



Induflex N.V. / Ottergemse steenweg Zuid 799 / B-9000 Gent. Belgium/+32-(0)9-221.13.94 / F:+32-(0)9-222.37.91

## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: Busbar Insulation Laminates  
PRODUCT LINE: LG: 4005, 4006, 4007, 4011, 4017  
CHEMICAL FAMILY: Laminated Materials  
HMIS RATING: H 0 F 1 R 0  
USE OF MATERIAL Flexible Laminates  
DATE ISSUED: 28 September 2011  
EMERGENCY PHONE: +32-(0)9-221.13.94 (Monday – Friday 8:30 am – 5 pm GMT +1)

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS No.</u>	<u>EINECS</u> <u>/ELINCS</u>	<u>%</u>	<u>OSHA</u> <u>PEL</u>	<u>ACGIH</u> <u>TLV</u>	<u>EU</u> <u>Classification</u>
Polyvinyl Fluoride	24981-14-4	Polymer	<70	NE	NE	Not Classified According to 67/548/EEC

The Material contains no hazardous ingredients as defined in OSHA's Hazard Communication Standard 29 CFR 1910.1200 or EU directive 1999/45/EC, and do not present a health or environmental hazard according to directive 67/548/EEC.

### 3. HAZARDS IDENTIFICATION

CASSIFICATION OF THE MATERIAL: None Regulated  
LABELING REQUIREMENTS: NE  
EFFECTS OF OVEREXPOSURE: None Known  
INHALATION: Dust formed during mechanical usage may cause irritation.  
EYE CONTACT: Dust formed during industrial operations may irritate eyes. Film has sharp edges, which may damage eyes. Follow proper PPE usage during handling.  
SKIN CONTACT: Film has sharp edges, which may damage skin. Follow proper PPE usage during handling.  
INGESTION: Not a likely route of entry.  
OTHER: Electrical Insulator can induce the generation of static electricity.  
CHRONIC: NA

#### 4. FIRST-AID MEASURES

INHALATION:	Obtain medical attention if symptoms persist.
EYE CONTACT:	Dust may irritate eyes. Sharp edges may cause cuts and irritation. Obtain medical attention if symptoms persist.
SKIN CONTACT:	Dust may irritate skin. Sharp edges may cause cuts and irritation. Obtain medical attention if symptoms persist.
INGESTION:	Not a likely route of exposure. Obtain medical attention if symptoms persist.

#### 5. FIRE-FIGHTING MEASURES

FLASH POINT:	NA	Flammable Limits:	LEL	<u>NA</u>	UEL	<u>NA</u>
AUTOIGNITION TEMPERATURE:	NE					
EXTINGUISHING MEDIA:	<u>  X  </u> Water Spray	<u>  X  </u> Foam	<u>  X  </u> CO <sub>2</sub>			
	<u>  X  </u> Dry Chemical	<u>      </u> Other –				
SPECIAL FIRE FIGHTING PROCEDURES:	Firefighters should be equipped with self-contained breathing apparatus and turnout gear.					
UNUSUAL FIRE AND EXPLOSION HAZARDS:	At sustained temperatures above 204°C Hydrogen Fluoride can be generated					

#### 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Wear suitable protective equipment. Do not breathe dust. Eliminate sources of ignition. Avoid contact with skin and eyes, which may cause lacerations.
ENVIRONMENTAL PRECAUTIONS:	Prevent from entering sewer system, surface water or soil.
CLEANING METHODS:	Sweep or shovel spills into appropriate container for disposal.

#### 7. HANDLING AND STORAGE

HANDLING:	Wear suitable protective equipment. (Refer to section 8) Wash hands with soap and water after handling.
STORAGE:	Keep material in a temperature controlled room between 20-25 °C. The areas should be well ventilated and dry. The material is combustible. The material is guaranteed under these conditions for twelve months from shipment date for quality.

#### 8. ENGINEERING CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:	If mechanical ventilation is absent, or inadequate to maintain exposure levels below those listed in Section 2, use PPE compliant to Directive 89/686/EEC with the appropriate CEN Standards. Apply a respiratory protection program in conformity with the country, state and local legislation.
<u>VENTILATION</u>	
LOCAL:	Recommended with all industrial operations
GENERAL:	Recommended with all industrial operations

## PERSONAL PROTECTION

HAND: Cut resistant gloves  
EYE: Safety glasses with side shields  
OTHER: Proper clothing to minimize exposure lacerations. Gloves and clothes with long sleeves. Safety Shower/eyewash in the area if possible exposure to tissue

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Roll of flexible material.  
ODOR: Characteristic  
PHYSICAL STATE: Solid  
BOILING POINT: NA  
MELTING POINT:  $\geq 85^{\circ}\text{C}$  ( $\geq 185^{\circ}\text{F}$ ) (melting point of Polyethylene substrate)  
FREEZING POINT: NA  
FLASH POINT: NA  
WATER SOLUBILITY: NA  
VAPOR DENSITY: NA  
VAPOR PRESSURE: NA  
SPECIFIC GRAVITY: (water = 1) NE  
PARTITION COEFFICIENT: NA  
EVAPORATION RATE: NA  
RELATIVE DENSITY: NA  
VISCOSITY: NA  
AUTO-IGNITION TEMPERATURE: NA  
DECOMPOSITION TEMPERATURE:  $204^{\circ}\text{C}$  ( $400^{\circ}\text{F}$ )  
PH: NA  
FLAMMABILITY: NA

## 10. STABILITY AND REACTIVITY

STABLE  UNSTABLE

MATERIALS TO AVOID: None Known  
HAZARDOUS POLYMERIZATION:  May Occur  Does Not Occur  
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, oxides of nitrogen, and hydrocarbons can be generated during thermal decomposition and combustion.  
Decomposition of PVF substrate may generate hydrogen fluoride.

## 11. TOXICOLOGICAL INFORMATION

NA

## 12. ECOLOGICAL INFORMATION

NA

## 13. DISPOSAL CONSIDERATION

PHYSICAL/CHEMICAL PROPERTIES AFFECTING DISPOSAL: None  
ENVIRONMENTAL TOXICITY DATA: NA  
WASTE DISPOSAL METHOD: Dispose of in accordance with applicable, federal, state, provincial, and local laws and regulations.

## 14. TRANSPORT INFORMATION

UN NUMBER: Non-Regulated  
UN PROPER SHIPPING NAME: Non-Regulated  
HAZARD CLASS (ES): Non-Regulated  
PACKING GROUP: Non-Regulated  
ENVIRONMENTAL HAZARDS: Non-Regulated

## 15. REGULATORY INFORMATION

### INTERNATIONAL REGULATIONS:

Canadian (DSL/NDSL): NE  
Australian (ACIS): NE  
Korea (KECI): NE  
Japan (ENCS, MITI): NE  
EU Directive 2011/65/EU (RoHS): Does not contain any intentionally added substances mentioned by the RoHS directive in concentrations > 0.1%.

### EUROPEAN UNION labeling and classification of this material:

Symbol: Not classified according to directive 67/548/EEC (dangerous substances) and 1999/45/EC (dangerous preparations).  
R-phrase: NA  
S-phrase: NA

TSCA  
(*Toxic Substances Control Act*): All ingredients are TSCA listed or Exempt.

CERCLA  
(*Comprehensive Emergency Response, Compensation, and Liability Act*): NA

SARA TITLE III  
(*Superfund Amendments and Reauthorization Act*): NA

311/312 HAZARD CATEGORIES: NA

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>PERCENT BY WEIGHT</u>
NA	NA	NA

## 16. OTHER INFORMATION

NA = Not Applicable  
NE = Not Established  
NC = Not Classified

FILE: Busbar insulating laminates 20110928.doc  
99185  
PREPARED BY: Jonas Heynssens  
REVIEWED BY: Joel Ludvigsen

REVISION ITEMS & DATE: 28-09-11, Section 16, 15, and 1.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULT TO BE OBTAINED FROM THE USE THEREOF.

INDUFLEX ASSUMES NO RESPONSIBILITY FOR PERSONAL INJURY OR PROPERTY DAMAGE TO VENDEES, USERS OR THIRD PARTIES CAUSED BY THE MATERIAL. SUCH VENDEES OR USERS ASSUME ALL RISKS ASSOCIATED WITH THE USE OF THE MATERIAL.