

SAFETY DATA SHEET

1) PRODUCT'S IDENTIFICATION	
Trade code	ShrinkFIT polyolefin multi-layer shrink film biaxially oriented
Supplier	Minipack-Torre S.p.A Via Provinciale, 54 - 24044 Dalmine (BG) Italy
Use	Polyolefin multi-layer shrink film, multipurpose with a wide range applications for all kind of foodstuff (FRF≤1) and industrial products. The above-mentioned film is in compliance with (EC) regulations 1935/2004, 10/2011 (EU) 2016/1416, 1907/2006 REACH (EU) 2018/675 and 94/62/WE (EU) 2018/952 related to plastic materials and articles intended to come in contact with foodstuff, 100% recyclable

2) HAZARDS IDENTIFICATION	
Classification of the product	- Not classified as a substance or mixture according to Regulation EC No. 1272/2008. - Not Classified as dangerous according to Regulation EC No. 2001/95/EG
Label elements and Chemical group	POF / POF FILM / POF POLYOLEFIN FILM / POF SHRINK FILM POLYOLEFIN
Other hazards	Under normal conditions of use and storage, the product has no negative effects on human health health hazard: considered safe under normal conditions of use fire hazard: combustible material, at temperatures above 400°C decomposition substances may form in the form of hydrocarbons, aldehydes and ketones environmental hazard: no experimental data, see sections 11 and 12

3) COMPOSITION / INFORMATION ON INGREDIENTS	
Substances	ShrinkoFIT is a solid product, is a shrink film obtained in the process of plasticization (co-extrusion) of the following polymers by means of the double blow method: - LLDPE (linear low density polyethylene) - ULDPE (ultra-low density polyethylene) - PP (polypropylene) terpolymer - anti-block and slip concentrates on a polyethylene carrier - other (mixture) The basic raw materials, constituting a total of about 90% of the film composition, are polyethylenes and propylene terpolymers.
Mixures	None of the above-mentioned ingredients / substances is listed in Annex XIV of Regulation (EC) 1907/2006 REACH. According to the Regulation (EC) No.1272/2008 Article 14 point 2 none of the substances contained in the mixture is explosive or oxidizing. Under TSE, the product does not constitute any component of a pharmaceutical product. Based on declarations received from raw material producers, we inform that the raw materials used in the production of the POF polyolefin multilayer shrink film contain ingredients synthesized from materials of animal origin (e.g. cattle and / or pig tallow). The materials used meet the requirements of Regulation 1069/2009/EC and "Guidelines for reducing the risk of transmitting animal spongiform encephalopathy agents by human and veterinary medicinal products" (EMA / 410/01 Rev.3).

4) FIRST AID MEASURES

Description of first measures	The following recommendations apply to situations where the POF polyolefin multi-layer shrink film would be degraded by the action of temperatures above the shrinkage temperature in the heat tunnel, when packing products +170 / +210°C, and the room would be poorly ventilated.
Most important symptoms and effects	Indication of any immediate medical attention - treatment / treat symptomatically
General advice	Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt seek medical advice.
Inhalation	Not applicable for material as supplied at room temperature and used as intended and in accordance with recommended specifications. If the product decomposes due to overheating or contact with fire, remove affected person to fresh air. In case of irritation of respiratory system or after prolonged exposure, seek medical attention.
Skin Contact	Not applicable for material as supplied at room temperature and used as intended and in accordance with recommended specifications. If contact with hot/melt product, wash with plenty of water and treat as thermal burn and/or seek medical care.
Eye Contact	For material dust caused by cutting the product may cause eye irritation. Wash with plenty of water and seek medical care.
Ingestion	N/A

5) FIRE FIGHTING MEASURE

Extinguishing media	Water spray, carbon dioxide, foam, dry chemical
Special hazards arising from the product	Flash point: approx. +400°C. Self-ignition does not occur Hazardous thermal decomposition (above +400°C) products include hydrocarbons, aldehydes and ketones, carbon monoxide, carbon dioxide
Advise for firefighters (equipment)	Wear self-contained breathing apparatus and protective suit
Danger of ignition and explosion	The foil on the bale under the influence of an external source of fire is quickly charred and simultaneously emits dense acrid smoke. heating is not supported by fuel. Single flames on the bale surface will go out after a few seconds. During further heating, it does not support combustion. The shrink film can accumulate electrostatic charges.
Extinguishing method	all extinguishing media are allowed. Major fires: foam or diffused water. Small fires: powder or carbon dioxide then use water to prevent reignition.
Special / specialist extinguishing method	fire service must use self-contained breathing apparatus. Steams and fumes are especially corrosive to machinery and equipment. The surfaces of directly exposed devices should be cleaned as soon as possible after the fire is extinguished.

6) ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	No danger
Environmental precautions	No danger / no hazardous substances are released
Methods and material for containment and cleaning up	Not applicable
Reference to other sections	No direct threats to people and the environment

7) STORAGE AND HANDLING

Precautions on safe handling	Solid product which presents minimal hazards to personnel when handling in accordance with operating and storage recommendations.
POF shrink film does not need any special protections under normal temperature and weather conditions, up to + 35°C. A solid product that does not pose a threat to the personnel when following the recommendations for proper handling and storage. Condition for safe storage: avoid fire risk, it is recommended to store the product in dry place at a temperature of -5°C /+35°C, protect against contamination. Store without direct sunlight.	
Specific end use(s) / working with the product	Due to the heat-shrinkage properties of the film, it is recommended to store in warehouses at a maximum temperature of -5°C +35°C, in places sheltered from the sun. In winter, store away from heat sources (radiators).
Packing temperature	Room temperature. Shrinking / packing temperature in a heat tunnel in the phase of packing products of POF shrink film: +170 / +210°C, the foil shrinks on the product in a heat tunnel, may emit vapors containing hydrocarbons and aldehydes. If necessary, use an appropriate fume extraction system (workplace ventilation / general ventilation). In the place of storage and work with the product: no smoking, no open fire. POF polyolefin multi-layer shrink film placed in cardboard boxes and protected on the pallet(s) at DEKOFILM POLSKA Sp. z o.o. shall be stored/kept in an air-conditioned warehouse, in the temperature of +20°C. Shrink film shall be stored in a dry room, rolls in cardboard boxes only vertically in temperatures not exceeding +350C, over a period of maximum 6 months. The film stack height in boxes on the pallet shall be maximum 1.5 m. Above this height – at the Customer's request. Height of foil storage on one pallet: max. two layers of 650 mm film (bottom / top layer). 700 mm wide and above - only one layer on a pallet. Otherwise: too much pressure on the rollers.
During storage of film in low temperatures	Down to -5°C attention shall be paid that min. 48 hours before using the film for packing of products, boxes with film are transported/moved to a room with room temperature for the film to warm up. POF shrink film expiration time 12 months / guarantee period commencing 12 months from the date of sale

8) EXPOSURE CONTROL / INDIVIDUAL PROTECTION

Control parameters	No direct threats to people and the environment
Exposure controls	No direct threats to people and the environment
Appropriate engineering controls	Not applicable
Use local or general ventilation during production and packaging of products in foil. When cleaning sealing elements from melted or charred material, wear protective gloves and a full-face shield. A chemical safety report is not required	

9) PHYSICAL DATA

Information on basic physical and chemical properties compliant with European Union legislation, Commission Regulation (EU) No. 2020/878:	
Appearance	Foil/film wound on paper tubes
Roll color POF shrink film	Transparent
Odour	No smell
Packaging machine operating temperature	About +170 / +210°C (depending on the packaging machine)
Softening point / boiling point	+120 +155°C
Flammability	Fire resistant
Lower and upper explosion limit	Fire resistant
Flash point	About 400°C
Auto-ignition temperature	Only applies to gases and liquids
Decomposition temperature	Not specified
pH	Inert

Kinematic viscosity	Only applies to liquids
Solubility at standard temperature	Insoluble in water
Partition coefficient n-octanol/water (log value)	Not applicable
Vapour pressure	Not applicable
Density and/or relative density	0,92 g/cm ³
Relative vapour density	Only applies to gases and liquids
Particle characteristics	Dustiness was not found / does not include nanoforms / microscopic analysis is used. Technical parameters: technical data sheet
Other information. Product not classified as a physical hazard. Product information: a) TDS, MSDS b) information label on each POF shrink film roll packaging carton c) information on the information sticker inside each tube d) individual pallet number and specification on each collective pallet	

10) STABILITY AND REACTIVITY

Reactivity	Stable at normal ambient and pressure, heat shrink above +35°C
Chemical stability	Chemically is very stable under normal environmental conditions
Possibility of hazardous reactions	Under normal conditions it is not a hazardous decomposition product
Conditions to avoid	Temperature above +35°C, places of electrostatics - the film may be electrified
Incompatible materials	No data is available on the risks associated with the hazards that result in hazardous situations
Hazardous decomposition products	Not found
Decomposition	Hazardous gases or vapors can be released, including carbon monoxide, hydrocarbon oxidation products, including, organic acids, aldehydes, alcohols.

11) TOXICITY INFORMATION

Toxicity	Negligible hazard at ambient temperature for inhalation, skin contact, eye contact and ingestion. There are no / TLV * limits set for this product by the National Health and Medical Research Council. Welding and shrinking at a temperature higher than +170 / +210°C may cause the release of vapors, which should be removed through the workplace ventilation. A toxicological hazard arises only when the foil is burned. Under normal operating conditions specified in the health and safety regulations, individual protection of the operator working with the machine or the packing machine is not provided. * / TLV- limit value - this is the average weight concentration of the working atmosphere for 8 hours of a working day and 40 hours of a working week, to which employees may be exposed without harm
Irritation	Skin, eyes, respiratory – no data available

12) ECOLOGICAL INFORMATION

The POF polyolefin multi-layer shrink film is chemically inert. Adverse effects on aquatic and terrestrial organisms are not expected. It is durable, it does not degrade under normal conditions, but solar radiation can significantly accelerate its long degradation.	
Persistence and degradability	Not readily degradable
Bioaccumulative potential	N/D
Mobility in soil	No known significant effects or critical threats. It is not biodegradable and is not toxic to aquatic organisms. It does not react with soil, air or water
Results of PBT and vPvB	Does not meet the eligibility criteria
Other adverse effects	POF shrink film is chemically inert, it does not react with common chemical compounds or in contact with soil, water and air. It is stable, does not degrade under normal conditions, but very low temperatures and solar radiation significantly accelerate its degradation

POF polyolefin multi-layer shrink film is identified by the symbol



13) WASTE REMOVAL

POF polyolefin multi-layer shrink film clean technological scraps can be used as a secondary raw material after shredding. This process may be repeated several times (pure raw material is recycled for processing). Under technological conditions, the film can be processed into selected granules / recyclate and returned to production. The product is 100% recyclable.

If waste is not used as a raw material source, it should be treated as subject to long-term decomposition, with the possibility of depositing in municipal landfills.

14) TRANSPORT INFORMATION

UN number	N/A
Customs code	39201025
Transport hazard class(es)	Not classified as dangerous in the meaning of transport
No threat to the environment. POF polyolefin multi-layer shrink film rolls in packaging placed vertically on the pallet (vertically also when placed in layers) shall be transported by clean, roofed means of transport ensuring reduction of the influence of external temperature, bad weather, dirt, chemicals or strong-smelling substances on transported film in a packaging in temperatures not exceeding -5°C +35°C. The corners of each pallet on which boxes with film are placed shall be protected with angle brackets and stretch film.	

15) REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture	1. Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) 2. EUROPEAN PARLIAMENT and COUNCIL DIRECTIVE 94/62/EC of 20 December 1994 on packaging and packaging waste and DIRECTIVE (EU) 2018/852 of THE EUROPEAN PARLIAMENT and OF THE COUNCIL of 30 May 2018 amending Directive 94/62/EC on packaging and packaging waste 3. REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT and OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) 4. COMMISSION REGULATION (EU) 2018/2005 of 17 December 2018 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards bis(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), benzyl butyl phthalate (BBP) and diisobutyl phthalate (DIBP) 5. Commission Regulation (EC) No 2023/2006 of 22 December 2006 on good manufacturing practice for materials and articles intended to come into contact with food 6. Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food 7. Commission Regulation (EU) 2016/1416 of 24 August 2016 amending and correcting Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food 8. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 ... (REACH) 9. Commission Regulation (EU) 2020/1245 of 2 September 2020 amending
	domestic and foreign regulations
Chemical safety assessment:	

16) MORE INFORMATIONS	
Information	The data is based on our current knowledge and relates to the product as it is delivered. They are intended to describe our product in terms of safety requirements and are therefore not intended to provide specific features.
Responsibility for MSDS	Cattaneo Maurizio Quality Manager Minipack-Torre S.p.A Other information: info@minipack.it Established: November 14th 2024

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