



Materials of Construction

Common Name	Chemical Formula	Metals							Plastics					Elastomers				
		Brass	Carbon Steel	Stainless Steel	Aluminum	Zinc	Copper	Monel	Kel-F	Teflon	Tefzel	Kynar	PVC	Polycarbonate	Kalrez	Viton	Buna-N	Neoprene
Isobutane	C <sub>4</sub> H <sub>10</sub>	S	S	S	C	S	S	S	S	S	S	S	U	S	S	S	S	S
Isobutylene	C <sub>4</sub> H <sub>8</sub>	S	S	S	C	I	S	S	S	S	S	S	U	S	S	S	U	I
Krypton	Kr	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Medifume™ Mixture	-	C	S	S	I	I	U	I	S	S	I	I	U	U	C	S	S	S
Methane	CH <sub>4</sub>	S	S	S	C	S	S	S	S	S	S	S	I	S	S	S	S	S
Methyl Chloride	CH <sub>3</sub> Cl	S	S	S	U	U	S	S	S	S	S	I	I	S	S	U	U	U
Neon	Ne	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Nitric Oxide	NO	U	S	S	C	I	S	S	S	S	S	S	S	S	S	U	U	I
Nitrogen	N <sub>2</sub>	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Nitrogen Dioxide	NO <sub>2</sub>	U	S	S	C	I	U	S	S	S	U	U	I	C	U	U	U	U
Nitrogen Trifluoride	NF <sub>3</sub>	C	C	C	U	C	C	C	C	C	I	C	I	I	I	I	I	I
Nitrous Oxide	N <sub>2</sub> O	S	S	C	C	S	S	S	O	O	C	O	O	I	C	O	U	U
Oxygen	O <sub>2</sub>	S	C	C	C	S	S	S	O	O	O	O	O	C	O	U	O	O
Oxyfume® Mixtures	-	C	S	S	C	I	U	I	S	S	I	I	U	U	C	U	U	U
Pentane	C <sub>5</sub> H <sub>12</sub>	S	S	S	S	S	S	S	S	S	S	S	S	S	S			
Phosphine	PH <sub>3</sub>	S	C	S	C	U	I	S	S	S	S	I	I	U	S	S	S	S
Propane	C <sub>3</sub> H <sub>8</sub>	S	S	S	C	S	S	S	S	S	S	S	U	I	S	S	U	I
Propylene	C <sub>3</sub> H <sub>6</sub>	S	S	S	C	S	S	S	S	S	S	S	U	S	S	U	U	U
Silane	SiH <sub>4</sub>	S	C	S	C	I	S	S	S	S	S	S	I	I	S	S	S	I
Silicon Tetrachloride	SiCl <sub>4</sub>	C	S	S	C	I	U	S	S	S	I	S	U	I	C	S	U	U
Sulfur Dioxide	SO <sub>2</sub>	C	S	S	C	U	U	S	S	S	S	S	I	S	U	U	U	S
Sulfur Hexafluoride	SF <sub>6</sub>	S	S	S	S	I	S	S	S	S	S	S	I	C	S	S	S	S
Trichlorosilane	HSiCl <sub>3</sub>	S	S	S	U	I	I	S	S	S	I	I	U	I	C	S	U	U
Tungsten Hexafluoride	WF <sub>6</sub>	I	C	C	U	U	I	S	I	C	C	C	C	I	I	I	U	U
Xenon	Xe	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S

**Note:**  
 This chart has been prepared for use with dry (anhydrous) gases at normal operating temperature of 70 °F (21 °C). Information may vary if different operating conditions exist. Systems and equipment used in oxidizer gas service (e.g., Oxygen or Nitrous Oxide) must be cleaned for oxygen service.

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