

# **DIRECTA**

## **ESSENTIALS FOR INDUSTRY**

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DIRECTA (UK) LTD.

### TECHNICAL DATA SHEET:

Product: Our reference No. 066LB/066SB

Description: Bubblewrap Large/Small

Composition: Coextruded plastic bubble film made from low density polyethylene and nylon (polyamide). CFC's are not used during manufacture.

Physical Properties: Colourless closed cell bubble film available in a range of sizes.

Potential Hazards: The outer layers of AirCap (R) barrier-sealed bubble is low density polyethylene (LDPE) which is chemically unreactive and is generally regarded as being biologically inert. LDPE materials are not considered to be a skin irritant. The inner layer (barrier) of AirCap (R) barrier-sealed bubble is nylon (polyamide) which is classed as a non-toxic and not a skin irritant.

### Flammability:

#### 1. Ignition and burning characteristics:

As the main component of AirCap (R) barrier-sealed bubble is polyethylene it may display similar properties except the burning rate will be higher due to the pockets of air in the bubbles.

When AirCap (R) barrier-sealed bubble is heated in air the outer layers of polyethylene will start to melt at around 105 degrees centigrade and decomposition will commence at about 300 degrees centigrade. Above this temperature AirCap (R) barrier-sealed bubble will pyrolyse oxidately to produce carbon monoxide and water, plus small amounts of various hydrocarbons, nitrogenous compounds and aldehydes.

The evolved gases may ignite and if they do they will provide heat of combustion, thus accelerating the pyrolysis of more AirCap (R) barrier-sealed bubble or any combustible material in the vicinity. Carbonisation may also occur and some of the carbon is released as soot. These comments can only be of a general nature since the conditions in a real fire situation can never be fully predicted. They will depend on many factors such as location, the oxygen availability and the presence of other flammable materials.

#### 2. Products of Combustion:

The pyrolysis/combustion behaviour is very similar to that of wood and other cellulosic materials though there are differences in detail. The main combustion product is flaming conditions is generally carbon dioxide, though lack of oxygen or rapid extinguishing of the fire often leads to the smoke still containing appreciable quantities of carbon monoxide, acroleins and V aldehydes.

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