

# Chemical Application Quick Reference Guide

For V-Gard Accessory Face Protection Products



Chemical Family	Representative Chemical	Polycarbonate clear flat sheet (.04" - .06" thick), uncoated V-Gard Visor	Polycarbonate clear flat sheet (.06" thick), coated V-Gard Visor	Polycarbonate molded, clear (.098" thick), coated V-Gard Visor	Propionate clear molded (0.098" thick), uncoated V-Gard Visor
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	*	*

**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 @ 120 m/s after spray. Visor should be inspected and replaced if damaged in any way.

**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. In all cases, visor should be inspected and replaced if damaged in any way that renders it unusable in a particular environment. The visor passes impact testing @ 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. In all cases, visor should be inspected and replaced if damaged in any way that renders it unusable in a particular environment. The visor passes impact testing @ 120 m/s after spray.

**Three-star (\*\*\*)** – No cracking observed on visor under microscope after chemical spray. Only negligible haze may have been observed. Visor should be inspected and replaced if damaged in any way that renders it unusable in a particular environment. The visor passes impact testing @ 120 m/s after spray.

The results shown in the table were obtained under lab conditions (73.4 ± 3.6°F [23 ± 2°C] and 25 ± 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. 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. Additionally, the performance of any product can vary based on conditions of use (such as subsection of the material to different types of heat, the assessment of usability by the wearer, etc.). For these reasons, MSA recommends:

- The proper personal protective equipment should be selected for use and application by the site safety specialist, whose responsibility is that hazards, communication of instructions, precautions and limitations are conveyed and observed.
- Eye protection, such as MSA safety spectacles or goggles, as required for the application which meets the appropriate impact requirements, should be worn under any visor.
- Inspect visors frequently, and replace them immediately if worn, scratched, or damaged in any way.
- Use only V-Gard Frames with V-Gard Visors, and vice-versa. Incompatible products may not function as intended.

**For additional questions about V-Gard Visors and chemical resistance, please contact MSA Customer Service at 1-800-MSA-2222.**

<sup>1</sup> Not recommended (NR) against this chemical when using a PC, clear flat, uncoated, .06" visor.

**Note:** This bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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