

Technical Data Sheet



Omstar FLAME® Fuel Lubricant for Furnaces and Boilers that burn Coal, Natural Gas, or Diesel (formerly OpenFlame & 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 (SO₂, NO_x, 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 SO₂, NO_x, CO, and hydrocarbons/ particulates

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/m³ for oil mists. The PEL (OSHA) and the TLV is 50 mg/m³ and the STEL is 75 mg/m³ for Naphthalene. The PEL (OSHA) and the TLV is 125 mg/m³ 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 OpenFlame & 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 ³
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: DOT "Not Regulated"