

Fuel Ox, LLC RACK®

VERSION: 1.3 SOS DATE: 3/10/17

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Fuel Ox, LLC RACK®

SYNONYMS: Fuel Stabilizer, Fuel Inhibitor & Burn Rate Modifier/Catalyst

MANUFACTURER: Fuel Ox, LLC

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CHEMICAL NAME: Stabilizer, Inhibitor, Fuel Inhibitor & Burn

Rate Modifier/Catalyst

CHEMICAL FAMILY: Not Applicable CHEMICAL FORMULA: Complex Mixture

PRODUCT USE: Fuel Additive

This material should not be used for any purpose other than the intended use.

PREPARED BY: Fuel Ox, LLC.

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION Flammable liquids, Category 4

Aspiration hazard, Category 1 Acute toxicity, Oral Category 3 Skin corrosion/irritation, Category 2

Serious eye damage/eye irritation, Category 2A

Acute toxicity, Inhalation, Category 4

Carcinogenicity, Category 2

Specific target organ toxicity-repeated exposure, Category 2

Hazardous to the aquatic environment-Long term hazard, Category 1

Acute hazards to the aquatic environment, Category 2



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HAZARD SUMMARY

DANGER!

HAZARD STATEMENTS

Physical Hazards

H227 Combustible liquid.

Health Hazards

H301 Toxic if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H351 Suspected of causing cancer oral, inhalation.

H373 May cause damage to organs, liver, kidney, respiratory tract through prolonged or repeated

exposure.

Environmental Hazards

H41O very toxic to aquatic lifewith long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention

P102 Keep out of reach of children.

P210 Keepaway from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P242 Use only non-sparking tools.



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SECTION 2: HAZARDS IDENTIFICATION (cont.)

NFPA HAZARD CLASSIFICATION:

HEALTH: 3 FLAMMABILITY: 2 REACTIVITY: 0 OTHER: None

ROUTES OF ENTRY: Eyes

Skin Ingestion Inhalation

ACUTE HEALTH HAZARDS:

No data is available for Fuel Ox, LLC RACK® as it is a complex mixture. Possible symptoms of exposure may include the following:

PETROLEUM DISTILLATE:

EYES - Can cause irritation.

SKIN - Can cause irritation.

INGESTION - Can cause central nervous system depression. Aspiration into the lungs may cause lung damage.

INHALATION - Can cause central nervous system depression.

PROPRIETARY AMINE COMPOUND:

EYES - Can cause irritation, redness, blurred vision and possible permanent damage.

SKIN - Prolonged contact can cause irritation, corrosion to the skin, burns.

INGESTION - Harmful or fatal if swallowed. Can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Aspiration into the lungs may cause lung damage and possible death.

INHALATION - High concentrations can cause irritation, dizziness, nausea, fatigue, headache and unconsciousness or asphyxiation and possible death.

1-DECENE, HOMOPOLYMER, HYDROGENATED:

INGESTION -Aspiration into the lungs may cause lung damage.

PROPRIETARY ACRYLIC COPOLYMER:

EYES - Can cause irritation.

SKIN - Can cause irritation.

PROPRIETARY CATALYST:

EYES - Can cause irritation.

SKIN - Can cause irritation.

 ${\sf INGESTION-Harmful\ if\ swallowed}.$

 $INHALATION-Can \, cause \, irritation.$

SECTION 2: HAZARDS IDENTIFICATION {cont.}

PROPRIETARY PRESERVATIVE:

EYES - Can cause irritation, redness, blurred vision and possible permanent damage.

SKIN - Prolonged contact can cause irritation, corrosion to the skin, burns and absorption of harmful amounts.

INGESTION - Low toxicity if small amounts are swallowed. Aspiration into the lungs may cause lung damage.

INHALATION-Can cause irritation.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	<u>CONCENTRATIONS</u>	
Petroleum Distillate (CAS #64742-47-8)	60 – 80%	
Proprietary Amine Compound (Mixture)	15 – 30%	
1-decene, hornopolymer, hydrogenated (CAS #68037-01-4)	10 – 20%	
Proprietary Acrylic Copolymer Compound (Mixture)	<=10%	
Proprietary Catalyst (Mixture)	<=10%	
Heptane (CAS #142-82-5)	< 0.1%	
Nonane (CAS #111-84-2)	< 0.1%	
Hexane (CAS #96-14-0)	< 0.1%	
Naphthalene (CAS #91-20-3)	< 0.1%	
Hexane (CAS #110-54-3)	< 0.1%	
Proprietary Preservative (Mixture)	< 0.1%	

SECTION 4: FIRST AID MEASURES

EYES: Flush with copious amounts of water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Get medical attention.

SKIN: Wash with soap and water for at least 15 minutes. Remove contaminated clothing. Wash contaminated clothing before re use. Discard contaminated shoes, belts and other articles made of leather.

INGESTION: Do not induce vomiting, keep warm, get IMMEDIATE medical attention.

INHALATION: Remove to fresh air. If breathing is impared, get medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: If swallowed, DO NOT induce vomiting due to the risk of aspiration posed by petroleum distillates.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT: 148'F PMCC
FLAMMABILITY: Combustible Liquid
UPPER EXPLOSION LIMIT: No Data Available
LOWER EXPLOSION LIMIT: No Data Available

EXTINGUISHING MEDIA: Carbon dioxide foam, dry chemical or smart media extinguisher.

SPECIAL FIRE FIGHTING PROCEDURES: Wear contained breathing apparatus. Do not extinguish with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may explode when heated.

HAZARDOUS DECOMPOSITION PRODUCTS: Irritating and/or toxic fumes including carbon monoxide, carbon dioxide, nitrogen and sulfur compounds may be released.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Clean spill with absorbent material. Eliminate ignition sources. Use full face NIOSH approved organic respirator if odor is prevalent. Avoid runoff into storm sewers and ditches which lead to waterways. Do not store greasy materials in enclosed containers for long periods of time.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Protect from physical damage. Store in a cool, dry ventilated area away from acids, alkalis, and open flames. Keep in original container or a properly labeled and approved alternative made from compatable material.

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SECTION 7: HANDLING AND STORAGE (cont.)

OTHER PRECAUTIONS: Containers may be hazardous when empty. Do not cut, grind, weld or drill on or near empty containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME	REGULATION	TYPE OF LISTING	<u>VALUE</u>
Petroleum Distillate	ACIGH	TLV	200 ppm
	NTP /OSHA	Carcinogenicity	N.D.A.*
Proprietary Amine Compound	Manufacturer	TWA	1 ppm
	Manufacturer	STEL	2.5 ppm
	NTP / OSHA	Carcinogenicity	N.D.A.*
1decene, homopolymer, hydrogenated	ACIGH	TLV (inhalation)	5 mg/m ³
	OSHA	PEL	5 mg/m ³
	NTP /OSHA	Carcinogenicity	No
Proprietary Acrylic Copolymer Compound ACGIH		TWA	5 mg/m³
NTP /!ARC / OSHA		Carcinogenicity	N.D.A.*
Proprietary Catalyst	ACGIH	TWA	10 mg/m³
	OSHA	TWA	5 mg/m³
	NTP /!ARC / OSHA	Carcinogenicity	No
Proprietary Preservative	ACGIH	TWA	20 ppm skin
	OSHA	PEL	70 mg/m³ 20ppm skin
	NTP / OSHA	Carcinogenicity	N.D.A.*
Hexane	ACGIH	TWA	350 mg/m3
	OSHA	TWA	100 ppm
	NTP /OSHA	Carcinogenicity	N.D.A.*
Naphthalene ACGIH		TWA	50 mg/m3
OSHA		TWA	10 ppm
NTP / OSHA		Carcinogenicity	N.D.A.*
Heptane ACGIH		TWA	350 mg/m3
OSHA		TWA	85 ppm
NTP / OSHA		Carcinogenicity	N.D.A.*
Hexane –n	ne –n ACGIH OSHA NTP /OSHA		180 mg/m3 50 ppm N.D.A.*
Nonane	ACGIH	TWA	1050 mg/m3
	OSHA	TWA	200 ppm
	NTP /OSHA	Carcinogenicity	N.D.A.*

*N.D.A. No Data Available

ENGINEERING CONTROLS: Use non sparking equipment.

VENTILATION: Use local exhaust to maintain levels below TWA/TLV limits.

RESPIRATORY PROTECTION: Use NIOSH approved organic respirator if odor is prevalent.

EYE PROTECTION: Wear safety glasses or goggles.

SKIN PROTECTION: Wear as appropriate: Chemical resistant apron, protective suit, boots.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear chemical resistant (nitrile, butyl rubber, neoprene) gloves.

WORK HYGIENIC PRACTICES: Facilities storing or utilizing this material should be equipped with an eyewash station.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber to Orange Liquid

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ODOR: Organic, Solvent
ODOR THRESHOLD: No Data Available
pH: No Data Available
MELTING POINT: No Data Available
BOILING RANGE: No Data Available
FLASH POINT: 148°F PMCC

EVAPORATION RATE: < 1 (Butyl Acetate = 1)
FLAMMABILITY: Combustable Liquid
UPPER EXPLOSION LIMIT: No Data Available
LOWER EXPLOSION LIMIT: No Data Available
VAPOR PRESSURE: No Data Available
VAPOR DENSITY: No Data Available
DENSITY: 6.43 lb/gal

SOLUBILITY IN WATER: Slight
PARTITION COEFFICIENT: No Data Av

PARTITION COEFFICIENT: No Data Available DECOMPOSITION TEMPERATURE: No Data Availab

VISCOSITY:

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SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID (STABILITY): Open Flame

INCOMPATIBILITY (MATERIAL TO AVOID): Strong oxidizing agents, acids

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None

HAZARDOUS POLYMERIZATION: None

CONDITIONS TO AVOID POLYMERIZATION: None

SECTION 11: TOXICOLOGICAL INFORMATION

No data is available for Fuel Ox, LLC RACK® as it is a complex mixture. The information provided is based on profiles of raw materials of similar composition.

The petroleum distillate acute oral LD50 (rat) is >5000 mg/kg. The acute dermal LD50 (rabbit) is >2000 mg/kg.

CARCINOGENICITY: NTP-No Data Available IARC- No Data Available OSHA- No Data Available

This proprietary amine compound is a severe eye irritant. The acute oral LD50 (rat) is .512 gm/kg. The acute dermal LD50 (rat) is .251 gm/kg. The acute inhalation LCSO is greater than 1 mg/L for one hour exposure (rat).

CARCINOGENICITY: NTP- No Data Available IARC- No Data Available OSHA- No Data Available

The 1-decene, homopolymer, hydrogenated may cause skin and eye irritation. The acute oral LDSO {rat) is >5000 mg/kg.

CARCINOGENICITY: NTP-NO IARC-NO OSHA-NO

The proprietary acrylic copolymer compound is an eye irritant. Skin irritations may occur with prolonged exposure. The acute oral

LDSO (rat) is > 2000 mg/kg. The acute dermal LDSO rabbit is > 2000 mg/kg.

CARCINOGENICITY: NTP-No Data Available IARC- No Data Available OSHA- No Data Available

The proprietary catalyst is an eye irritant. Harmful if swallowed. May be harmful if inhaled or absorbed through the skin. The acute

oral LDSO (rat) is 1320 mg/kg.

CARCINOGENICITY: NTP-NO IARC- NO OSHA- NO

The proprietary preservative is a severe eye irritant. Burns may occur with repeated skin contact. The acute oral LDSO (rat) is 620

mg/kg. The acute dermal LDSO (rabbit) is 420 mg.kg.

CARCINOGENICITY: NTP-No Data Available IARC- No Data Available OSHA- No Data Available

SECTION 12: ECOLOGICAL INFORMATION

No data is available for Fuel Ox, LLC RACK® as it is a complex mixture. The information provided is based on profiles of raw materials of similar composition.

PETROLEUM DISTILLATE:

Readily biodegradable.

PROPRIETARY AMINE COMPOUND:

Ecotoxicity in water (LC50): 1.3 mg/l 96 hours (Rainbow trout).

Ecotoxicity in water (EC50): 4.1 mg/148 hours (Daphnia magna).

Not readily biodegradable.

1-DECENE, HOMOPOLYMER, HYDROGENATED:

No data is available for this material.

PROPRIETARY ACRYLIC COPOLYMER COMPOUND:

No data is available for this material.

PROPRIETARY CATALYST:

Ecotoxicity in water (EC50): 1.5-2.6 mg/l 48 hours (Daphnia magna).

Not readily biodegradable.

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SECTION 12: ECOLOGICAL INFORMATION (cont.)

PROPRIETARY PRESERVATIVE:

Ecotoxicity inwater (LC50): 2.3 mgll 96 hours (Rainbow trout). Ecotoxicity in water (EC50): 3.23 mg/l 48 hours (Daphnia magna).

Readily biodegradable.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Incinerate or dispose of waste in a chemical landfill as approved by current, local, state and federal laws and regulations.

RCRA HAZARD CLASS: No Data Available

SECTION 14: TRANSPORT INFORMATION

FOR GROUND SHIPMENT

Containers less than 1.3 gal. each in packages less than 66 lbs. may ship limited quantity per 49 CFR 173.155

DOT / IATA - NON BULK CONTAINERS (119 Gal. or less each)

PROPER SHIPPING NAME: Environmentally Hazardous Substance N.O.S.

HAZARD CLASS: 9 UN NUMBER: UN 3082 PACKING GROUP: III LABEL REQUIRED: Class 9

ERG: 171

IMDG - NON BULK CONTAINERS

PROPER SHIPPING NAME: Environmentally Hazardous Substance N.O.S.

HAZARD CLASS: 9 UN NUMBER: UN 3082 PACKING GROUP: III

LABEL REQUIRED: Class 9, Marine Pollutant

ERG: 171

<u>Transportation</u> classifications may vary by container volume and may be influenced by regional or country variations in regulctions. SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRAION): This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200)

WHMIS: This product is a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS)

TSCA (TOXIC SUBSTANCE CONTROL ACT): All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (USCA) Chemical Substance Inventory.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): This material is regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304. This material is or contains chemical(s} listed in 40 CFR Table 302.4 or nondesignated RCRA ICR substance(s). (Nondesignated !CR substances apply to materials that will not be reused). Releases in excess of reportable quantity must be reported to the National Response Center (1-800-424-8802) and the appropriate state and local emergency response organizations.

SARA TITLE 111: SECTION 311/312 HAZARD CATEGORIES: Acute Health Hazard. Chronic Health Hazard.

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in connection with any other materials or in any process unless specified in the text.