Tedlar®

polyvinyl fluoride film

Materials and Processing Information Safety Considerations

General

Laboratory studies by DuPont and experience by DuPont and processors have shown that *Tedlar*® PVF film, itself, presents no health hazards.

Converting or Processing

Residual Solvent

Residual amounts of dimethyl acetamide (DMAC) ranging from 0.05 to 1.0 wt% will be present in all oriented *Tedlar*® PVF films. This chemical may be released from the film during processing, particularly at the higher processing temperatures.

DMAC is known to be capable of producing systemic injury when inhaled or absorbed through the skin in sufficient quantities over a prolonged period of time. OSHA regulations (29 CFR 1910.1000) prescribe an 8-hr time-weighted average (TWA) of 10 ppm DMAC vapor in air by volume and advise that skin contact should be avoided. In the unlikely situation in which DMAC concentration could exceed the prescribed levels, ventilation should be increased accordingly.

Thermal Stability

The film has been processed routinely at temperatures near and above 204°C (400°F), and for short times as high as 232°–249°C (450°–480°F), using ordinary industrial work area ventilation. At temperatures above 204°C (400°F) or upon prolonged heating, film discoloration and evolution of small amounts of hydrogen fluoride vapor will occur. The TWA concentration of hydrogen fluoride should not exceed 3 ppm vapor in air by volume, as prescribed by OSHA regulations (29 CFR 1910.1000). Also, please note that the presence of Lewis acids (such as BF3 complexes), in contact with *Tedlar*® PVF films, is known to catalyze film decomposition at lower than normal temperatures.

Additives

Some formulations* contain, as pigments and additives, small amounts of one or more compounds of lead, chromium, cadmium, selenium, arsenic, and antimony. Dust from secondary operations such as routing, sanding, or sawing can form dust particles of PVF that contain these particles and additives. Precautions should be taken not to inhale, swallow, or contaminate smoking materials with these dust particles. Workers should be required to wash thoroughly before eating.

Finishes Products

Either as an exterior or interior finish, *Tedlar*® will not contribute significantly to the danger associated with fire in a residential or industrial structure. The combustion of construction materials and furnishings will typically produce carbon monoxide, as well as an oxygen-deficient atmosphere. These constitute a greater potential hazard than the gases generated from *Tedlar*® finished products.

**Tedlar*® TFM05(A,B)L2, TGY07(S,B)L2, TWH10BS1, TOG10BL3, TWH10(B,S)S3, TWH15BS1, TBB15BL3, TBN15BL3, TBR15BL3, TCD15BL3, TCM15BL3, TCN15BL3, TCR15BL3, TDD15BL3, TDS15BL3, TGN15BL3, TGO15BL3, TGY15B(L,G)3, TLG15BL3, TLY15BL3, TPG15BL3, TWH15B(L,S)3, TBN20BL3, TCW20BL3, TWH20BL3, TGY20BM3, TWB20BM3, TWH20(S,B)S3, TCW20BL5, TWH40BS2, TWE15BG3, TRY15BS1, TDR15BL3, TSG15B(L,V)3, TOB15B(L,V)3, TNG15BL3.

Films Accepted by USDA

Even though some formulations of *Tedlar*® PVF film may contain trace amounts of heavy elements, most formulations are chemically acceptable as components of ceilings, walls, etc., in incidental contact with meat or poultry prepared under federal inspection. These types of *Tedlar*® include:

TBK20BM3	TSB15BL1	TUW10BG1
TCB20BL3	TSB15BL3	TUW10SG1
TCB20BL5	TSE40BG2	TWH10BG3
TCC15BL3	TSE40SG2	TWH10BS1
TCW20BL3	TST20SG4	TWH10BS3
TCW20BL5	TTR05AG2	TWH10SS3
TEB20BL3	TTR05SG2	TWH15BL1
TEB20BL5	TTR10AM3	TWH15BL3
TGB20BM3	TTR10BG3	TWH15BS1
TGH15BL3	TTR10BM3	TWH15BS3
THB15BL3	TTR10SG3	TWH20BL3
TIB20BL3	TTR15BG5	TWH20BS3
TIB20BL5	TTR20SG4	TWH20SS3
TLH05AM2	TUT10AG3	TWH40BS3
TMR10SM3	TUT10BG1	
TPC10SM3	TUT10BG3	

Other types should not be used for USDA applications, the surfaces of children's furniture and toys, or other applications where the ingredients of the film may get into the digestive system, either directly or indirectly.

Storage

Tedlar® does not readily burn or support combustion. Nevertheless, standard fire prevention and control practices should be observed, and large stocks should not be stored with flammable material.

Waste Disposal

It is preferable to dispose of *Tedlar*® as landfill; if *Tedlar*® is burned, corrosive hydrogen fluoride fumes will be liberated, which may injure vegetation and may be harmful to humans.

For more information on *Tedlar*® PVF film:

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Note: We believe this information is the best currently available on the subject. It is offered as a possible helpful suggestion in experimentation you may care to undertake along these lines. It is subject to revision as additional knowledge and experience are gained. DuPont makes no guarantee of results and assumes no obligation or liability whatsoever in connection with this information. This publication is not license to operate under, or intended to suggest infringement of, any existing patents.

CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102.

DUPONT®

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Only by DuPont

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