



# STARFLAME™ C Cutting Fuel

Burns hotter, quicker and cleaner than other fuel



### Smooth Cuts with No Gouge Marks or Rolled Edges

STARFLAME™ C cutting fuel is more economical, environmentally friendly and safer than acetylene and other fuel gases with:

- Quicker start to steel ignition point at less cost
- Faster cutting speeds whether beveling, making sharp turns or cutting intricate patterns
- Quick, clean piercing
- Minimal slag and weldback from a cleaner flame
- Significantly less smoke and soot
- Reduced potential for torch backfire

### STARFLAME™ C Hand Cutting or Automated Cutting

STARFLAME C cutting fuel is considered a “forgiving” fuel gas because good results can be achieved even when the heating or cutting tip is too close to the workpiece or distance opens up one to two inches during cutting. Maintaining an exact distance from the workpiece is not critical which makes STARFLAME C cutting fuel an excellent choice for hand-torch cutting.

### Vaporization Rates

#### Cubic Feet Per Hour At 60% Full Cylinder

Size	Temperature (40% full multiply by 0.8 • 20% full multiply by 0.6)				
	-5 °F	+10 °F	+20 °F	+40 °F	+60 °F
25 lb.	8	15	20	31	40
60 lb.	14	28	37	56	75
100 lb.	19	38	51	77	102
435 lb.	42	85	114	171	228
1000 gal.	197	324	512	759	1142

Specifications

Gas	STARFLAME™ C	Acetylene	Propylene	MAPP	Propane	Natural gas
Flame temperature in oxygen – °F	5800*	5720	5240	5340	5130	5040
BTU's per pound	24812*	21315	21078	21240	22093	23600
Gross heating values: BTU's per cu. ft.	2810*	1470	2371	2400	2563	1000
Primary heat: BTU's per cu. ft.	284	507	433	517	255	11
Secondary heat: BTU's per cu. ft.	2526*	963	1938	1889	2243	989
Theoretical oxygen ratio, by volume	3:1	2.5:1	4.5:1	4:1	5:1	2:1
Torch oxygen ratio, by volume	2:1	1.1:1	2.6:1	2.5:1	3.5:1	1.5:1
Cu. ft per pound of gas (or liquid)	8.83	14.50	8.89	8.85	8.62	23.6
Wt. compared to air	1.50	0.91	1.45	1.48	1.55	0.62
Liquid wt. per gallon – lbs	4.24	-	4.35	4.77	4.23	-
Boiling point – °F	-43.6	-81.0	-47.0	-54 to -10	-44.0	-250.0
Vapor pressure at 70 °F – psi	125	-	130	94	120	-
Limits of flammability in air – %	2.3 - 9.4	2.5 - 81.0	2.4 - 10.3	3.4 - 10.8	2.2 - 9.6	5.3 - 14.0
Toxicity	Low	Low	Low	Moderate	Low	Low
Reactivity	Low	Copper & silver alloys	Low	Copper & silver alloys	Low	Low
Backfire tendency	Low	High	Slight	Moderate	Low	Low
Maximum pressure – psi	Cylinder	15	Cylinder	Cylinder	Cylinder	Supply
Shock sensitivity	Stable	Unstable	Stable	Unstable	Stable	Stable

\*Effective flame and heating value characteristics based on computer image testing and comparison with other gas.



STARFLAME™ C cutting gas is available in 5 lb., 25 lb., 50 lb., 60 lb., 100 lb. and 435 lb. cylinders and bulk tanks ranging in size from 500 to 10,000 gallon capacities.

Linde Inc.  
 10 Riverview Dr. Danbury, CT 06810, USA  
 Phone 800.225.8247, [www.lindedirect.com](http://www.lindedirect.com)