




FENTANYL AND CHEMOTHERAPY GLOVE DATA

Fentanyl and Chemotherapy Drugs Tested

CHEMOTHERAPY DRUG & CONCENTRATION	MM-11BK	PF-95GY	TF-95RB	PF-95TL	PF-12TL	PF-95BK	PF-95OR	PF-12WG	PF-95GW
FENTANYL CITRATE 100MCG/2ML	+	+	+	+	+	+	+	+	+
SIMULATED GASTRIC ACID	+	+	+	+	+	+	+	+	+
FENTANYL CITRATE+GASTRIC ACID SOLUTION 50/50	+	+	+	+	+	+	+	+	+
CARMUSTINE (BCNU), 3.3MG/ML	+	+	+	+	+			+	+
CISPLATIN, 1.0MG/ML	+	+	+	+	+			+	+
CYCLOPHOSPHAMIDE (CYTOXAN), 20MG/ML	+	+	+	+	+			+	+
DACARBAZINE (DTIC) 10G MG/ML	+	+	+	+	+			+	+
DOXORUBICIN HYDROCHLORIDE, 2.0 MG/ML	+	+	+	+	+			+	+
ETOPOSIDE (TOPOSAR), 20MG/ML	+	+	+	+	+			+	+
FLUOROURACIL 50MG/ML	+	+	+	+	+			+	+
PACLITAXEL (TAXOL), 6.0MG/ML	+	+	+	+	+			+	+
THIOTEPA, 10MG/ML	+	+	+	+	+			+	+

ASTM
D6978: 

Cytotoxic, narcotic, and gastric liquids were tested according to ASTM standards D6978.

ASTM D6978 was specifically designed to evaluate the effects of a defined list of cytostatic drugs on gloves. It measures the breakthrough time, which is the duration taken to reach a permeation rate of $0.01 \mu\text{g}/\text{cm}^2 \cdot \text{min}$. The maximum performance criterion for cytotoxic resistance is set at 4 hours. This test method, outlined following ASTM F739, also be applied to assess resistance against any chemical.

Every glove may have a different permeation reaction. OSHA (Occupational Safety and Health Administration), ONS (Oncology Nursing Society), and ASHP (American Society of Health-System Pharmacists) recommend “double gloving” when handling cytostatic drugs. Additionally, the FDA advises changing gloves every half hour and washing your hands before and after handling these substances.

Some manufacturers recommend gloves that comply with the standards set by EN374. This standard is 100 times less stringent than ASTM D6978, and the testing conditions do not reflect actual usage.

The same ASTM D6978 method is employed to identify the narcotic drug (Fentanyl Acetate) and the gastric acid component in vomit, in accordance with EMS / First-responders safety requirements. If you have questions about selecting the appropriate chemotherapy gloves, please contact SW Sustainability Solutions.

When selecting gloves for protection against chemotherapy drugs, it is essential to choose gloves specifically designed for the types of chemicals being used. SW chemotherapy-drug-resistant gloves have been tested in accordance with ASTM standard D6978. If you need detailed chemical resistance data, please contact our Customer Service representatives for more information.