

## Excimer Laser Pure Mixtures

Excimer laser cavities are charged with an optional mixture of a halogen donor, typically fluorine or hydrogen chloride, a rare gas buffer and an inert gas diluent, usually helium. Sometimes a small amount of hydrogen is added as a lifetime extension additive.

The use of Matheson Tri-Gas pure gas components with halogen mixtures permits the optimal charging of the laser cavity to provide stable pulsed laser output, enhanced shot to shot amplitude stability, increased gas fill time and reduced system contamination.

## Argon

Major Component	Concentration	Cylinder Size*	Contents		Valve Outlet
			US	Metric	
<b>In Helium</b> Certified or Unanalyzed	1 - 25%	300 200	269 ft <sup>3</sup> 200 ft <sup>3</sup>	7.07 m <sup>3</sup> 5.26 m <sup>3</sup>	CGA 580
<b>In Neon</b> Certified or Unanalyzed	1 - 25%	300 200	265 ft <sup>3</sup> 199 ft <sup>3</sup>	6.97 m <sup>3</sup> 5.23 m <sup>3</sup>	CGA 580

### Shipping Information:

DOT Name: . . . . . Rare Gases Mixtures  
 Hazard Class: . . . . . 2.2  
 ID No.: . . . . . UN 1979  
 DOT Label: . . . . . Nonflammable Gas

\*Other sizes available on request.

## Hydrogen

Major Component	Concentration	Cylinder Size*	Contents		Valve Outlet
			US	Metric	
<b>In Helium</b> Certified or Unanalyzed	0.02 - 0.1%	300 200	269 ft <sup>3</sup> 200 ft <sup>3</sup>	7.07 m <sup>3</sup> 5.26 m <sup>3</sup>	CGA 350
<b>In Neon</b> Certified or Unanalyzed	0.02 - 0.1%	300 200	265 ft <sup>3</sup> 199 ft <sup>3</sup>	6.97 m <sup>3</sup> 5.23 m <sup>3</sup>	CGA 580

### Shipping Information:

DOT Name: . . . . . Compressed Gases, N.O.S.  
 Hazard Class: . . . . . 2.2  
 ID No.: . . . . . UN 1956  
 DOT Label: . . . . . Nonflammable Gas

\*Other sizes available on request.

# Excimer Laser Pure Mixtures

## Hydrogen Chloride

Major Component	Concentration	Cylinder Size*	Contents		Valve Outlet
			US	Metric	
<b>In Helium</b> Certified or Unanalyzed	0.2 - 10%	300 200	269 ft <sup>3</sup> 200 ft <sup>3</sup>	7.07 m <sup>3</sup> 5.26 m <sup>3</sup>	CGA 330
<b>In Neon</b> Certified or Unanalyzed	0.2 - 10%	300 200	265 ft <sup>3</sup> 199 ft <sup>3</sup>	6.97 m <sup>3</sup> 5.23 m <sup>3</sup>	CGA 330

### Shipping Information:

(Must list two components in parentheses in association with the proper shipping name.)

DOT Name: . . . . . Compressed Gases, N.O.S.

Hazard Class: . . . . . 2.2

ID No.: . . . . . UN 1956

DOT Label: . . . . . Nonflammable Gas

\*Other sizes available on request.

## Xenon

Major Component	Concentration	Cylinder Size*	Contents		Valve Outlet
			US	Metric	
<b>In Helium</b> Certified or Unanalyzed	1 - 10%	6 6	6 ft <sup>3</sup> 6 ft <sup>3</sup>	0.16 m <sup>3</sup> 0.16 m <sup>3</sup>	CGA 580
<b>In Neon</b> Certified or Unanalyzed	1 - 10%	6 6	6 ft <sup>3</sup> 6 ft <sup>3</sup>	0.16 m <sup>3</sup> 0.16 m <sup>3</sup>	CGA 580

### Shipping Information:

(Must list two components in parentheses in association with the proper shipping name.)

DOT Name: . . . . . Rare Gases Mixtures

Hazard Class: . . . . . 2.2

ID No.: . . . . . UN 1979

DOT Label: . . . . . Nonflammable Gas

\*Other sizes available on request.