1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

SAFETY DATA SHEET

Section 1: Identification

Product Name: Fuel Ox with Combustion Catalyst
Chemical Name/Synonyms: Fuel Additive

Company: Fuel Ox, LLC
1022 State Route 173
Asbury, NJ 08802

In emergency call 911.
EMERGENCY/CHEMTREC PHONE: +1-844-838-3569
OTHER CALLS: +1-844-838-3569 (M-F, 8:30 am-4:30 pm EST)
FAX: +1-908-325-0247
For information about this SDS, use this department contact phone#: +1 908-747-4375

Section 2: Hazard(s) Identification

Health Hazards: Carcinogenicity Category 1B

GHS pictograms:

Signal Words: Danger!
Hazard Statements: H350 - May cause cancer

Precautionary Statements
Prevention:
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P308+P313 - If exposed or concerned: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/container to an approved waste disposal plant

Section 3: Composition/ Information on Ingredients

Components	CAS #	GHS US classification	% Volume	
			Min	Max
naphtha,heavy aromatic	64742-94-5	Asp. Tox. 1, H304	55.00	60.00

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

DURASYN 168 POLYALPHAOLEFINS	68037-01-4	Not classified	15.00	25.00
ferrocene	102-54-5	Acute Tox. 4 (Oral), H302	-	<1.00
3,3'-methylenebis(5-methyloxazolidine)	66204-44-2	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312	-	<1.00
Amine Compound	Confidential	Flam. Liq. 4, H227	Confidential	Confidential
distillates (petroleum), hydrotreated light paraffinic	Confidential	Carc. 1B, H350	Confidential	Confidential

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret
Full text of hazard classes and H-statements : see section 16

Section 4: First-aid measures

Description of first aid measures

First aid in general:	IF exposed or concerned: Get medical advice/attention.
Eye Contact:	IF IN EYES: Rinse eyes with water as a precaution.
Skin Contact:	IF ON SKIN: Wash skin with plenty of water.
Inhalation:	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Ingestion:	IF SWALLOWED: Call a poison center/doctor/physician if you feel unwell.

Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation:	Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact:	None under normal conditions.
Symptoms/effects after eye contact:	None under normal conditions.
Symptoms/effects after ingestion:	None under normal conditions.

Immediate medical attention and special treatment, if necessary

Treat symptomatically.

Section 5: Fire-fighting Measures

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

Suitable Extinguishing Media:	IN CASE OF FIRE: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable Extinguishing Media:	Do not use a heavy water stream.
Specific Hazards Arising from the Chemical:	No fire hazard.
Explosion Hazard:	No direct explosion hazard.
Hazardous decomposition products in case of fire:	Toxic fumes may be released.
Firefighting instructions:	Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Section 6: Accidental Release Measures

General Precautions:	Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
For non-emergency personnel:	**Protective equipment :** Wear recommended personal protective equipment. **Emergency procedures :** Only qualified personnel equipped with suitable protective equipment may intervene.
For emergency responders:	**Protective equipment :** Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". **Emergency procedures :** Evacuate unnecessary personnel. Stop leak if safe to do so.
Environmental Precautions:	Avoid release to the environment. Notify authorities if product enters sewers or public waters.
Methods and material for containment and cleaning up:	**For containment :** Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. **Methods for cleaning up** : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. **Other information** : Dispose of materials or solid residues at an authorized site.
For further information refer to section 13.	

Section 7: Handling & Storage

Precautions for safe handling

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

Additional hazards when processed	Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling	Not expected to present a significant hazard under anticipated conditions of normal use. Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly.
Hygiene measures	Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Conditions for safe storage, including any incompatibilities	
Technical Measures:	Keep in a cool, well-ventilated place away from heat.
Storage Conditions:	Store locked up.
Packaging Materials:	Store always product in container of same material as original container.

Section 8: Exposure Controls/Personal Protection

Control parameters

Component	Cas Number	ACGIH OEL TWA
DURASYN 168 POLYALPHAOLEFINS (68037-01-4)	68037-01-4	5 mg/m3 (Inhalable fraction)
ferrocene	102-54-5	10 mg/m3

(s) – Skin exposure N/E – None established

Engineering Controls:		
Appropriate engineering controls		Ensure good ventilation of the work station.
Environmental exposure controls		Avoid release to the environment.
Personal Protective Equipment (PPE):	Wear recommended personal protective equipment.	
	Skin Protection:	Protective gloves Wear suitable protective clothing.
	Eye Protection:	Safety glasses. If potential for splash or mist exists, wear goggles or face shield.

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

	Respiratory Protection:	Wear respiratory protection
	Personal protective equipment symbol(s):	

Section 9: Physical and Chemical Properties	
Information on basic physical and chemical properties	
Physical State:	Liquid
Color:	Rust
Odor:	Organic, Solvent
Odor Threshold:	No data available
pH	No data available
Flash point	161 – 162 °F
Melting point/range	No data available
Boiling point/range	No data available
Evaporation rate	No data available
Relative evaporation rate (butyl acetate=1)	No data available
Flammability (solid, gas)	No data available
Relative vapor density at 20 °C	No data available
Vapor pressure	No data available
Specific gravity/density	7.25
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

Viscosity, dynamic	No data available
Explosion limits	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Section 10: Stability and Reactivity	
Reactivity:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	No dangerous reactions known under normal conditions of use.
Conditions to avoid:	None under recommended storage and handling conditions (see section 7).
Incompatible materials:	No additional information available
Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: Toxicological Information

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Component	CAS #	Test	Result
naphtha,heavy aromatic	64742-94-5	LD50 oral rat	> 5000 mg/kg (Rat)
		LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
		LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)
ferrocene	102-54-5	LD50 oral rat	1320 mg/kg (Equivalent or similar to OECD 401, Rat, Experimental value, Oral)
		ATE US (oral)	1320 mg/kg body weight
3,3'-methylenebis(5-methyloxazolidine)	66204-44-2	LD50 oral rat	900 mg/kg (Rat, Literature study, Oral)
		LD50 dermal rat	1207 – 1620 mg/kg (OECD 402: Acute Dermal Toxicity, Rat, Literature study, Dermal)
		LC50 inhalation rat (mg/l)	2 mg/l (OECD 436: Acute inhalation toxicity-acute toxic

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

			class method, 4 h, Rat, Literature study, Inhalation (mist))
		ATE US (oral)	900 mg/kg body weight
		ATE US (dermal)	1207 mg/kg body weight
		ATE US (vapors)	2 mg/l/4h
		ATE US (dust, mist)	2 mg/l/4h
		Skin corrosion	Not classified
		ph	10 (0.150 %, 20 °C)
Amine Compound		ph	9 – 10
		Serious eye damage/irritation	Not classified
3,3'-methylenebis(5-methyloxazolidine)	66204-44-2	ph	10 (0.150 %, 20 °C)
Amine Compound		ph	9 – 10

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : May cause cancer.
Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

naphtha,heavy aromatic	64742-94-5	Viscosity, kinematic	2.235 mm2/s
Amine Compound		Viscosity, kinematic	7.5 mm2/s

Symptoms/effects after inhalation : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : None under normal conditions.

Section 12: Ecological Information

Ecology - general	The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Component	CAS #	Test	Result
naphtha,heavy aromatic	64742-94-5	EC50 - Daphnia [1]	0.95 mg/l (EC50; 48 h)

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

		LC50 - Fish [2]	2.34 mg/l (LC50; 96 h; Oncorhynchus mykiss)
		Threshold limit - Algae [2]	2.5 mg/l (EC50; 72 h)
ferrocene	102-54-5	LC50 - Fish [1]	24.5 mg/l (Equivalent or similar to OECD 203, 48 h, Leuciscus idus, Experimental value, Nominal concentration)
		EC50 - Daphnia [1]	1.5 – 4 mg/l (Equivalent or similar to OECD 202, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
		EC50 72h - Algae [1]	1.03 mg/l (Equivalent or similar to OECD 201, Desmodesmus subspicatus, Static system, Fresh water, Experimental value)
3,3'-methylenebis(5-methyloxazolidine)	66204-44-2	LC50 - Fish [1]	71 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, Nominal concentration)
		EC50 - Daphnia [1]	29 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
		ErC50 algae	5.7 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
Amine Compound		LC50 - Fish [1]	1.3 mg/l (96 h, Salmo gairdneri)
		EC50 - Daphnia [1]	4.1 mg/l (48 h, Daphnia magna)
		EC50 72h - Algae [1]	0.24 mg/l (Selenastrum capricornutum)
12.2. Persistence and degradability:	Rapidly degradable		
12.3. Bioaccumulative Potential			

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

Persistence and degradability		
Component	**CAS #**	**Persistence and degradability**
Fuel Ox with Combustion Catalyst		Rapidly degradable
naphtha,heavy aromatic	64742-94-5	Not readily biodegradable in water.
DURASYN 168 POLYALPHAOLEFINS	68037-01-4	Biodegradability in water: no data available.
ferrocene	102-54-5	Not readily biodegradable in water.
3,3'-methylenebis(5-methyloxazolidine)	66204-44-2	Readily biodegradable in water.
Amine Compound		Rapidly degradable
distillates (petroleum), hydrotreated light paraffinic		Rapidly degradable

Bioaccumulative potential			
Component	**CAS #**	**Test**	**Result**
naphtha,heavy aromatic	64742-94-5	Partition coefficient n-octanol/water (Log Pow)	2.9 – 6.1
		Bioaccumulative potential	Bioaccumable.
DURASYN 168 POLYALPHAOLEFINS	68037-01-4	Bioaccumulative potential	No bioaccumulation data available.
ferrocene	102-54-5	Partition coefficient n-octanol/water (Log Pow)	3.711 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 22 °C)
		Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
3,3'-methylenebis(5-methyloxazolidine)	66204-44-2	Partition coefficient n-octanol/water (Log Pow)	-0.11 (Experimental value)
		Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Amine Compound		Partition coefficient n-octanol/water (Log Pow)	4.16 (Estimated value)

Mobility in soil			
Component	**CAS #**	**Test**	**Result**

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

ferrocene	102-54-5	Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
		Ecology - soil	No straightforward conclusion can be drawn based upon the available numerical values.
3,3'-methylenebis(5-methyloxazolidine)	66204-44-2	Ecology - soil	No (test)data on mobility of the substance available.
Other adverse effects	No additional information available		

Section 13: Disposal Considerations

Waste disposal:	**Regional legislation (waste) :** Disposal must be done according to official regulations. **Waste treatment methods :** Dispose of contents/container in accordance with licensed collector's sorting instructions. **Sewage disposal recommendations :** Disposal must be done according to official regulations. **Product/Packaging disposal recommendations :** Disposal must be done according to official regulations. **Additional information :** Do not re-use empty containers.

Section 14: Transport Information

UN number	not regulated
DOT NA no.	not regulated
UN-No. (TDG)	not regulated
UN-No. (IMDG)	not regulated
UN-No. (IATA)	not regulated
UN proper shipping name	
Proper Shipping Name (DOT)	not regulated
Proper Shipping Name (TDG)	not regulated

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

Proper Shipping Name (IMDG)	not regulated
Proper Shipping Name (IATA)	not regulated
Transport hazard class(es)	
DOT Transport hazard class(es) (DOT)	Not DOT regulated in containers less than 119 gallons
TDG Transport hazard class(es) (TDG)	not regulated
IMDG Transport hazard class(es) (IMDG)	not regulated
IATA Transport hazard class(es) (IATA)	not regulated
Packing group	
Packing group (DOT)	not regulated
Packing group (TDG)	not regulated
Packing group (IMDG)	not regulated
Packing group (IATA)	not regulated
Environmental hazards	
Other information	No supplementary information available.
Special precautions for user	
DOT	not regulated
TDG	not regulated
IMDG	not regulated
IATA	not regulated
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	
Not applicable	

Section 15: Regulatory Information

U.S. Federal Regulations
Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Component	CAS #	Listing	Commercial status	Flag
naphtha,heavy aromatic	64742-94-5	Present		

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

DURASYN 168 POLYALPHAOLEFINS	68037-01-4	Not present	–	
ferrocene	102-54-5	Not present	--	
3,3'-methylenebis(5-methyloxazolidine)	66204-44-2	Not present	–	
Amine Compound	Confidential	Not present		
distillates (petroleum), hydrotreated light paraffinic	Confidential	Not present	–	

International regulations

CANADA

naphtha,heavy aromatic (64742-94-5)	Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Section 16: Other Information

Full text of H-phrases

H227	Combustible liquid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H350	May cause cancer

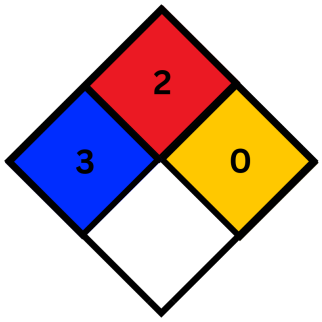
NFPA health hazard
3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard
2 - Materials that must be moderately heated or exposed

NFPA reactivity
0 - Material that in themselves are normally stable, even under fire conditions.

1022 NJ State Route 173
Asbury, NJ 08802
908-747-4375
info@fuelox.com

Hazard Rating
Health
3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given



Flammability
2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical
0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS Preparation date: November 15, 2023
The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of FUEL OX LLC knowledge; however, FUEL OX LLC makes no warranty whatsoever, expressed, implied or of MERCHANTABILITY OR FITNESS FOR THE PARTICULAR PURPOSE, regarding the accuracy of such data or the results to be obtained from the use thereof. FUEL OX LLC assumes no responsibility for injury to recipient or to third persons or for any damage to any property and recipient assumes all such risks.

Prepared by: FUEL OX LLC
1022 Rt 173
Asbury, NJ 08802
Phone number: (908) 747-4375

End of Safety Data Sheet