

Safety Data Sheet

Issue Date: 26-Jun-2014

Revision Date: 01-Jan-2020

Version 1

1. IDENTIFICATION

Product Identifier

Product Name DSOL Cetane Diesel Fuel Conditioner

Other means of identification

SDS # SFR-019

Recommended use of the chemical and restrictions on use

Recommended Use Fuel Conditioner.

Details of the supplier of the safety data sheet

Supplier Address

SFR Corporation
P.O. Box 457
Whitehall, MT 59759

Emergency Telephone Number

Company Phone Number Phone: 406-287-7836
Fax: 406-287-7946
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Brown liquid

Physical State Liquid

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Flammable Liquids	Category 3

Signal Word
Danger

Hazard Statements

Harmful if swallowed
 Harmful in contact with skin
 Harmful if inhaled
 Causes skin irritation
 Causes serious eye irritation
 May cause genetic defects
 May cause cancer
 May cause damage to organs through prolonged or repeated exposure
 May be fatal if swallowed and enters airways
 Flammable liquid and vapor



Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area

Wear eye/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a poison center or doctor/physician if you feel unwell
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do not induce vomiting
Rinse mouth
IN CASE OF FIRE: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Ethylhexyl Nitrate	27247-96-7	30-60
Heavy Aromatic Naptha	64742-95-6	10-30
Glycol Ether EB	111-76-2	10-30
Ethylbenzene	100-41-4	1-5
Isopropylbenzene	98-82-8	1-5
Xylene	1330-20-7	<2
Aromatic petroleum hydrocarbons	25551-13-7	<2

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES**First Aid Measures****General Advice**

Provide this SDS to medical personnel for treatment.

Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do not induce vomiting.

Most important symptoms and effects

Symptoms	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂). Dry chemical. Foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Use water spray to keep fire-exposed containers cool. Toxic fumes, gases or vapors may evolve on burning. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Container may rupture on heating. Toxic nitrogen oxides may evolve when burning. The alkyl nitrate contained in this product may decompose exothermically if heated above 120°C. Studies in the Koenen Tube Test indicate that the reaction is non-explosive even when the alkyl nitrate is present at levels up to 70%.

Hazardous Combustion Products Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Under combustion conditions, oxides of the following elements will be formed: nitrogen.

Sensitivity to Static Discharge Take precautionary measures against static discharge.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required. Evacuate personnel to safe areas. Remove all sources of ignition. Ventilate affected area.

Environmental Precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Pick up free liquid for Recycle and/or disposal. Residual liquid can be absorbed on inert Material. Use non-sparking tools. Check under Transportation and Labeling (DOT/CERCLA) and Other Regulatory Information Section (SARA) for hazardous substances to determine regulatory reporting.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Store away from sources of ignition. Protect from extreme temperatures.

Incompatible Materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³
Isopropylbenzene 98-82-8	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 245 mg/m ³ (vacated) S* S*	IDLH: 900 ppm TWA: 50 ppm TWA: 245 mg/m ³
Xylene 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m ³	-

Aromatic petroleum hydrocarbons 25551-13-7	TWA: 25 ppm	(vacated) TWA: 25 ppm (vacated) TWA: 125 mg/m ³	-
1,2,4 Trimethylbenzene 95-63-6	-	-	TWA: 25 ppm TWA: 125 mg/m ³

Appropriate engineering controls

Engineering Controls Showers. Eyewash stations. Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses. Use chemical safety goggles and/or full-face shield where splashing is possible.

Skin and Body Protection Nitrile gloves. Suitable protective clothing.

Respiratory Protection Use NIOSH/MSHA approved full face respirator with a combination organic vapor and high efficiency filter cartridge if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Brown liquid	Odor	Not determined
Color	Brown	Odor Threshold	Not determined
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	Not determined		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	152 °C / 305.6 °F		
Flash Point	45 °C / 113 °F		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Liquid- Not Applicable		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	Not determined		
Vapor Density	Not determined		
Specific Gravity	0.94		
Water Solubility	Insoluble		
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Auto-ignition Temperature	Not determined		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		

Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Under combustion conditions, oxides of the following elements will be formed: nitrogen.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye Contact	Causes serious eye irritation.
Skin Contact	Causes skin irritation. Harmful in contact with skin.
Inhalation	Harmful if inhaled.
Ingestion	Harmful if swallowed. May be fatal if swallowed and enters airways.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Ethylhexyl Nitrate 27247-96-7	> 2000 mg/kg (Rat)	> 4820 mg/kg (Rabbit)	> 14 mg/L (Rat) 4 h
Heavy Aromatic Naptha 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
Isopropylbenzene 98-82-8	= 1400 mg/kg (Rat)	= 12300 µL/kg (Rabbit)	> 3577 ppm (Rat) 6 h = 39000 mg/m ³ (Rat) 4 h
Xylene	= 3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit) > 1700	= 29.08 mg/L (Rat) 4 h = 5000 ppm

1330-20-7		mg/kg (Rabbit)	(Rat) 4 h
Aromatic petroleum hydrocarbons 25551-13-7	= 8970 mg/kg (Rat)	-	-
1,2,4 Trimethylbenzene 95-63-6	= 3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m ³ (Rat) 4 h

Information on physical, chemical and toxicological effects

Symptoms

Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
2-Ethylhexyl Nitrate 27247-96-7		Group 2A		X
Ethylbenzene 100-41-4	A3	Group 2B		X
Isopropylbenzene 98-82-8		Group 2B	Reasonably Anticipated	X
Xylene 1330-20-7		Group 3		

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.**Numerical measures of toxicity**

Not determined

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2-Ethylhexyl Nitrate 27247-96-7		116: 48 h Salmo gairdneri mg/L LC50 static		
Heavy Aromatic Naptha 64742-95-6		9.22: 96 h Oncorhynchus mykiss mg/L LC50		6.14: 48 h Daphnia magna mg/L EC50
Ethylbenzene 100-41-4	4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 1.7 - 7.6: 96 h Pseudokirchneriella	11.0 - 18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 4.2: 96 h	EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	1.8 - 2.4: 48 h Daphnia magna mg/L EC50

	subcapitata mg/L EC50 static 438: 96 h Pseudokirchneriella subcapitata mg/L EC50 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static	Oncorhynchus mykiss mg/L LC50 semi-static 9.6: 96 h Poecilia reticulata mg/L LC50 static 32: 96 h Lepomis macrochirus mg/L LC50 static 9.1 - 15.6: 96 h Pimephales promelas mg/L LC50 static 7.55 - 11: 96 h Pimephales promelas mg/L LC50 flow-through		
Isopropylbenzene 98-82-8	2.6: 72 h Pseudokirchneriella subcapitata mg/L EC50	6.04 - 6.61: 96 h Pimephales promelas mg/L LC50 flow-through 4.8: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 2.7: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 5.1: 96 h Poecilia reticulata mg/L LC50 semi-static		0.6: 48 h Daphnia magna mg/L EC50 7.9 - 14.1: 48 h Daphnia magna mg/L EC50 Static
Xylene 1330-20-7		13.4: 96 h Pimephales promelas mg/L LC50 flow-through 2.661 - 4.093: 96 h Oncorhynchus mykiss mg/L LC50 static 30.26 - 40.75: 96 h Poecilia reticulata mg/L LC50 static 23.53 - 29.97: 96 h Pimephales promelas mg/L LC50 static 780: 96 h Cyprinus carpio mg/L LC50 780: 96 h Cyprinus carpio mg/L LC50 semi-static 7.711 - 9.591: 96 h Lepomis macrochirus mg/L LC50 static 19: 96 h Lepomis macrochirus mg/L LC50 13.5 - 17.3: 96 h Oncorhynchus mykiss mg/L LC50 13.1 - 16.5: 96 h Lepomis macrochirus mg/L LC50 flow-through	EC50 = 0.0084 mg/L 24 h	3.82: 48 h water flea mg/L EC50 0.6: 48 h Gammarus lacustris mg/L LC50
Aromatic petroleum hydrocarbons 25551-13-7		7.72: 96 h Pimephales promelas mg/L LC50 flow-through		

1,2,4 Trimethylbenzene 95-63-6		7.19 - 8.28: 96 h Pimephales promelas mg/L LC50 flow- through		6.14: 48 h Daphnia magna mg/L EC50
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Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
2-Ethylhexyl Nitrate 27247-96-7	4.14
Glycol Ether EB 111-76-2	0.81
Ethylbenzene 100-41-4	3.118
Isopropylbenzene 98-82-8	3.55
Xylene 1330-20-7	2.77 - 3.15
1,2,4 Trimethylbenzene 95-63-6	3.63

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods**Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Ethylbenzene 100-41-4		Included in waste stream: F039		
Isopropylbenzene 98-82-8				U055
Xylene 1330-20-7		Included in waste stream: F039		U239

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Ethylbenzene 100-41-4	Toxic Ignitable
Isopropylbenzene 98-82-8	Toxic Ignitable
Xylene 1330-20-7	Toxic Ignitable

14. TRANSPORT INFORMATION

Note According to 49 CFR §173.150(f)(1), this material should be reclassified as "NA1993, Combustible Liquid, N.O.S." if it is shipped in bulk.

DOT Not regulated (If shipped in NON BULK packaging by ground transport)

IATA

UN/ID No	UN1993
Proper Shipping Name	Flammable Liquids, N.O.S (Xylene, Propylene Glycol Ether)
Hazard Class	3
Packing Group	III

IMDG

UN/ID No	UN1993
Proper Shipping Name	Flammable Liquids, N.O.S (Xylene, Propylene Glycol Ether)
Hazard Class	3
Packing Group	III
Marine Pollutant	This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION
International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2-Ethylhexyl Nitrate	Present	X		Present		Present	X	Present	X	X
Heavy Aromatic Naptha	Present	X		Present		Present	X	Present	X	X
Ethylbenzene	Present	X		Present		Present	X	Present	X	X
Isopropylbenzene	Present	X		Present		Present	X	Present	X	X
Xylene	Present	X		Present		Present	X	Present	X	X
Aromatic petroleum hydrocarbons	Present	X		Present		Present	X	Present	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylbenzene 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Isopropylbenzene 98-82-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Xylene 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ethylbenzene - 100-41-4	100-41-4	1-5	0.1
Isopropylbenzene - 98-82-8	98-82-8	1-5	1.0
Xylene - 1330-20-7	1330-20-7	<2	1.0

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ethylbenzene	1000 lb	X	X	X
Xylene	100 lb			X

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Ethylbenzene - 100-41-4	Carcinogen
Isopropylbenzene - 98-82-8	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2-Ethylhexyl Nitrate 27247-96-7	X		
Ethylbenzene 100-41-4	X	X	X
Isopropylbenzene 98-82-8	X	X	X
Xylene 1330-20-7	X	X	X
Aromatic petroleum hydrocarbons 25551-13-7	X	X	X
1,2,4 Trimethylbenzene 95-63-6	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	2	2	1	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2	1	1	Not determined

Issue Date: 26-Jun-2014

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Revision Note: New format

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 combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet