



MATERIAL SAFETY DATA SHEET

F/C 008/PVDFS dt. 5-1-2010 Rev 1.5

Section 1: Identification of Product and Supplier	
Product Trade Name	Sangir POLYVINYLIDENE (PVDF) Sheets
Product Use	Chemical tanks & vessels, Nuclear Industry, Fume scrubbers & FRP applications, Paper Industry, Fire retardant applications, Bleach washer lines, Chloro Alkali plant, Insecticides plants, etc.
Supplier	Sangir Plastics Pvt. Ltd. 3rd Floor, Mandhana Enclave, Near Canara Bank, Bangur Nagar, Goregaon West, Mumbai, Maharashtra, India. Postal Code: 400104. Tel.: +91 22 28717800 (30 lines) Fax.: +91 22 28741794 (fax) Email: sales@sangir.com
Emergency (24 Hours)	

Section 2: Hazards Identification	
Statement of Hazardous Nature	NON-HAZARDOUS PRODUCT NON-DANGEROUS GOODS
Poisons Schedule	Not listed.
Hazard Statements	None required.
Precautionary Statements	None required.
Other Hazards	Refer to Section 7 Handling and Storage for general precautions for use.

Section 3: Composition/Information on Ingredients													
Composition and Form	Manufactured sheets of various dimensions for purposes as described in Section 1.												
Chemical Composition	<table border="0"> <thead> <tr> <th><u>Chemical Name/s</u></th> <th><u>Proportion</u></th> </tr> </thead> <tbody> <tr> <td>Poly(vinyl chloride) polymer</td> <td>70 - 80%</td> </tr> <tr> <td>calcium carbonate filler</td> <td>3 - 16%</td> </tr> <tr> <td>Modifiers (chlorinated PE, & Acrylics)</td> <td>0 - 5%</td> </tr> <tr> <td>Stabiliser & lubricants</td> <td>1.6 – 6%</td> </tr> <tr> <td>Titanium dioxide</td> <td>1.2 – 4%</td> </tr> </tbody> </table>	<u>Chemical Name/s</u>	<u>Proportion</u>	Poly(vinyl chloride) polymer	70 - 80%	calcium carbonate filler	3 - 16%	Modifiers (chlorinated PE, & Acrylics)	0 - 5%	Stabiliser & lubricants	1.6 – 6%	Titanium dioxide	1.2 – 4%
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Section 4: First-Aid Measures	
Swallowed	IF SWALLOWED, do NOT induce vomiting. Give water to drink. Get medical attention immediately. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.
Eye	Inapplicable to the solid product except for mechanical injury. Dust/small particles from sawing or other mechanical process may affect eyes if not protected. Flush with copious quantities of water and treat symptomatically.
Skin	Inapplicable to the solid product except for mechanical injury. Flush with copious quantities of water and treat symptomatically.
Inhaled	Inapplicable to the solid product due to the physical size and dimensions of the products. If dust or vapors are inhaled, remove to fresh air. If breathing is difficult, give oxygen and get medical attention.
Generic First Aid - For Hydrogen Fluoride (HF)	<p>If thermal decomposition of this product occurs releasing hydrogen fluoride (HF) additional first aid measures are required. HF decomposition by-product is extremely corrosive and can cause severe burns which may not be immediately visible or painful. Exposure to HF may be fatal if absorbed through the skin, inhaled or swallowed. In all cases of major hydrogen fluoride exposure (including skin burns about the size of the palm of the hand) hypocalcemia may be present. Monitor calcium levels frequently and EKG for signs of calcium depletion. Patients with burns of the neck or face, or with signs of respiratory irritation, should be monitored for delayed pulmonary edema, and respiratory obstruction.</p> <p>Respiratory care should be closely supervised and may include further administration of 2.5% calcium gluconate by nebulization. Do not administer local anesthetics after skin contact as the level of pain is an indication of the effectiveness of the calcium gluconate treatment. If pain continues longer than 30 minutes, consider injecting calcium gluconate (5%) into the skin and subcutaneous tissue beneath, around and within the affected area. If ingestion occurs, do not induce vomiting. Administer 4 to 8 ounces of water followed by 2 to 4 ounces of an antacid containing calcium or magnesium.</p> <p>First Aid Supplies for Hydrogen Fluoride Use of the following materials has been shown to be useful for HF</p>

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	treatment as explained above: 2.5% calcium gluconate gel 1.0% calcium gluconate in saline ocular solution 2.5% calcium gluconate in saline inhalant antacid containing calcium or magnesium
Notes to Physician	Treat symptomatically.

Section 5: Fire-fighting Measures	
Extinguishing Media	Use water spray, carbon dioxide, foam or dry chemical.
Fire Fighting	Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	When burned, the following hazardous products of combustion can occur: Oxides of carbon and Hydrogen fluoride.
Personal Protection	Wear fully protective body suit with self-contained breathing apparatus (S.C.B.A.) to prevent contact with fumes and gases produced during combustion and appropriate gloves and footwear.

Section 6: Accidental Release Measures	
Minor Spills	Collect products and pile or secure safely. If necessary, isolate area to prevent damage to /destruction of products by vehicles etc. Broken parts may be sharp and eye protection and gloves are recommended.
Major Spills	Isolate area as necessary to prevent further damage. Collect products and pile or secure safely. Broken product and parts may have sharp edges and eye protection and gloves are recommended.
Contain spill	Sweep or scoop up and remove to suitable container. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Section 7: Handling and Storage	
Procedure for Handling	Unpack piles of sheet and ensure that free stacks are adequately stocked. Do not climb on stacks. Normal safe practices should be employed when working with the

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	material; a well ventilated area and the use of eye and protection, dust masks and gloves are recommended when sawing, grinding (with abrasive wheel) and handling. Avoid breathing processing fumes or vapors. Use only with adequate ventilation. Avoid prolonged contact with eyes, skin and clothing. Keep container tightly closed.
Storage	Store in appropriate areas (outside or in warehouse) in accordance with site safety requirements. Store in a cool, dry place. This material is not hazardous under normal storage conditions; however, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage.

Section 8: Exposure Controls / Personal Protection	
Engineering Controls	Investigate engineering techniques to reduce exposures. Provide ventilation if necessary to minimize exposure. Dilution ventilation is acceptable, but local mechanical exhaust ventilation preferred, if practical, at sources of air contamination such as open process equipment.
Personal Protection Eye	Use good industrial practice to avoid eye contact. Processing of this product releases vapors or fumes which may cause eye irritation. Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.
Hands/Feet	Safety footwear and gloves. Wash hands and contaminated skin thoroughly after handling.
Respiratory Protection	Avoid breathing processing fumes or vapors. Where airborne exposure is likely, use approved respiratory protective equipment appropriate to the material and/or its components and substances released during processing. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for a given application. For emergency and other conditions where there may be a potential for significant exposure, use an approved full-face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

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Section 9: Physical and Chemical Properties	
Appearance	Plastic sheets of thickness from 2mm to 12 mm of various sizes. Colour: natural Embossing / designs available on request.
Odour	Nil
pH:	Nil effect, insoluble
Melting point	155 -165°C
Initial boiling point and range	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Upper/lower flammability	Not applicable
Vapour pressure	Not applicable
Vapour density	Negligible
Solubility	Not applicable
Partition coefficient	Not applicable

Section 10: Chemical Stability and Reactivity	
Incompatible materials	Stable under normal conditions of storage and use. Thermal decomposition of polymer will generate hydrogen fluoride (HF). Thermal decomposition of the polymer begins to generate HF at 315 degrees C and the evolution of HF becomes rapid at 370 degrees C. Contact with strong bases, esters and ketones may cause a low energy release. Silica (glass fibers) and titanium dioxide will accelerate thermal decomposition.
Hazardous decomposition products	Hydrogen fluoride (HF), possible oxides of carbon. In case of decomposition, see Handling section (7) for additional information.

Section 11: Toxicological Information	
Data on this material and/or its components are summarized below. Ethene, 1,1-difluoro-, homopolymer The toxicity data available on this material indicates that it is practically non-toxic if swallowed (rat LD50 6,000 mg/kg) and causes minimal or no biological response upon repeated contact or prolonged implantation in tissues. Various solvent extracts of this material also caused no adverse reactions in animals.	



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Section 12: Ecological Information

Ecotoxicity	No data are available.
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Section 13: Disposal Considerations

Recover, reclaim or recycle when practical. Dispose of in an approved landfill if allowed locally. Incinerate only if the incinerator is fitted to scrub out hydrogen fluoride and other acidic combustion gases. Comply with federal, state and local regulations. Dispose of in a permitted waste management facility if incineration or landfill is not practical. Pigmented, filled and/or solvent laden product may require special disposal practices in accordance with federal, state and local requirements. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Section 14: Transport Information

Land Transport (Road/Rail)	Not classified as a dangerous goods.
Marine Transport	Not classified as a dangerous goods.
Air Transport	Not classified as a dangerous goods.

Section 15: Other Information

Further information about characteristics of the product can be inferred from the brochure of Sangir Plastics Pvt. Ltd.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.