

Chemical application quick reference guide

The results shown in the table below were obtained under lab conditions ($23 \pm 2^\circ\text{C}$ and $25 \pm 5\%$ relative humidity) in the MSA test labs.

For testing purposes, V-Gard visors were secured to V-Gard frames in the “as worn” position.

Because each working environment is unique it is recommended you test your selected visor to see actual performance based on external factors and individual chemicals blend and concentrations. The results shown in this Quick Reference Guide are intended as a guide only to help in the selection of the proper V-Gard face protection products. While the table shows the performance against certain chemicals, it is not intended to be all-inclusive and such testing is not required by safety standards.

Use only V-Gard frames or V-Gard Headgear with V-Gard visors. Other product combinations are not certified and may not function as intended.

Chemical Family	Representative Chemical	Polycarbonate clear flat sheet (1-1.5 mm thick), uncoated (10115836, 10115837, 10115863, 10115840)	Polycarbonate clear flat sheet (1.5 mm thick), coated (10154949, 10154950, 10154961, 10154962)	Polycarbonate moulded, clear (2.5 mm thick), coated (10115844, 10115853, 10115845)	Propionate clear moulded (2.5 mm thick), uncoated (10115851, 10115855, 10115856)
Organic Chemicals					
Alcohol	Ethanol	***	***	***	***
Aldehyde	Butyraldehyde	NR	NR	*	*
Aliphatic Hydrocarbon	Gasoline	*(1)	NR	***	*
Aromatic Hydrocarbon	Toluene	NR	NR	*	*
Ester	Butyl acetate	NR	NR	*	*
Ether	Ethyl ether	*	*	*	*
Ketone	Methyl isobutyl ketone (MIBK)	NR	NR	NR	*
Inorganic Chemicals					
Inorganic acid	Hydrochloric acid (35% wt)	***	NR	***	***
Inorganic base	Ammonium hydroxide (28% wt)	***	***	***	***
	Sodium hydroxide (25% wt)	***	NR	***	***
Other					
Bug spray	DEET	NR	NR	*	*

⁽¹⁾ Not Recommended (NR) against this chemical when using a PC, clear flat, uncoated, 1.52 mm visor (10115840).

Three-star (*):** No cracking observed on visor under microscope after chemical spray. Only negligible haze may have been observed. The visor passes impact testing at 120 m/s after spray.

Two-star ():** No cracking observed on visor under microscope after chemical spray. Slight haze may have been observed, but an assessment of the extent of visor usability as a result is subjective. The visor passes impact testing at 120 m/s after spray.

One-star (*): No cracking observed on visor by un-aided eye after chemical spray. Visible haze may have been observed, but an assessment of the extent of visor usability as a result is subjective. The visor passes impact testing at 120 m/s after spray.

NR (not recommended): Crack(s) and/or severe warp and/or severe haze (i.e., that which renders the visor unusable) can be observed on visor after chemical spray; or the visor fails impact testing at 120 m/s after spray.

In all cases, visor should be inspected and replaced if damaged in any way that renders it unusable in a particular environment.