

## ChemLogic Mineral Acids Detection Tape

ChemLogic Mineral Acids Detection Tapes are designed to be selective, quick responding and highly sensitive to target gases. The ChemLogic Mineral Acids Detection Tape is designed to detect Hydrogen Fluoride, Hydrogen Chloride, Hydrogen Bromide, Nitric Acid, Sulfuric Acid and Phosphoric Acid. It also responds to Boron Trifluoride (BF<sub>3</sub>).

In addition to the target gases listed above, other substances will react to the ChemLogic Mineral Acids Detection Tape.

**The following list includes the substances that will react on a ChemLogic Mineral Acid Detection Tape.**

Hydrogen Fluoride (HF)*	Nitric Acid (HNO <sub>3</sub> )*	Phosphoric Acid (H <sub>3</sub> PO <sub>4</sub> )
Hydrogen Chloride (HCl)*	Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )*	Boron Trifluoride (BF <sub>3</sub> )*
Hydrogen Bromide (HBr)*		

**\*Note – gases are available calibrations on ChemLogic CLPx, CL1, CL8 and CL96**

Gases or vapors, which react with ambient moisture to form acids, are also detectable with the ChemLogic Mineral Acids Tape.

### Compounds which hydrolyze to HBr:

Boron Tribromide (BBr <sub>3</sub> )
Phosphorus Tribromide (PBr <sub>3</sub> )

### Compounds which hydrolyze to HCl:

Arsenic Trichloride (AsHCl <sub>3</sub> )	Hexachlorodisilane (SiCl <sub>2</sub> )	Phosphorus Pentachloride (PCl <sub>5</sub> )	Tin Tetrachloride (SnCl <sub>4</sub> )
Boron Trichloride (BCl <sub>3</sub> )	Phosphorus Oxychloride (POCl <sub>3</sub> )	Phenyl Trichlorosilane (SiCl <sub>3</sub> Ph)	Trichlorosilane (SiHCl <sub>3</sub> )
Dichlorosilane (SiH <sub>2</sub> Cl <sub>2</sub> )	Phosphorus Trichloride (PCl <sub>3</sub> )	Silicon Tetrachloride (SiCl <sub>4</sub> )	Nitrosyl Chloride (NOCl)

# TECHNICAL NOTE

## Compounds which hydrolyze to HF:

Arsenic Trifluoride (AsF <sub>3</sub> )	Chlorine Trifluoride (ClF <sub>3</sub> )	Phosphorus Trifluoride (PF <sub>3</sub> )	Sulfur Tetrafluoride (SiF <sub>4</sub> )
Arsenic Pentafluoride (AsF <sub>5</sub> )	Fluosilic Acid (H <sub>2</sub> SiF <sub>6</sub> )	Phosphorus Pentafluoride (PF <sub>5</sub> )	Tetrafluorosilane (SiF <sub>4</sub> )
Carbonyl Fluoride (COF <sub>2</sub> )	Germanium Tetrafluoride (GeF <sub>4</sub> )	Silicon Tetrafluoride (SiF <sub>4</sub> )	Tungsten Hexafluoride (WF <sub>6</sub> )

## The ChemLogic Mineral Acids Detection Tape will NOT respond to:

Alcohols	Diborane	Hydrogen Selenide	Phosphine
Amines	Freon's	Isopropyl Alcohol	Propane
Ammonia	Hexane	Isocyanates	Pentane
Arsine	Hydrazine	Methyl Chloride	Silane
Carbon Tetrachloride	Hydrocarbons	Methylene Chloride	Stibene
Carbon Tetrafluoride	Hydrogen	Methane	Solvents
Carbon Monoxide	Hydrogen Cyanide	Nitrogen Oxides	Sulfur Dioxide
Chlorine (at TLV levels)	Hydrogen Peroxide	Nitrogen	Velcorin
Chloroformates	Hydrogen Sulfide	Phosgene	