



CLEANBOOST HFO™ (FUEL OIL ADDITIVE)

SECTION 1: PREPARATION INFORMATION

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Title: Regulatory Info Group

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SECTION 2: PRODUCT INFORMATION

PRODUCT NAME: CLEANBOOST HFO™
PRODUCT CODE: CT-CBHFO
GENERAL/GENERIC NAME: SOLVENT BLEND
PRODUCT USE: ADDITIVE FOR HEAVY FUEL OILS
WHMIS CLASSIFICATION: B3 D2B
DSL STATUS: ON DSL

SECTION 3: SHIPPING INFORMATION

SHIPPING NAME : NOT REGULATED AS DANGEROUS GOODS FOR SHIPPING
UN NUMBER : N/A
CLASS : N/A
PACKING GROUP : N/A

SECTION 4: INGREDIENT(S)

INGREDIENT:	% W/W	TLV	CAS No.
NAPHTHA PETROLEUM	60-100	100 PPM (*)	64742-94-5
NAPHTHALENE	3-7	10 PPM	91-20-3
ORGANOMETALLIC COMPOUNDS	1-5	10 MG / M3	N/A (BLEND)
1,2,4-TRIMETHYLBENZENE	0.1-1	25 PPM	95-63-6

Note: * Recommended
N/E – Not Established N/A – Not Applicable



SECTION 5: PHYSICAL DATA

INITIAL BOIL-POINT:	158 °C	OR	316 °F @ 760 MMHG
VAPOR PRESSURE:	3.75 MMHG	@ 38 °C	OR 100 °F
VAPOR DENSITY:	HEAVIER THAN AIR		
EVAPORATION RATE:	SLOWER THAN ETHER		
PHYSICAL STATE:	LIQUID		
ODOR THRESHOLD:	N/E		
FREEZING POINT:	N/E		
SPECIFIC GRAVITY:	0.89 @ 20 °C	OR	68 °F
% VOLATILE:	100 %		
APPEARANCE AND ODOR:	CLEAR YELLOW LIQUID, AROMATIC ODOR		

SECTION 6: FIRE & EXPLOSION INFORMATION

FLASH POINT:	CLOSED CUP	62.8 °C	OR	145 °F
FLAMMABLE LIMITS:	LFL: 0.9 %	UFL: 6.0 %		
AUTO IGNITION TEMPERATURE:	N/E			
EXTINGUISHING MEDIA:	FOAM, WATER FOG, DRY CHEMICAL OR CARBON DIOXIDE			

HAZARDOUS COMBUSTION PRODUCTS:
CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

FIREFIGHTING PROCEDURES:
WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE DEMAND MODE WHEN FIGHTING FIRES.

SPECIAL FIRE & EXPLOSION HAZARDS:
VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.

SECTION 7: TOXICOLOGICAL PROPERTIES

THRESHOLD LIMIT VALUE: SEE SECTION 4



TOXICOLOGICAL PROPERTIES (CONTINUED)

EFFECTS OF ACUTE OVEREXPOSURE:

- EYES: MAY CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
- SKIN: MAY CAUSE IRRITATION.
- BREATHING: EXCESSIVE INHALATION OF VAPORS MAY CAUSE NASAL AND RESPIRATORY IRRITATION.
- SWALLOWING: CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING AND DIARRHEA. ASPIRATION OF MATERIAL INTO LUNGS CAN CAUSE CHEMICAL PNEUMONITIS, WHICH CAN BE FATAL.

OTHER DATA:

SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC	LD:50 (ORL-RAT)	3000 MG / KG
	LD:50 (SKN-RBT)	> 3000 MG / KG
	LC:50 (INH-RAT)	> 3800 MG / M3 / 4H
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NAPHTHALENE:	LD:50 (ORL-RAT)	490 MG / KG
	LD:50 (SKN-RBT)	> 20 G / KG
	LC:50 (INH-RAT)	> 340 MG / M3 / 4H
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1,2,4-TRIMETHYLBENZENE:	LD:50 (ORL-RAT)	6 G / KG
	LD:50 (SKN-RBT)	NOT ESTABLISHED
	LC:50 (INH-RAT)	18 MG / M3 / 4H
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ORGANOMETALLICS:	LD:50 (ORL-RAT)	1320 MG / KG
	LD:50 (SKN-RBT)	3000 MG / KG
	LC:50 (INH-RAT)	> 150 MG / M3 / 4H
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SECTION 8: FIRST AID MEASURES

FIRST AID:

IF ON SKIN-

THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDRY CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES-

FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY; GET MEDICAL ATTENTION.

IF SWALLOWED-

DO NOT INDUCE VOMITING, KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION. ASPIRATION OF MATERIAL INTO LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS, WHICH CAN BE FATAL.



FIRST AID MEASURES (CONTINUED)

IF INHALED-

IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

SECTION 9: REACTIVITY DATA

HAZARDOUS POLYMERIZATION:
CANNOT OCCUR

STABILITY:
STABLE

INCOMPATIBILITY:
AVOID CONTACT WITH STRONG OXIDIZING AGENTS, SULFURIC ACID, NITRIC ACID

HAZARDOUS DECOMPOSITION PRODUCTS:
NOT APPLICABLE

SECTION 10: PREVENTIVE MEASURES
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STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED:

SMALL SPILL:
ABSORB ONTO SAND OR OTHER ABSORBANT MATERIAL.

LARGE SPILL:
ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE; DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELLED INTO CONTAINERS.

WASTE DISPOSAL METHOD:

SMALL SPILL:
DEPOSIT IN A LANDFILL IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

LARGE SPILL:
DESTROY BY INCINERATION IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.



PREVENTIVE MEASURES (CONTINUED)

RESPIRATORY PROTECTION:

IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION 4), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION:

PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES:

WEAR RESISTANT GLOVES, SUCH AS POLYETHYLENE.

EYE PROTECTION:

CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT:

TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

PRODUCT DISPOSAL INFORMATION:

THIS PRODUCT MAY BE CLASSIFIED AS A LIQUID INDUSTRIAL WASTE OR A REGISTERABLE SOLID WASTE AND MAY BE SUBJECT TO WASTE GENERATOR REQUIREMENTS.

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

METAL AND PLASTIC CONTAINERS MAY BE RECYCLED. PLEASE CONTACT YOUR DRUM RECONDITIONER FOR FURTHER INFORMATION.

THE INFORMATION PRESENTED HEREIN IS BELIEVED TO BE ACCURATE, BUT IS NOT WARRANTED TO BE, WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM, IN ADVANCE OF NEED, THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

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