medical advice.

Ingestion : Rinse mouth out with water and seek immediate medical attention.

Skin Contact : Flush affected area with plenty of water, then wash with soap and water. Seek a medical attention if irritation persists.

Eye Contact : Immediately flush with large quantities of water for at least 15 minutes. Seek a medical attention if irritation develops.

Protection of First-aiders : --

Notes to Physician : --

5、Fire-Fighting Measures

Extinguishing Media : CO₂, Dry chemical powder, Polymer foam.

Fire and Explosion Hazards :

Flash point and Method (oC):> 230 ° C (Cleveland open cup apparatus)

Flammable Limits (% by volume) : No data available

Autoignition Temperature (° C) : No data available

Special Firefighting Procedures :

Keep personnel removed from and upwind of fire. Either allow fire to burn out under controlled conditions or extinguish with foam or dry chemicals.

In case it is impossible to remove the materials from the origin of fire, abundant water spray should be used to cool fire exposed building or structures exposed fire, prevent the fire from spreading and extinguish it.

Special Equipment for the Protection of Firefighters :

Firemen should wear normal protective equipment (full bunker gear). Use self-contained breathing apparatus.

6、Accidental Release Measures

Personal Precautions : Keep people away from the spillage area. Wear adequate protective equipment, and stand at the upwind side to clean. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

Environmental Precautions : prevent flow into the sewer.

Methods for Cleaning Up :

LARGE SPILL Incinerate or place in a suitable container for disposal by a licensed contractor. (Follow all Federal, State and local regulations in your country.)

SMALL SPILL Absorb spillages with a suitable inert material(eg sand or soil). Transfer the spillage to waste containers labeled in the same way as the original containers. Clean the spillage area with water and detergent.

7、Handling and Storage

Handling : Avoid contact with eyes. Keep container closed. Use with adequate ventilation. Avoid

prolonged or repeated contact with skin. Do not eat, drink or smoke at the workplace.

Storage : Store in a cool, dry and well-ventilated area. Keep containers tightly closed when not in use.

8 · Exposure Controls / Personal Protection

Engineering Measure : Local exhaust ventilation should be used. Keep in container when not in use.

Control parameters : NA

- **Limit values :** NA
- **Biological Standards :** NA

Personal Protective Equipment : Eyeglasses,glove,helmet, mask,safety shower, eye wash fountain.

- **Respiratory Protection :** Wear suitable mask.
- **Hand Protection :** Gloves
- **Eye Protection :** Wear chemical safety glasses. Contact lenses should not be worn.
- **Skin and Body Protection :** Wear gloves and clothing as a standard handling practice.
Wear adequate protective clothing which covers any exposed parts of the body.

Specific Hygiene Measures : No specific health hazards under normal conditions.

9 · Physical and Chemical Properties

Physical State : Transparent viscous liquid	Form : liquid
Color : pale yellow	Odor : Slight odor
pH : ---	Boiling Point/Boiling Range : Decomposed without boiling
Decomposition Temperature : >300 ° C	Flash Point & Method Used : > 230 ° C (Cleveland open cup apparatus)
Auto Ignition Temperature : ---	Explosion Properties : ---
Vapor pressure : ---	Vapor density : ---
Density : 1.2- 1.26g/cm ³ (20 ° C)	Solubility : in water: <0.1g/l at 20 ° C

10 · Stability and Reactivity

Stability : Stable under recommended conditions of storage and handling.

Possible Hazardous Reactions Occurring under Specific Conditions : NA

Conditions to Avoid : NA

Materials to Avoid : Strong oxidizing agents, strong acid and strong bases.

Hazardous Decomposition Products : Thermal decomposition or combustion may produce carbon dioxide, carbon monoxide and phosphorous oxides and toxic gases / vapors.

Label Hazard Warning : 9; marine pollutant

Literature References :

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