


**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**
**TRADE NAME:** HFX-2®/RESIDUAL FUEL TREATMENT

**DATE:** 30 May 2013

**SUPERSEDES DATE:** 26 February 2013

**REVISION #:** 5.1.1

**MANUFACTURER:** ENERGY ADDITIVES, INC.

**ADDRESS:** 117 Lillie Ave.

Battle Creek, MI, USA 49015

**24/7 EMERGENCY PHONE:** INFOTRAC 800-535-5053 Call collect internationally 352-323-3500

**24/7 HEALTH EMERGENCIES:** 800-222-1222 National Poison Control Center

**SECTION 2 - HAZARDS IDENTIFICATION**

**GHS:**
**SIGNAL WORD:** DANGER

Keep away from ignition sources. Keep out of reach of children.

The product may be harmful if it is inhaled or swallowed. Avoid contact with eyes.

**POTENTIAL HEALTH EFFECTS:**
**CODE OF HAZARD STATEMENTS:**

Physical hazards

H226, Flammable liquid and Vapor

Health Hazards

H304, May be fatal if swallowed and enters airways.

H312, Harmful in contact with skin.

H315, Causes skin irritation.

H320, Causes eye irritation.

H333, May be harmful if inhaled.

H336, May cause drowsiness or dizziness.

Environmental hazards

H402, Harmful to aquatic life.

**CODE OF PRECAUTIONARY STATEMENTS:**

General

P101, Keep out of reach of children.

P103, Read label before use.

Prevention

P210, Keep away from heat/sparks/open flames/hot surfaces. NO SMOKING.

P233, Keep container tightly closed.

P234, Keep only in original container.

P242, Use only non-sparking tools.

P261, Avoid breathing breathing fume/gas/mist/Vapor spray.

P262 Do not get in eyes, on skin or on clothing.

P264, Wash thoroughly after handling.

P270, Do not eat, drink or smoke when using this product.

P280, Wear protective gloves/protective clothing/eye protection/face protection.

Response

P312, Call a POISON CENTER or doctor/physician if you feel unwell.

P331, DO NOT induce vomiting.

P340, Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P352, Wash with plenty of soap and water.

P362, Take off contaminated clothing and wash before reuse.

P381, Eliminate all ignition sources if safe to do so.

Storage

P403, Store in a well-ventilated area.

P412, Do not expose to temperatures exceeding 50 °C/122 °F.

**ROUTES OF ENTRY:** Eye contact, skin adsorption, ingestion and inhalation.

**CARCINOGENICITY:** Prop. B is a suspected carcinogen and petroleum distillates have residual naphthalene and benzene that are carcinogens.

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

CHEMICAL NAME	CAS #	EINECS #	%	REACH Reg. #
Solvent, naphtha, heavy aromatic	64742-94-5	265-198-5	≤ 50	Yes
Distillate, petroleum, hydrotreated light	64742-88-7	265-191-7	≤ 40	Yes
Nonylphenol ethoxylated	9016-45-9	ND	≤ 10	No
Prop. A (Calcium organic salt)	NA	NA	≤ 6	No
Prop. B (Hydrocarbon)	NA	NA	≤ 4	Yes
Prop. C Organic acid)	NA	NA	≤ 2	Yes

**SECTION 4 - FIRST AID MEASURES**

**INHALATION:** Move to fresh air free from risk of further exposure. If person not breathing call 9-1-1, then apply rescue breathing. Seek medical attention as soon as possible.

**EYE CONTACT:** Flush with clean, lukewarm water raising upper and lower eyelids at low pressure for 15 minutes. Remove contact lenses, if present, after the first five minutes and continue to rinse the eyes. Seek medical attention if no relief.

**SKIN CONTACT:** Rinse area with clean water for 15-20 minutes. Call poison control center or doctor for treatment advice.

**INGESTION:** Call a poison control center or doctor immediately for treatment advice. DO NOT INDUCE VOMITING. Lower the head when person is vomiting to minimize entry into throat and lungs.

**SECTION 5 - FIREFIGHTING MEASURES**

**FLASHPOINT AND METHOD:** 109°F (42.7 °C)

**FLAMMABLE LIMITS:** LEL = 1.0% UEL = 6.0%

**EXTINGUISHING METHOD:** Use dry chemicals, carbon dioxide and foam.

**FIRE OR EXPLOSION HAZARDS:** This material under complete combustion will form oxides of carbon and nitrogen.

**SPECIAL FIREFIGHTING PROCEDURES:** Keep upwind of fire. Full emergency equipment with self-contained breathing apparatus and full protective clothing to be worn by firefighters.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**SPILL OR LEAK PROCEDURES:** Wear PPE product is flammable. Keep away from sources of ignition. Avoid breathing vapour or mist. Isolate the area and prevent material from getting into waterways.

Absorb with vermiculite, sand or other inert absorbent and place the collected material in a closed container.

Use non-sparking tools.

Finish cleaning the area with small amounts of soap and water on the spill area.

**SECTION 7 - HANDLING AND STORAGE**

**STORAGE TEMPERATURE:** Keep containers tightly and keep in cool dry area. Provide a cool well-ventilated area.

**SPECIAL SENSITIVITY:** Avoid contact with skin and eyes, wear PPE in section 8.

**HANDLING AND STORAGE PRECAUTIONS:** Avoid breathing the vapour or mist. Use normal safety procedures and good personal hygiene. Wash thoroughly after use and before eating, drinking, chewing gum or using tobacco.

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

**EYE PROTECTION:** Use safety glasses or goggles, there is potential for vapour or mist exposure to cause severe injury to the eyes.

**SKIN PROTECTION:** Wear chemical resistant glove (Nitrile.) Wear long sleeve shirts, long pants and shoes and socks.

**RESPIRATORY PROTECTION:** Wear respirator if the airborne conditions result in an aerosol forming.

**OCCUPATIONAL EXPOSURE LIMITS:** Petroleum distillates OSHA PEL TWA 400 ppm.

**ENGINEERING CONTROLS:** Provide adequate ventilation when product is used. Eyewash and shower should be provided in mixing and loading areas.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL FORM:** Liquid.

**COLOUR:** Brown

**ODOUR:** Solvent odour.

**pH:** NA

**SOLUBILITY IN WATER:** Not Soluble

**FLASH POINT:** 109 °F (42.7 °C)

**VOLATILE ORGANIC CONTENT (VOC):** 90%

**SOLUBILITY (WATER):** Not soluble.

**SPECIFIC GRAVITY (water=1):** 0.8184 @ 68 °F (20 °C)

**BOILING POINT:** 318-356 °F (159-180 °C)

**SECTION 10 - REACTIVITY**

**STABILITY:** This product is stable material under normal conditions of storage and handling.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** Ignition sources.

**INCOMPATIBLES:** Avoid strong oxidizing agents, acids and bases, and selected amines.

**DECOMPOSITION PRODUCTS:** Product will burn and the products of complete combustion are oxides of carbon and nitrogen.

**SECTION 11 - TOXICOLOGICAL/ECOLOGICAL INFORMATION**

Oral LD<sub>50 (rat)</sub> = 813 mg/kg                      LC<sub>50 (rat)</sub> = 700 mg/L (4-hr test)

The significant routes of exposure are eyes, skin, ingestion and inhalation.

**SECTION 12 - DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHOD:** This material is a liquid, wear PPE as outlined in Section VIII. Dispose according to the regulations of local, state and Federal regulatory agencies.

**SECTION 13 - TRANSPORTATION INFORMATION****US DOT (ground) SHIPPING DESCRIPTION:**

UN1268, Petroleum distillates, N.O.S., (Mineral spirits), 3, III

**IATA (air) SHIPPING DESCRIPTION: CARGO AIRCRAFT ONLY**

UN1268, Petroleum distillates, N.O.S., (Mineral spirits), 3, III

Use packing instruction 310, container capacity is 58.15 gallons (220 liters)

**IMO (water) SHIPPING DESCRIPTION:**

UN1268, Petroleum distillates, N.O.S., (Mineral spirits), 3, III

Use packing instructions P001 and LP01.

**SECTION 14 - REGULATORY INFORMATION**

**OSHA STATUS:** Flammable

**UN Number:** 1268

**Hazard Class:** 3

**TSCA STATUS:** Petroleum distillates.

**CERCLA REPORTABLE QUANTITY:** None.

**CALIFORNIA PROPOSITION 65:** None.

**RCRA STATUS:** Not regulated under RCRA

**SARA 311/312 HAZARD NOTIFICATION/REPORTING**

IMMEDIATE    Y    FIRE    Y    SUDDEN RELEASE OF PRESSURE    N  
 DELAYED      Y    REACTIVE    N

**SARA TITLE III:** None.

**SECTION 302 EXTREMELY HAZARDOUS:** None.

**SECTION 311/312 HAZARD CATEGORIES:** None.

**SECTION 313 TOXIC CHEMICALS:** None.

**RIGHT TO KNOW;** Mineral spirits is listed in CA, FL, ME, MN, NJ and PA.



Class D-2A



**WHMIS:** Class B3

**SECTION 15 – OTHER INFORMATION/APPROVALS**

National Fire Protection Association (NFPA)    Hazardous Materials Identification System (HMIS)

NFPA

HMIS

0 Least

1 Health

1 Slight

1

Health

2 Flammability 2 Moderate

2

Flammability

0 Instability

3 High

0

Reactivity

4 Severe

H

PPE

**HAZARD STATEMENTS:** H226, Flammable liquid and vapour; H242, Heating may cause fire; H305, May be harmful if swallowed and enters airways; H315, Causes skin irritation; H226, May cause drowsiness or dizziness; May cause genetic defects; H361, Suspected of damaging fertility or the unborn child; and H411, Toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS:** P102, Keep out of reach of children; P103, Read label before use; P210, Keep away from heat/sparks/open flames/hot surfaces – NO SMOKING; P233, Keep container tightly closed; P240, Ground/bond container and receiving equipment; P242, Use only non-sparking tools; P264, Avoid breathing fume/gas/mist/vapour spray; P262 Do not get in eyes, on skin or on clothing; P263, Wash thoroughly after handling; P270, Do not eat, drink or smoke when using this product; P274, Avoid release to the environment; P280, Wear protective gloves/protective clothing/eye protection/face protection; P312, Call a POISON CENTER or doctor/physician if you feel unwell, P331, DO NOT INDUCE VOMITING; P340, Remove victim to fresh air and keep at rest in a position comfortable for breathing; P353, Wash with plenty of soap and water; P362, Take off contaminated clothing and wash before reuse, P373, Explosive risk in case of fire; P381, Eliminate all ignition sources if safe to do so; P410, Store in well-ventilated area and P412, Do not expose to temperatures exceeding 50 °C/122 °F.

### SECTION 16 – ABBREVIATIONS /DISCLAIMER

**REASON FOR ISSUE:** Addition to section 14, Un number and hazard class.

**APPROVAL DATE:** 1 June 2013

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**REVIEWED BY** Lloyd Lack

#### ABBREVIATIONS:

CAS #	Chemical Abstract Service Number	EINECS	European Inventory of existing Commercial Chemical Sales
°C	Celsius temperature scale	°F	Fahrenheit temperature scale
Prop.	Proprietary	PE	Personal Protective Equipment
TLV	Threshold Limit Value	TWA	Time Weighted Average
STEL	Short-term Exposure Limit	PEL	Permissible Exposure Limit
OSHA	Occupational Safety & Health	NIOSH	National Institute of Safety & Health
NFPA	National Fire Protection Agency	WHMIS	Workplace Hazardous Materials Information System
NTP	National Toxicology Program	IARC	Int. Agency for Research on Cancer
RCRA	Resource Conservation Recovery Act	TSCA	Toxic Substance Control Act
EC <sub>50</sub>	Effective Dose	LC <sub>50</sub>	Lethal Inhalation Concentration
LD <sub>50</sub>	Lethal Dose	CAS	Chemical Abstract Service Number
NDA	No Data Available	ND	Not determined
NE	None established	NA	Not Applicable
≤	Less Than or Equal To	≥	Greater Than or Equal To
CNS	Central Nervous System	CI	China
DSL	Canada	ECL	Korean Existing Chemicals List
EEC	European Economic Commission	ENCS	Japanese Existing and New Chemical List
EU	European Union	MAC	Netherlands
MAK	Germany	MITI	Japan
PICCS	Philippines	SWISS	Giftliste 1
UK	United Kingdom	USA	United States
VOC	Volatile organic content		
ACGIH	American Conference of Government Industrial Hygienists		
SARA	Superfund Amendments and Reauthorization Act		
AICS	Australian Inventory of Chemical Substances		
IARC	International Agency for Research on Cancer		
Taiwan	List of Toxic Chemical Substances regulated under Taiwan Toxic Chemical Substances Control Act of 1086		

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