

# Technical Data Sheet



## Omstar FLAME® Fuel Lubricant for Furnaces and Boilers that burn Coal, Natural Gas, or Diesel (formerly B-15)

### Description:

Short-chain and long-chain synthetic esters combined with a petroleum distillate carrier.

### Function:

Improves furnace performance; increases energy/liter fuel; reduces harmful emissions (SO<sub>2</sub>, NO<sub>x</sub>, CO, Hydrocarbons/ particulates); cleans exhaust/emissions systems; reduces fuel viscosity for lower pump power required and better cold-weather starting; reduces asphaltenes and maintenance of storage tanks.

### Benefits:

- Improves performance of all hydrocarbon-fueled furnaces (diesel, natural gas, and coal) by improving combustion efficiency
- Increases Cetane by 4-5% in diesel.
- Fully combusts (99.99% combustible), no ash or residue
- Adds lubricity to ULSD (Ultra Low Sulfur Diesel) reducing wear of pump components – can reduce injection nozzle size as a result
- Cleans fuel systems, furnaces, boilers, and exhaust stacks
- Significantly reduces SO<sub>2</sub>, NO<sub>x</sub>, CO, and hydrocarbons/ particulates
- Environmentally friendly, biodegradable, non-toxic

### Hazard Identification:

**Principal Hazards:** Combustible liquid, prolonged or repeated skin contact may cause dermatitis, see section 11 on the MSDS for complete health hazard information.

**Threshold Limits:** The PEL (OSHA) and the TLV (ACGIH) is 5 mg/m<sup>3</sup> for oil mists. The PEL (OSHA) and the TLV is 50 mg/m<sup>3</sup> and the STEL is 75 mg/m<sup>3</sup> for Naphthalene. The PEL (OSHA) and the TLV is 125 mg/m<sup>3</sup> for Trimethylbenzene.

**Primary Routes of Exposure:** Non-Hazardous

### First Aid Measures:

**ORAL:** Do not induce vomiting. If conscious, give 2 glasses of water. Get medical attention.

**EYES:** Flush with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

**SKIN:** Wash immediately with soap and water. Remove soiled clothing. Get medical attention if irritation develops. Launder contaminated clothing.

**INHALATION:** Remove exposed person to fresh air. If breathing is labored, administer oxygen and obtain immediate medical attention. If irritation persists or if toxic symptoms are observed, get medical attention.

PRODUCT

**Omstar FLAME®**  
(formerly B-15)

Safety Data Code  
SDS No. 21119Omstar-1

NFPA

HMIS (I)	
Health	1
Flammability	1
Reactivity	0
Personal PE	0

# Technical Data Sheet



## Omstar FLAME® Fuel Lubricant for Furnaces and Boilers that burn Coal, Natural Gas, or Diesel (formerly B-15)

### Properties and Compounds:

Appearance:	Yellow Oil Liquid	
Density 60° F	ASTM-D287	0.8324 g/cm <sup>3</sup>
Boiling Point	ASTM-D93	> 230° F
Calorific power	ASTM-D240	38,438.24 kj/kg
Cloud Point	ASTM-D2500	-5° C
Pour Point	ASTM-D97	-9° C
Sulfur (%P, S)	ASTM-D129	Less than 0.05
Humidity (%V)	ASTM-D95	Less than 0.01
Total Ashes (%P)	ASTM-D482	Less than 0.001 or 99.99% free of ashes

### Metals Spectrograph:

Iron	0.60 ppm
Silicon	0.22 ppm
Magnesium	0.016 ppm
Copper	0.017 ppm
Nickel	0.044 ppm
Calcium	0.21 ppm
Aluminum	Tr < 0.01
Vanadium	0.069 ppm
Other Elements	Nil
Loss on Ignition (%P)	ASTM-D482 99.99976%

### Additive Application:

**Fuel:** 30ml of Omstar DX1 FLAME® for each 40 liters of fuel (or 1oz Omstar DX1 FLAME® : 10 gallons of fuel) (1:1280, Gasoline or Diesel). Coal: 1 oz. for each 137 lbs. Natural gas: 1 oz. for each 500 cu. ft. Adjust for optimum combustion.

**First Application in fuel:** Recommend a shock treatment of 5 times the normal dose of Omstar DX1 FLAME® for each unit of fuel in above paragraph. This will improve combustion and reduce smoke more quickly, and clean emission systems/exhaust stacks more thoroughly.

### Shipping:

**Containers:** 14,000-24,000 liter collapsible bladder in 20' ISO container, 55 gallon drum, 20 liter container. Do not use low-density polyethylene containers, only high-density polyethylene (HDPE), recycling code "2"

**Transportation Information:** Shipping Classification: 65 Non-Hazardous; DOT Shipping Name: Oil, N.O.S; UN/NA Number: NA 1270.