



Hot ALL in 1 Heating Oil Treatment

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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Glycol Ether	100 ppm (skin)	150 ppm (skin)	100 ppm (600 mg/m ³) (skin)	N/Av
Aromatic naphtha	N/Av	N/Av	N/Av	N/Av
Aromatic hydrocarbon	25 ppm	N/Av	25 ppm (final rule limit)	N/Av
Aromatic hydrocarbon	25 ppm	N/Av	25 ppm ((final rule limit)	N/Av
Aromatic hydrocarbon	25 ppm	N/Av	25 ppm (final rule limit)	N/Av
Hydrocarbon	100 ppm	150 ppm	100 ppm (435 mg/m ³)	N/Av
Hydrocarbon	50 ppm	N/Av	50 ppm ; 245 mg/m ³ (Skin)	N/Av

Exposure controls

Ventilation and engineering measures

- : Use only outdoors or in a well-ventilated area. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use non-sparking equipment. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection

- : If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable approved respiratory protection. Advice should be sought from respiratory protection specialists.

Skin protection

- : Wear protective gloves/clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye / face protection

- : Wear eye/face protection. Chemical splash goggles are recommended. A full face shield may also be necessary.

Other protective equipment

- : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

General hygiene considerations

- : Avoid breathing mist or vapor. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Amber liquid.
- Odour : Mineral oil odor
- Odour threshold : N/Av
- pH : N/Av



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Melting Point/Freezing point : N/Av

Initial boiling point and boiling range

: 113 - 116 °C / 235 - 240°F

Flash point : >60°C / >140°F

Flashpoint (Method) : Tag closed cup

Evaporation rate (BuAe = 1) : Slower than n-butyl acetate

Flammability (solid, gas) : N/Av

Lower flammable limit (% by vol.)

: N/Av

Upper flammable limit (% by vol.)

: N/Av

Oxidizing properties : None.

Explosive properties : N/Av

Vapour pressure : N/Av

Vapour density : >1

Relative density / Specific gravity

: 0.90

Solubility in water : Slightly soluble.

Other solubility(ies) : N/Av

Partition coefficient: n-octanol/water or Coefficient of water/oil distribution

: N/Av

Auto-ignition temperature : N/Av

Decomposition temperature : N/Av

Viscosity : N/Av

Volatiles (% by weight) : ~ 87%

Volatile organic Compounds (VOC's)

: N/Av

Absolute pressure of container

: N/Av

Flame projection length : N/Av

Other physical/chemical comments

: None reported by the manufacturer.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions

: Hazardous polymerization will not occur.

Conditions to avoid : Keep away from flames and hot surfaces. Keep away from direct sunlight. Ensure adequate ventilation, especially in confined areas. Take precautionary measures against static discharge. Avoid contact with incompatible materials.

Incompatible materials : Strong oxidizing agents; Acids; Perchloric acid; Bases; Reactive metals

Hazardous decomposition products

: None reported by the manufacturer. Refer also to hazardous combustion products, Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES



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Routes of entry skin & eye : YES

Routes of entry Ingestion : YES

Routes of exposure skin absorption
: NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

: Inhalation may cause respiratory irritation and central nervous system depression. Symptoms include: Upper respiratory irritation, coughing, sneezing, staggering gait, giddiness, drowsiness, slurred speech, nausea, and possible nervous system depression.

Sign and symptoms ingestion

: Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea. May be fatal if swallowed and enters airways. Aspiration hazard - material may cause lung inflammation or damage if it enters lungs through vomiting or swallowing. Symptoms include coughing, shortness of breath and wheezing.

Sign and symptoms skin

: Causes skin irritation. Symptoms include: Dryness, itching, cracking, burning, redness and swelling.

Sign and symptoms eyes

: Causes serious eye irritation. Symptoms may include redness, pain, tearing and conjunctivitis.

Potential Chronic Health Effects

: Prolonged or repeated contact may cause drying, cracking and defatting of the skin.

Mutagenicity

: Not expected to be mutagenic in humans.

Carcinogenicity

: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification Carcinogenicity- Category 2 Suspected of causing cancer.
Contains Cumene. Cumene is classified as possibly carcinogenic by IARC (Group 2B).

Reproductive effects & Teratogenicity

: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification Reproductive toxicity - Category 2 Suspected of damaging the unborn child.
Contains Hydrocarbon Xylene may cause fetotoxic effects (e.g. reduced fetal weight, delayed ossification, behavioral effects) at doses which are not maternally toxic, based on animal data.

Sensitization to material

: Not expected to be a skin sensitizer.
Not expected to be a respiratory sensitizer.

Specific target organ effects

: Eyes, skin, respiratory system, digestive system, central nervous system, blood system.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Classification

Specific target organ toxicity, single exposure Category 3 May cause drowsiness and dizziness. May cause respiratory irritation.

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.



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Medical conditions aggravated by overexposure

: Pre-existing skin, eye, respiratory and central nervous system disorders.

Synergistic materials

: None reported by the manufacturer.

Toxicological data

: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC₅₀(4hr)</u> <u>inh, rat</u>	<u>LD₅₀</u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Glycol Ether	> 3 mg/L (mist) (No mortality)	5120 mg/kg	9480 mg/kg
Aromatic naphtha	>17.7mg/L/4H (vapour)	8400 mg/kg	>3160 mg/kg
Aromatic hydrocarbon	18 mg/L	5000 mg/kg	> 3160 mg/kg
Aromatic hydrocarbon	24 mg/L	23 000 mg/kg	>3160mg/kg
Aromatic hydrocarbon	18 - 24mg/kg (based on similar substances)	8970 mg/kg	>3160mg/kg (based on similar substances)
Hydrocarbon	6350 ppm (27.6 mg/L) (vapours)	3253 mg/kg	12 180 mg/kg
Hydrocarbon	8000 ppm; 39 mg/L	2260 mg/kg	10 627 mg/kg

Other important toxicological hazards

: None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

: No data is available on the product itself.
 See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Fish</u>		
		<u>LC50 / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Glycol Ether	Proprietary	> 10,000 mg/L (Fathead minnow)	N/Av	None.
Aromatic naphtha	Proprietary	9.22 mg/L (Rainbow trout)	N/Av	None.
Aromatic hydrocarbon	Proprietary	7.19 - 8.28 mg/L (Fathead minnow)	N/Av	None.
Aromatic hydrocarbon	Proprietary	12.52 mg/L (Goldfish)	N/Av	None.
Aromatic hydrocarbon	Proprietary	7.72mg/L (Fathead minnow) (Read-across)	N/Av	None.
Hydrocarbon	Proprietary	8.2 mg/L (Rainbow trout)	N/Av	None.
Hydrocarbon	Proprietary	4.5mg/L (Rainbow trout)	0.38mg/L QSAR	None.



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<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Glycol Ether	Proprietary	1919 mg/L (Daphnia magna)	≥ 0.5 mg/L	None.
Aromatic naphtha	Proprietary	6.16 mg/L (Daphnia magna)	N/Av	None.
Aromatic hydrocarbon	Proprietary	6.14 mg/L (Daphnia magna)	N/Av	None.
Aromatic hydrocarbon	Proprietary	6 mg/L (Daphnia magna)	0.4mg/L	None.
Aromatic hydrocarbon	Proprietary	2.7mg/L Daphnia magna (Water flea) (Read-across)	0.4mg/L (Read-across)	None.
Hydrocarbon	Proprietary	3.2 - 9.56 mg/L (Daphnia magna)	N/Av	None.
Hydrocarbon	Proprietary	2.14 mg/L (Daphnia magna)	0.35mg/L	None.

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Glycol Ether	Proprietary	> 969 mg/L/72hr (Green algae)	969 mg/L/72hr	None.
Aromatic naphtha	Proprietary	N/Av	N/Av	N/Av
Aromatic hydrocarbon	Proprietary	N/Av	N/Av	None.
Aromatic hydrocarbon	Proprietary	3.191mg/L QSAR	N/Av	None.
Aromatic hydrocarbon	Proprietary	5.7mg/L/72hr (Green algae) (Read-across)	0.38mg/L/72hr (Read-across)	None.
Hydrocarbon	Proprietary	3.2 - 4.9 mg/L/72hr (Green algae)	N/Av	None.
Hydrocarbon	Proprietary	1.29mg/L/72hr (Green algae)	0.73mg/L	None.

Persistence and degradability

: No data is available on the product itself.

Bioaccumulation potential

: No data is available on the product itself.

See the following data for ingredient information.



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<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Aromatic naphtha	2.1 - 6(calculated)	10 - 2500(calculated)
Aromatic hydrocarbon	3.78	31 - 275
Aromatic hydrocarbon	3.6 - 3.93	23 - 328
Hydrocarbon	3.12 - 3.2	0.6 - 15
Hydrocarbon	3.55 at 23 °C	224
Aromatic hydrocarbon	3.63	42 - 328
Glycol Ether	0.0061	< 1

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects

: The ecological characteristics of this product have not been fully investigated. Contains material that may be harmful in the environment. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

Methods of Disposal : Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.










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SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
ICAO/IATA	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Naphtha)	9	III	 
ICAO/IATA Additional information	Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.				
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha)	9	III	 
IMDG Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass.				
49CFR/DOT	NA1993	Combustible liquid, n.o.s. (Naphtha;)	Combustible.	III	
49CFR/DOT Additional information	Not regulated for road or rail shipment if packaged in non-bulk containers (450 Litres or less each). The 'label' appearing here is the placard to be used for bulk shipments. This product meets the criteria for an environmentally hazardous material according to the IMDG Code.				
TDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphtha)	9	III	 
TDG Additional information	This material may be shipped as an exempted marine pollutant in accordance with TDG Section 1.45.1 and Special Provision 99.				

Special precautions for user : Keep away from heat, sparks and open flame - No smoking.

Environmental hazards : This product meets the criteria for an environmentally hazardous material according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
 : Not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:



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<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Glycol Ether	Proprietary	Yes	None.	None.	No	N/Ap
Aromatic naphtha	Proprietary	Yes	N/Ap	N/Ap	No	N/Ap
Aromatic hydrocarbon	Proprietary	Yes	N/Ap	N/Ap	Yes	1%
Aromatic hydrocarbon	Proprietary	Yes	N/Ap	N/Av	No	N/Ap
Aromatic hydrocarbon	Proprietary	Yes	N/Ap	N/Ap	No	N/Ap
Hydrocarbon	Proprietary	Yes	100 lb/ 45.4 kg	None.	Yes	1%
Hydrocarbon	Proprietary	Yes	5000 lb/ 2270 kg	N/Ap	Yes	1%

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Flammable; Eye irritation; Skin irritation; Specific target organ toxicity, single exposure; Carcinogenicity; Reproductive toxicity; Aspiration hazard . Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Glycol Ether	Proprietary	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Aromatic naphtha	Proprietary	No	Not listed	No	No	No	No	No	No
Aromatic hydrocarbon	Proprietary	No	Not listed	No	Yes	Yes	Yes	Yes	No
Aromatic hydrocarbon	Proprietary	No	Not listed	Yes	Yes	No	No	No	No
Aromatic hydrocarbon	Proprietary	No	Not listed	Yes	Yes	Yes	Yes	Yes	No
Hydrocarbon	Proprietary	No	Not listed	Yes	Yes	Yes	Yes	Yes	Yes
Hydrocarbon	Proprietary	Yes	Carcinogen	Yes	Yes	Yes	Yes	Yes	Yes

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL). WHMIS Classification: See Section 2.

International Information:

Components listed below are present on the following International Inventory list:



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Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Glycol Ether	Proprietary	Proprietary	Present	Present	Present	Present	Present	Present
Aromatic naphtha	Proprietary	Proprietary	Present	Present	Present	Present	Present	May be used as a single component chemical under an appropriate group standard.
Aromatic hydrocarbon	Proprietary	Proprietary	Present	Present	Present	Present	Present	Present
Aromatic hydrocarbon	Proprietary	Proprietary	Present	Present	Present	Present	Present	Present
Aromatic hydrocarbon	Proprietary	Proprietary	Present	Present	Present	Present	Present	May be used as a single component chemical under an appropriate group standard
Hydrocarbon	Proprietary	Proprietary	Present	Present	(3)-60; (3)-3	KE-35427	Present	Present
Hydrocarbon	Proprietary	Proprietary	Present	Present	(Present	Present	Present	Present

SECTION 16. OTHER INFORMATION

Legend

- : ACGIH: American Conference of Governmental Industrial Hygienists
- ATE: Acute Toxicity Estimate
- AICS: Australian Inventory of Chemical Substances
- CA: California
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- CNS: Central Nervous System
- CSA: Canadian Standards Association
- DOT: Department of Transportation
- EC50: Effective Concentration 50%
- EINECS: European Inventory of Existing Commercial chemical Substances
- ENCS: Existing and New Chemical Substances
- EPA: Environmental Protection Agency
- HMIS: Hazardous Materials Identification System
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- Inh: Inhalation
- IMDG: International Maritime Dangerous Goods
- KECI: Korean Existing Chemicals Inventory
- KECL: Korean Existing Chemicals List
- LC: Lethal Concentration
- LD: Lethal Dose
- MA: Massachusetts
- MN: Minnesota
- MSHA: Mine Safety and Health Administration
- N/Ap: Not Applicable
- N/Av: Not Available
- NFPA: National Fire Protection Association
- NOEC: No observable effect concentration
- NTP: National Toxicology Program
- NJ: New Jersey



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NOEC: No observable effect concentration
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TPQ: Threshold Planning Quantity
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References : Material Safety Data Sheet from manufacturer.
European Chemicals Agency, Classification Legislation, 2019.
OECD - The Global Portal to Information on Chemical Substances

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Other special considerations for handling
: Provide adequate information, instruction and training for operators.

Prepared for:

FPPF Chemical Company, Inc.
100 Dingens St.
Buffalo, NY, USA 14206
Telephone: 1-800-735-3773
Please direct all enquiries to FPPF Chemical Company

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