

What gloves can you recommend against mercury and mercury derivatives?

Elemental mercury

Elemental mercury (CAS 7439-97-6) corresponds to a grey metallic liquid in standard conditions of temperature and pressure. It is used in thermometers, barometers, fluorescent lamps and other objects.



Many types of chemical protective gloves will be able to protect the user from this chemical. Butyl, Butyl/Viton, Barrier® gloves and nitrile gloves (disposable gloves and non-disposable nitrile gloves) are estimated to provide an optimal protection against mercury. Please however note that disposable gloves are only recommended against occasional splashes of this chemical. Neoprene, PVC and natural rubber latex non-disposable gloves are also estimated to have high permeation times against this chemical.

The glove choice will therefore depend on other requirements necessary for your application, such as a high level of dexterity or cut-resistance.

Mercury compounds (or derivatives)

Mercury compounds have significantly higher dermal toxicity. For example, dimethyl mercury (CAS 593-74-8) is one of the strongest known neurotoxins and was implicated in the tragic death of a laboratory researcher in 1997.

Her colleagues have made the following recommendations for handling highly toxic substances such as these (Chemical & Engineering News, May 12, 1997, p. 7):

"A highly resistant laminate glove* should be worn under a pair of long-cuffed, unsupported neoprene, nitrile, or similar heavy-duty gloves. Latex or PVC gloves are not suitable for significant, direct contact with aggressive or highly toxic chemicals. Medical surveillance measuring mercury concentrations in whole blood or urine should be considered for repeated or extended use of alkyl mercury compounds."

*The Ansell Barrier® glove correspond to a laminated glove

Recommendations made in this note are based on extrapolations from laboratory test results and information regarding the composition of chemicals and may not adequately represent specific conditions of end use. Synergistic effects of mixing chemicals have not been accounted for. For these reasons, and because Ansell has no detailed knowledge of or control over the conditions of end use, any recommendation must be advisory only and Ansell fully disclaims any liability including warranties related to any statement contained herein.

What gloves can you recommend against mercury and mercury derivatives?

Material					Butyl	LLDPE	Neoprene	Neoprene	Nitrile	Nitrile	Nitrile/Neopr ene	PVA	PVC	Viton Buty	
Thickness (mm)					0.35	0.062	0.13	N.A.	0.12	0.38	0.19	N.A.	N.A.	0.2	
Product Name / Style					ChemTek	Barrier	NeoTouch	Scorpio	TouchNTuff	Solvex	Microflex	PVA	Snorkel	ChemTek	
Type	CAS	Chemical name			%	38-514	02-100	25-101.201	08-352.354	92-500.600.605 / 93-250.300.700	37-675.676	93-260	15-554	04-414	38-612
sgl	7439-97-6	Mercury	100	>480'	>480'	>480'	120-240'	>480'	>480'	>480'	>480'		>480'	>480'	

Note : The Chart was generated using EN374 Std.