



Material Safety Data Sheet

Prepared according to OSHA Hazard Communication Standard (29 CFR 1910.1200) and ANSI MSDS Standard (Z400.1).
Complies with Canadian Workplace Hazardous Materials Information System (WHMIS) standards.

Revision Date 31-Aug-2006

Revision Number 5

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name SWEPCO 501 Premium Diesel Fuel Improver
Product Code W30090ALL

Chemical Family Petroleum hydrocarbon
Recommended Use Fuel additive

Supplier Address Southwestern Petroleum Corporation, 534 North Main St, Fort Worth, TX 76106 USA
 1-800-877-9372
 www.swepcousa.com

Emergency Telephone Number Chemtrec 1-800-424-9300
UN-No UN3082

2. HAZARDS IDENTIFICATION

CAUTION! Emergency Overview

Combustible liquid. May cause skin, eye, and respiratory tract irritation. May be harmful if swallowed.



NFPA
Health 2 **Flammability** 2 **Instability** 1

WHMIS B3 - Combustible Liquid (37.8°C/100°F-93.3°C/200°F), D2A - Other Very Toxic

Appearance Amber **Physical State** Liquid **Odor** Petroleum distillates Solvent

Principle Routes of Exposure Skin contact. Eye contact. Inhalation.

Acute Health Effects

Skin May cause skin irritation and/or dermatitis.

Eyes Contact with eyes may cause irritation.

Inhalation	Inhalation of vapors or mists in high concentration may cause irritation of respiratory system.
Ingestion	Ingestion is not considered a likely route of exposure. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed.
Carcinogenic Effects	Carcinogenic effect of the complete mixture has not been evaluated. Information on individual ingredients which may have carcinogenic effects, if any, will be found in Section 3 & 11.
Chronic Health Effects	Reports have associated repeated and prolonged occupational overexposure to petroleum based products with liver, kidney, brain and nervous system damage. There is, however, no reported human evidence that these effects occur when exposure is maintained below OSHA and ACGIH limits.
Aggravated Medical Conditions	Central nervous system. Preexisting eye disorders. Kidney disorders. Liver disorders. Skin disorders.

See Section 11 for additional toxicological information.

See Section 12 for ecological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

If any of the components of this product are defined as hazardous by OSHA Hazard Communication Standard 1910.1200 and are present at 1% or more (0.1% or more for carcinogens) or are considered hazardous components according to Canadian WHMIS standards, they will be listed in this section. If no components appear in this section, no components of the product meet or exceed the reporting requirements.

Hazardous Components

Chemical Name	CAS-No	EINECS	Weight %	IARC	OSHA	NTP Carc	WHMIS
Naphthalene	91-20-3	202-049-5	< 1.0	Group 2B	X	Reasonably Anticipated	B4, D2A

Non-Hazardous Components Listed For Information Purposes

Chemical Name	CAS-No	EINECS	Weight %	IARC	OSHA	NTP Carc	WHMIS
2-Ethylhexyl nitrate	27247-96-7	248-363-6	20 - 39.99	-	-	-	-

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Skin Contact	Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician. Remove and wash contaminated clothing before re-use.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Ingestion	Call a physician or Poison Control Center immediately. Do not induce vomiting without medical advice. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties	Flammable liquid.
Suitable Extinguishing Media	Foam, Dry chemical or CO2, Cool containers with flooding quantities of water until well after fire is out
Hazardous Combustion Products	No information available
Specific Hazards Arising from the Chemical	Keep product and empty container away from heat and sources of ignition
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	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.
Methods for Containment	Prevent further leakage or spillage if safe to do so
Methods for Clean-up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)
Other Information	Report spills as required to the appropriate authorities.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Do not eat, drink or smoke when using this product. Keep away from open flames, hot surfaces and sources of ignition.
Storage	Keep containers tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines The table below lists known exposure levels for any components of this product which are considered hazardous. Keep in mind, however, that these exposure levels are for pure concentrations of these ingredients:

Chemical Name	ACGIH TLV	OSHA PEL	Quebec OEL	Ontario TWAEV	EU OEL
Naphthalene	TWA: 10 ppm Skin STEL: 15 ppm	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 15 ppm STEL: 75 mg/m ³	STEL: 15 ppm STEL: 79 mg/m ³ TWA: 10 ppm TWA: 52 mg/m ³	STEL: 15 ppm STEL: 78 mg/m ³ TWA: 10 ppm TWA: 52 mg/m ³	

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Eye/face Protection	Safety glasses with side-shields
Skin Protection	Use protective gloves and clothing if contact with product is likely
Respiratory Protection	If personal exposure levels cannot be maintained below accepted exposure limits or if irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Amber	Odor	Petroleum distillates, Solvent
Physical State	Liquid	pH	No data available
Flash Point	>68.8°C	Autoignition Temperature	No data available
Boiling Point/Range	No data available	Melting Point/Range	No data available
Flammability Limits in Air, %		Lower 0.25	Upper 7.2
Specific Gravity (Water=1)	0.86-0.91	Solubility In Water	Negligible
Vapor Density (Air=1)	No data available	Volatiles, % Vol	81-90%

10. STABILITY AND REACTIVITY

Chemical Stability	Unstable at temperatures above 100°C (212°F).
Conditions to Avoid	Heat, flames and sparks.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	None known.
Hazardous Polymerization	Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

Toxicity of this complete mixture has not been evaluated. If information is available on any of the individual components of the mixture, it is presented in this section. If no information appears in this section, there is no toxicological information available for any of the components of the mixture.

Acute Toxicity

The table below indicates toxicological information for specific ingredients at concentrations indicated. If no table appears, no toxicological information was found.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Ethylhexyl nitrate	2000 mg/kg (Rat)	4820 mg/kg (Rabbit)	14 mg/L (Rat) 4 h
Naphthalene	490 mg/kg (Rat)	2500 mg/kg (Rat) 20 g/kg (Rabbit)	64.85412 mg/m ³ (Rat) 1 h

Chronic Toxicity

Reports have associated repeated and prolonged occupational overexposure to petroleum based products with liver, kidney, brain and nervous system damage. There is, however, no reported human evidence that these effects occur when exposure is maintained below OSHA and ACGIH limits.

Carcinogenicity

This product contains no ingredients with a concentration of 0.1% or more which are known to be carcinogenic.

Chemical Name	ACGIH	IARC	NTP Carc	OSHA
Naphthalene		Group 2B	Reasonably Anticipated	X

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity and biodegradability of this complete mixture have not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water and should not be considered readily biodegradable. If information is available on any of the individual components of the mixture, it is presented in this section. If no information appears in this section, there is no ecotoxicity or biodegradability information available for any of the components of the mixture.

Chemical Name	Freshwater Algae	Microtox	Water Flea	DOT Marine Pollutant
2-Ethylhexyl nitrate				Marine Pollutant
Naphthalene	EC50 = 0.4 mg/L 96 h	EC50 = 0.93 mg/L 30 min EC50 > 20 mg/L 18 h	EC50 = 2.16 mg/L 48 h	

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of contents/container in accordance with local regulation

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Naphthalene - 91-20-3	waste number U165	Included in waste streams: F024, F025, F034, F039, K001, K035, K060, K087, K145		waste number U165

California Waste Status

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Naphthalene	Toxic

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Environmentally hazardous substances, liquid, n.o.s.
Hazard Class 9
UN-No UN3082
Packing Group III
Marine Pollutant Description This product contains a chemical which is listed as a marine pollutant according to DOT. Environmentally hazardous substances, liquid, n.o.s.(Solvent naphtha (petroleum), heavy aliphatic,2-Ethylhexyl nitrate),9 UN3082,PG III

TDG

Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard Class 9
UN-No UN3082
Packing Group III
Description ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Solvent naphtha (petroleum), heavy aliphatic,2-Ethylhexyl nitrate), 9,UN3082,PG III

MEX

Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard Class 6.1
UN-No UN3082
Packing Group III
Description UN3082 Environmentally hazardous substance, liquid, n.o.s.(Solvent naphtha (petroleum), heavy aliphatic,2-Ethylhexyl nitrate),6.1,III

ICAO

UN-No UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.*
Hazard Class 9
Packing Group III
Description Environmentally hazardous substance, liquid, n.o.s.*(Solvent naphtha (petroleum), heavy aliphatic,2-Ethylhexyl nitrate),9,UN3082,PG III

IATA

UN-No UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.*
Hazard Class 9
Packing Group III
ERG Code 9L
Description UN3082,Environmentally hazardous substance, liquid, n.o.s.*(Solvent naphtha (petroleum), heavy aliphatic,2-Ethylhexyl nitrate),9,PG III

IMDG/IMO

Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard Class 9
UN-No UN3082
Packing Group III
EmS No. F-A, S-F
Description UN3082, Environmentally hazardous substance, liquid, n.o.s.(Solvent naphtha (petroleum), heavy aliphatic,2-Ethylhexyl nitrate),9,PG III

RID

Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard Class 9
UN-No UN3082
Packing Group III
Classification Code M6
Description UN3082 Environmentally hazardous substance, liquid, n.o.s.(Solvent naphtha (petroleum), heavy aliphatic,2-Ethylhexyl nitrate),9,III,RID
ADR/RID-Labels 9

ADR
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard Class 9
UN-No UN3082
Packing Group III
Classification Code M6
Description UN3082 Environmentally hazardous substance, liquid, n.o.s.(Solvent naphtha (petroleum), heavy aliphatic,2-Ethylhexyl nitrate),9,III,ADR
ADR/RID-Labels 9

ADN
Proper Shipping Name Matière dangereuse du point de vue de l'environnement, liquide, N.S.A.
Hazard Class 9
UN-No UN3082
Packing Group III
Classification Code M11

15. REGULATORY INFORMATION

U.S. Regulations & Inventories The table below lists any regulatory or inventory listing information found for ingredients of this product which are considered hazardous. All other components are either listed on the inventories referenced or are exempt from listing. See Section 16 for explanation of column headings:

Chemical Name	CAS-No	TSCA	TSCA 12(b)	CERCLA/SARA 313 (de minimis concentration)	SARA Hazardous Substance Required Qty
2-Ethylhexyl nitrate	27247-96-7	Present	-	-	-
Naphthalene	91-20-3	T	Section 4	1.0 %	RQ= 45.4 kg final RQ

U.S. State Right-to-Know Regulations The table below lists any regulatory or inventory listing information found for ingredients of this product which are considered hazardous. All other components are either listed on the inventories referenced or are exempt from listing. See Section 16 for explanation of column headings:

Chemical Name	Calif. Prop. 65	Massachusetts	New Jersey	Pennsylvania	Rhode Island
Naphthalene	Carcinogen	X	X	X	X

Canada Regulations & Inventories The table below lists any regulatory or inventory listing information found for ingredients of this product which are considered hazardous. All other components are either listed on the inventories referenced or are exempt from listing. See Section 16 for explanation of column headings:

Chemical Name	CAS-No	DSL	NDSL	WHMIS
2-Ethylhexyl nitrate	27247-96-7	X	-	
Naphthalene	91-20-3	X	-	B4, D2A

This product has been classified in accordance with the hazard criteria of the Candian CPR (Controlled Products Regulations) and the MSDS contains all the information required by the CPR.

International Regulations & Inventories The table below lists any regulatory or inventory listing information found for ingredients of this product which are considered hazardous. All other components are either listed on the inventories referenced or are exempt from listing. See Section 16 for explanation of column headings:

Chemical Name	EINECS	AICS	CHINA	ENCS	PICCS
2-Ethylhexyl nitrate	248-363-6	X	X	X	X
Naphthalene	202-049-5	X	X	X	X

16. OTHER INFORMATION

Regulatory Lists Searched & Other Sources of Information

ACGIH - American Convergence of Governmental Industrial Hygienists
 ADN - European Agreement for International Carriage of Dangerous Goods by Inland Waterways
 ADR - European Agreement for International Carriage of Dangerous Goods by Road
 AICS - Australian Inventory of Chemical Substances
 ANSI - American National Standards Institute
 CAP65 - California Proposition 65 Hazard List
 CAS - Chemical Abstract Services
 CERCLA - Comprehensive Environmental Response, Compensation & Liability Act
 CHINA - China Inventory
 CPR - Canadian Controlled Products Regulations
 DOT - United States Department of Transportation
 DSL - Canada Domestic Substances List
 EINECS - European Union (EU) European Inventory of Existing Commercial Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IARC - International Agency for Research on Cancer
 IATA - International Air Transport Association
 ICAO - International Civil Aviation Organization
 IMDG - International Maritime Dangerous Goods Code
 MARTK - Massachusetts Right To Know List
 NDSL - Canada Non-Domestic Substances List
 NFPA - United States National Fire Protection Association
 NIOSH - United States National Institute for Occupational Safety & Health
 NJRTK - New Jersey Right To Know List
 NTP - United States National Toxicology Program
 OSHA - United States Occupational Safety & Health Administration
 PARTK - Pennsylvania Right To Know List
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 RCRA - United States Resources Conservation & Recovery Act
 RID - European Agreement for International Carriage of Dangerous Goods by Rail
 RIHSL - Rhode Island Hazardous Substance List
 SARA - United States Superfund Amendments & Reauthorization Act
 TDG - Canada Transportation of Dangerous Goods Act
 TSCA - US Toxic Substances Control Act
 WHMIS - Canada Workplace Hazardous Materials Information System

Definitions

EC50 - Effective Concentration (Concentration of a compound where 50% of the expected effect is observed.)
 LC50 - Lethal Concentration (The concentration in water that will kill 50% of the test animals within a specific period of time, usually 96 hours.)
 LD50 - Lethal Dose (The single dose that will kill 50% of the test animals by any route other than inhalation such as by ingestion or skin contact.)
 OEL - Occupational Exposure Limit
 PEL - Permissible Exposure Limits
 STEL - Short Term Exposure Limit
 TLV - Threshold Limit Value
 TWA - Time Weighted Average

TWAEV - Time Weighted Average Exposure Value

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End of MSDS