

MATERIAL SAFETY DATA SHEET

Ref. No.: MSDS-F32	Issued : 15-Jan-07	File No.: S/P9007-32
1. General Information Product name : SUMITUBE F32 Supplier : Sumi-Pac Co., Inc. 15, Industrial 5th Rd., Shen-chu Enlarged Park, Shen-chu, Taiwan Tel: 886-3-5984165 Fax: 886-3-5984168 Emergency Tel. No. : Sumi-Pac Co., Inc. 15, Industrial 5th Rd., Shen-chu Enlarged Park, Shen-chu, Taiwan Tel: 886-3-5984165		
2. Composition / Information on ingredients Substance/Preparation : Preparation Common Name : Irradiated cross-linked, flexible, polyolefin, flame-retardant tubing Main Material : Polyolefin Content(wt%): 55wt% Environmental related substance: Substance Name : Antimony and its compounds Content(wt%): 10wt% Substance Name : Halogene flame retardant(not PBB/PBDE) Content(wt%): 20wt% Substance Name : Others Content(wt%): 15wt%		
3. Hazards Identification Most important hazards: If the product is overheated or burned, harmful vapors shall be formed. The heated product has the potential to cause thermal burns, if touched. < Note > During heating process, a slight characteristic odor of plastic may be noticed. This odor is not harmful.		
4. First aid measures Inhalation : If vapors from the burning or overheated product are inhaled, provide fresh air. If symptoms are not reduced, seek medical advice. Skin contact: If the heated product contacts skin, remove the product immediately. If there is evidence of reddening or burn, seek medical advice. Eye contact: If the heated product contacts eyes, rinse thoroughly with plenty of water for at least 15 minutes and seek medical advice. Ingestion: Seek medical advice.		
5. Fire-fighting measures Suitable extinguishing media: water spray, dry powder, CO2 foam. <Note> The product is flame-retarded(self-extinguish), but will burn, if continuously exposed to flame. Use the extinguishing media appropriate for the source of the fire. The self-contained breathing apparatus and the personal protective equipment may be needed in the event of large fires.		

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6. Accidental release measures Personal precautions: Avoid contact with the heated product. Gloves may be required to handle the product, when hot. If overheated, avoid breathing fumes which may be emitted. Environmental precaution: In common with all good industrial practice, install in well ventilated areas only. Methods for cleaning up: Sweep up and dump in a disposal container.		
7. Handling and storage Handling : No special handling advice required. Storage: Store at room temperature in unopened packs to avoid direct sunlight.		
8. Exposure controls / personal protection Technical measures: Normal manufacturing environment. Personal protection equipment: Under normal operation, not necessary. Respiratory protection: Under normal operation, not necessary. Hand protection: Gloves may be required to handle the product, when hot. Eye protection: Under normal operation, not necessary. Other protection: Under normal operation, not necessary.		
9. Physical and chemical properties Form: : Solid(tubing) Color(standard) : Black,Brown,Red,Orange,Yellow,Green,Blue,Violet,Gray and White Odor : Slight characteristic plastic odor. Melting point/range : The material has melting point, 90 °C nominal, but it will not flow over the melting temperature due to the cross-linked structure. Boiling point/range : Not applicable Flash point : About 300°C Ignition point : About 350°C Explosive properties : Not applicable Vapor pressure : Not applicable Specific gravity(20 °C) : 1.35 nominal Water solubility (20 °C) : Small molecular solubility in water		
10. Stability and preparation Stability : Stable at normal conditions. Recommended max. operating temperature is 125°C. Don't heat over 300°C to avoid harmful vapors which may be formed at high temperature. Material to avoid: None Hazardous decomposition products: None under normal conditions. If the product is overheated or burned, harmful vapors (carbon monoxide and hydrogen halides) maybe be generated.		

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11. Toxicological information Acute toxicity : Unknown Skin : Not irritating, but the heated product has potential to cause thermal burn. Eyes : If the product is overheated or burned, vapors may irritate eyes. Inhalation : Harmful vapors produced by overheating or burning may cause irritation to the upper respiratory tract. Ingestion : Not digestible. Further information : During heating process of the product, slight plastic smell may cause discomfort for susceptible persons.		
12. Ecological information Biodegradability : Unknown (no data) Aquatic toxicity : Unknown (no data) Further information : Unknown (no data)		
13. Disposal considerations: Product : Incinerate or bury in accordance with local and national regulations. Contact proper local authorities Contaminated packing : Cardboard boxes and reels can be delivered to local recycling facilities.		
14. Transport information Not classified as dangerous with regard to the transport regulation.		
15. Regulatory Information Compliance to EU regulation "Restriction of the use of Certain Hazardous Substance in Electrical and Electronic Equipment (RoHS)"		
16. Other Information The information provided in this Product Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or property assurances. The information released only to the specific material designed and maybe be valid for such a material used in combination with any other materials or in any other materials or in any process, unless specified in this text.		

Approval by

*Karen Hsu*

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SUMI-PAC CORPORATION