JOHNSEN'S DIESEL FUEL CONDITIONER 12 FL.OZ.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 09/09/2014 : Version:

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

#748

Trade name : JOHNSEN'S DIESEL FUEL CONDITIONER 12 FL.OZ.

Product code : 5000

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Diesel Fuel Conditioner

1.3. Details of the supplier of the safety data sheet

Technical Chemical Company
P.O. BOX 139
Cleburne, Texas 76033
T 817-645-6088

1.4. Emergency telephone number

Emergency number : CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flam. Liq. 4 H227
Muta. 1B H340
Carc. 1B H350
Asp. Tox. 1 H304

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H227 - Combustible liquid
H304 - May be fatal if swallowed and enters airways
H340 - May cause genetic defects
H350 - May cause cancer

Precautionary statements (GHS-US) : P201 - Obtain special instructions
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat,sparks,open flames,hot surfaces. - No smoking
P280 - Wear protective gloves,protective clothing,eye protection,face protection
P301+P310 - If swallowed: Immediately call a poison control center, doctor,physician,
P308+P313 - If exposed or concerned: Get medical advice/attention
P331 - Do NOT induce vomiting
P370+P378 - In case of fire: See Section 5.1 Extinguishing Media
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Distillates (Petroleum), Hydrotreated Light	(CAS No) 64742-47-8	85 - 95	Asp. Tox. 1, H304
Solvent Naphtha (Petroleum), Light Aromatic	(CAS No) 64742-95-6	2.22 - 3.33	Flam. Liq. 2, H225 Muta. 1B, H340 Asp. Tox. 1, H304
1,2,4-Trimethylbenzene	(CAS No) 95-63-6	1.11 - 2.2089	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Naphtha, Heavy Aromatic	(CAS No) 64742-94-5	<= 1.53	Carc. 1B, H350
Xylene, Mixture of Isomers	(CAS No) 1330-20-7	0.111 - 0.5439	Flam. Liq. 3, H226 Skin Irrit. 2, H315
Cumene	(CAS No) 98-82-8	0.111 - 0.5439	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304
2-Ethyl-1-Hexanol	(CAS No) 104-76-7	0.255 - 0.5049	Flam. Liq. 4, H227
Naphthalene	(CAS No) 91-20-3	0.051 - 0.4641	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-Methylnaphthalene	(CAS No) 91-57-6	< 0.3978	Acute Tox. 4 (Oral), H302
Mesitylene	(CAS No) 108-67-8	0.051 - 0.2499	Flam. Liq. 3, H226 STOT SE 3, H335 Aquatic Chronic 2, H411
n-Propylbenzene	(CAS No) 103-65-1	0.051 - 0.2499	Flam. Liq. 3, H226
1-Methylnaphthalene	(CAS No) 90-12-0	< 0.19125	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302

The exact percentage is a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : May cause genetic defects. May cause cancer.

Symptoms/injuries after inhalation : Coughing. Dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause irritation or asthma-like symptoms.

Symptoms/injuries after skin contact : May cause slight irritation . Itching. Red skin. Skin rash/inflammation.

Symptoms/injuries after eye contact : May cause slight eye irritation . Irritation of the eye tissue. Inflammation/damage of the eye tissue. Redness of the eye tissue.

Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.

Explosion hazard : May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill. Contain released substance, pump into suitable containers. Plug the leak, cut off the supply.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Keep away from heat,sparks,open flames,hot surfaces. - No smoking.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Wash affected areas thoroughly after handling. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Keep in fireproof place.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

Follow Label Directions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Distillates (Petroleum), Hydrotreated Light (64742-47-8)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm 8 Hours

1-Methylnaphthalene (90-12-0)		
USA ACGIH	ACGIH TWA (ppm)	0.5 ppm
USA ACGIH	ACGIH STEL (ppm)	0.5 ppm

2-Methylnaphthalene (91-57-6)		
USA ACGIH	ACGIH TWA (ppm)	0.5 ppm
USA ACGIH	ACGIH STEL (ppm)	0.5 ppm

Naphtha, Heavy Aromatic (64742-94-5)		
USA ACGIH	ACGIH TWA (mg/m³)	25 mg/m³ 1-METHYLNAPHTHALENE
USA ACGIH	ACGIH TWA (ppm)	0.5 ppm 1-METHYLNAPHTHALENE

1,2,4-Trimethylbenzene (95-63-6)		
USA ACGIH	ACGIH TWA (ppm)	25 ppm
USA ACGIH	ACGIH STEL (ppm)	25 ppm

Xylene, Mixture of Isomers (1330-20-7)		
USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA ACGIH	ACGIH STEL (ppm)	100 ppm

Cumene (98-82-8)		
USA ACGIH	ACGIH TWA (ppm)	50 ppm
USA ACGIH	ACGIH STEL (ppm)	50 ppm

Mesitylene (108-67-8)		
USA ACGIH	ACGIH TWA (ppm)	25 ppm
USA ACGIH	ACGIH STEL (ppm)	25 ppm

8.2. Exposure controls

Appropriate engineering controls : Local exhaust venilation, vent hoods.

Personal protective equipment : Gloves. Safety glasses. Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Wear respiratory protection.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Liquid.

Color : Colourless to yellow.

Odor : Petroleum-like odour. Mild.

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : 0.19

Melting point : -58 °C

Freezing point : No data available

Boiling point : No data available

Flash point : 79 °C

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : 0.013 kPa

Relative vapor density at 20 °C : 4.5

Relative density : 0.83

Solubility : Insoluble in water.

Log Pow : No data available

Log Kow : No data available

Viscosity, kinematic : 1.92 cSt @ 40 deg C

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Explosive limits : No data available

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Combustible liquid. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Distillates (Petroleum), Hydrotreated Light (64742-47-8)	
LD50 oral rat	> 5000 mg/kg body weight
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.28 mg/l/4h Based on lack of mortality and systemic effects

1-Methylnaphthalene (90-12-0)	
LD50 oral rat	1840 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit; Literature study)

2-Methylnaphthalene (91-57-6)	
LD50 oral rat	1630 mg/kg (Rat)

Naphthalene (91-20-3)	
ATE CLP (oral)	500.000 mg/kg body weight

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)

1,2,4-Trimethylbenzene (95-63-6)	
LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature; 6000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 3440 mg/kg (Rat; Read-across; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	18 mg/l/4h (Rat)

Xylene, Mixture of Isomers (1330-20-7)	
LD50 oral rat	3523 - 8600 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 3523 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value; >4000 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 4200.000000 mg/kg (Rabbit; Experimental value,Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	29 mg/l/4h (Rat; Experimental value; 27.57 mg/l/4h; Rat; Experimental value)

Cumene (98-82-8)	
LD50 oral rat	> 2000 mg/kg (Rat; Other; Literature study; 4000 mg/kg bodyweight; Rat; Other; Inconclusive, insufficient data)
LD50 dermal rabbit	10578 mg/kg (Rabbit; Literature study; Other)
LC50 inhalation rat (mg/l)	40 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	8000 ppm/4h (Rat; Literature study)

2-Ethyl-1-Hexanol (104-76-7)	
LD50 oral rat	3290 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value)

2-Ethyl-1-Hexanol (104-76-7)	
LD50 dermal rat	> 3000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LD50 dermal rabbit	> 2600 mg/kg body weight (Rabbit; Experimental value; Equivalent or similar to OECD 402)

Mesitylene (108-67-8)	
LD50 oral rat	6000 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Read-across)
LD50 dermal rat	> 2000 mg/kg bw/day (Rat; Read-across; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	24 mg/l/4h (Rat; Literature study)

n-Propylbenzene (103-65-1)	
LD50 oral rat	6040 mg/kg (Rat; Literature study)

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : May cause genetic defects.
Carcinogenicity : May cause cancer.

Solvent Naphtha (Petroleum), Light Aromatic (64742-95-6)	
IARC group	3

Naphtha, Heavy Aromatic (64742-94-5)	
IARC group	2B
National Toxicity Program (NTP) Status	3

Xylene, Mixture of Isomers (1330-20-7)	
IARC group	3

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : May be fatal if swallowed and enters airways.
Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation : Coughing. Dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause irritation or asthma-like symptoms.
Symptoms/injuries after skin contact : May cause slight irritation . Itching. Red skin. Skin rash/inflammation.
Symptoms/injuries after eye contact : May cause slight eye irritation . Irritation of the eye tissue. Inflammation/damage of the eye tissue. Redness of the eye tissue.
Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

1-Methylnaphthalene (90-12-0)	
LC50 fish 1	8.4 mg/l (48 h; Salmo fario; Yearlings)
EC50 Daphnia 1	1.2 mg/l (48 h; Daphnia magna)
LC50 fish 2	9 mg/l (96 h; Pimephales promelas)
Threshold limit algae 1	1.71 - 5.12,3 h; Chlorophyta
Threshold limit algae 2	1200 µg/l (14 days; Selenastrum capricornutum; Growth)

2-Methylnaphthalene (91-57-6)	
LC50 fish 1	8 mg/l (96 h; Oncorhynchus mykiss)
LC50 other aquatic organisms 1	1.3 mg/l (96 h; Cancer sp.; Larvae)
LC50 fish 2	2.5 mg/l (48 h; Pimephales promelas)
Threshold limit other aquatic organisms 1	1.3 mg/l (96 h; Cancer sp.; Larvae)

Naphtha, Heavy Aromatic (64742-94-5)	
LC50 fish 1	2.1 - 4.2 mg/l (96 h; Lepomis macrochirus; Fresh water)
EC50 Daphnia 1	0.95 mg/l (48 h; Daphnia magna)
LC50 fish 2	2.34 mg/l (96 h; Oncorhynchus mykiss)
Threshold limit algae 1	1 mg/l (72 h; Skeletonema costatum; Growth)

1,2,4-Trimethylbenzene (95-63-6)	
LC50 fish 1	7.72 mg/l (96 h; Pimephales promelas; Lethal)

1,2,4-Trimethylbenzene (95-63-6)	
LC50 fish 2	18 mg/l (48 h; Oryzias latipes)
Threshold limit algae 1	1 mg/l (72 h; Algae)
Threshold limit algae 2	2.356 mg/l (96 h; Algae)

Xylene, Mixture of Isomers (1330-20-7)	
LC50 fish 1	13.5 mg/l (96 h; Lepomis macrochirus; Lethal)
EC50 Daphnia 1	150 mg/l (24 h; Daphnia magna)
LC50 fish 2	3.77 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	7.4 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	72 mg/l (336 h; Selenastrum capricornutum; Growth)
Threshold limit algae 2	10 mg/l (72 h; Skeletonema costatum)

Cumene (98-82-8)	
LC50 fish 1	2.7 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); GLP)
LC50 other aquatic organisms 1	10 - 100 mg/l (96 h)
EC50 Daphnia 1	2.14 mg/l (48 h; Daphnia magna; GLP)
LC50 fish 2	5.1 mg/l (96 h; Poecilia reticulata)
EC50 Daphnia 2	8 - 43 mg/l (96 h; Gammarus sp.)
TLM fish 1	10 - 100,96 h; Pisces
TLM other aquatic organisms 1	10 - 100,96 h
Threshold limit other aquatic organisms 1	10 - 100,96 h; Protozoa
Threshold limit other aquatic organisms 2	3.017 mg/l (24 h)
Threshold limit algae 1	0.92 - 1.2,Algae
Threshold limit algae 2	2.6 mg/l (72 h; Selenastrum capricornutum)

2-Ethyl-1-Hexanol (104-76-7)	
LC50 fish 1	32 - 37 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); GLP)
EC50 Daphnia 1	39 mg/l (48 h; Daphnia magna; GLP)
LC50 fish 2	17.1 mg/l (96 h; Leuciscus idus)
EC50 Daphnia 2	44 mg/l (24 h; Daphnia magna)
Threshold limit other aquatic organisms 1	300 mg/l (Activated sludge; Fermentation tube)
Threshold limit algae 1	8.5 mg/l (Scenedesmus quadricauda)
Threshold limit algae 2	7.3 mg/l (Microcystis aeruginosa)

Mesitylene (108-67-8)	
LC50 fish 1	8.6 mg/l (48 h; Oryzias latipes; Nominal concentration)
EC50 Daphnia 1	0.40 mg/l (504 h; Daphnia magna; Reproduction)
LC50 fish 2	13 mg/l (96 h; Carassius auratus)
TLM fish 1	13 mg/l (96 h; Carassius auratus)
Threshold limit algae 1	5 mg/l (Chlorophyta)
Threshold limit algae 2	25 mg/l (48 h; Scenedesmus subspicatus; Biomass)

n-Propylbenzene (103-65-1)	
LC50 fish 1	1.55 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	2 mg/l (24 h; Daphnia magna; Locomotor effect)
Threshold limit algae 1	16.2 mg/l (3 h; Chlorella vulgaris; Photosynthesis)
Threshold limit algae 2	1.8 mg/l (72 h; Selenastrum capricornutum; Growth)

12.2. Persistence and degradability

JOHNSEN'S DIESEL FUEL CONDITIONER 12 FL.OZ.	
Persistence and degradability	Not established.

Distillates (Petroleum), Hydrotreated Light (64742-47-8)	
Persistence and degradability	Not established.

1-Methylnaphthalene (90-12-0)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water.

2-Methylnaphthalene (91-57-6)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water.

Naphthalene (91-20-3)	
Persistence and degradability	May cause long-term adverse effects in the environment.

Naphtha, Heavy Aromatic (64742-94-5)	
Persistence and degradability	Not readily biodegradable in water.

1,2,4-Trimethylbenzene (95-63-6)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Low potential for mobility in soil. Photodegradation in the air.
Chemical oxygen demand (COD)	0.44 g O_2 /g substance

Xylene, Mixture of Isomers (1330-20-7)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available. Photolysis in the air.

Cumene (98-82-8)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.28 g O_2 /g substance
Chemical oxygen demand (COD)	2.42 g O_2 /g substance
ThOD	3.20 g O_2 /g substance
BOD (% of ThOD)	0.40 % ThOD

2-Ethyl-1-Hexanol (104-76-7)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.

Mesitylene (108-67-8)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorption to soil is possible. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.0957 g O_2 /g substance
Chemical oxygen demand (COD)	0.319 g O_2 /g substance
ThOD	3.19 g O_2 /g substance
BOD (% of ThOD)	0.03 % ThOD

n-Propylbenzene (103-65-1)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil. Adsorbs into the soil.

12.3. Bioaccumulative potential

JOHNSEN'S DIESEL FUEL CONDITIONER 12 FL.OZ.	
Bioaccumulative potential	Not established.

Distillates (Petroleum), Hydrotreated Light (64742-47-8)	
Bioaccumulative potential	Not established.

Solvent Naphtha (Petroleum), Light Aromatic (64742-95-6)	
Log Pow	2.1 - 6

1-Methylnaphthalene (90-12-0)	
BCF fish 1	20 (5 weeks; Oncorhynchus kisutch)
BCF fish 2	113-2000,1 - 2 weeks; Platichthys stellatus
Log Pow	3.87 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2-Methylnaphthalene (91-57-6)	
BCF fish 1	407 (624 h; Lepomis macrochirus; Muscles)
BCF fish 2	190 (840 h; Oncorhynchus kisutch; Muscles)
Log Pow	3.86 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Naphthalene (91-20-3)	
Bioaccumulative potential	Not established.

Naphtha, Heavy Aromatic (64742-94-5)	
Log Pow	2.9 - 6.1
Bioaccumulative potential	Bioaccumable.

1,2,4-Trimethylbenzene (95-63-6)	
BCF fish 1	31 - 275 (8 weeks; Cyprinus carpio)
Log Pow	3.63 - 4.09 (Experimental value)
Bioaccumulative potential	Not established.

Xylene, Mixture of Isomers (1330-20-7)	
BCF fish 1	15 8 weeks; Salmo gairdneri (Oncorhynchus mykiss)
BCF fish 2	7 - 26 (8 weeks; Oncorhynchus mykiss)
Log Pow	3.2 (Conclusion by analogy; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Cumene (98-82-8)	
BCF fish 1	35.5 (Carassius auratus)
BCF other aquatic organisms 1	94.69
Log Pow	3.66 (Experimental value; 3.55; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

2-Ethyl-1-Hexanol (104-76-7)	
BCF other aquatic organisms 1	25.33
Log Pow	2.9 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Mesitylene (108-67-8)	
BCF fish 1	23 - 342 (Cyprinus carpio; Chronic)
BCF fish 2	161 (Pimephales promelas)
Log Pow	3.42 - 4.13 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

n-Propylbenzene (103-65-1)	
Log Pow	3.69 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

1,2,4-Trimethylbenzene (95-63-6)	
Surface tension	0.029 N/m
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

Xylene, Mixture of Isomers (1330-20-7)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

2-Ethyl-1-Hexanol (104-76-7)	
Surface tension	0.000047 N/m (20 °C; 0.81 g/l)

Mesitylene (108-67-8)	
Surface tension	0.028 N/m
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to appropriate waste disposal facility, in accordance with local, regional, national, international regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

US DOT (ground): NA1993, Combustible liquid, n.o.s. (Petroleum Distillates), 3, III, Limited Quantity

ICAO/IATA (air): Not Regulated,

IMO/IMDG (water): Not Regulated,

Special Provisions: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

14.2. UN proper shipping name

Proper Shipping Name (DOT)	:	Combustible liquid, n.o.s. (Petroleum Distillates)
Department of Transportation (DOT) Hazard Classes	:	3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
DOT Symbols	:	D - Proper shipping name for domestic use only, or to and from Canada,G - Identifies PSN requiring a technical name
Packing group (DOT)	:	III - Minor Danger
DOT Special Provisions (49 CFR 172.102)	:	IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	150
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	241

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

SECTION 15: Regulatory information

15.1. US Federal regulations

JOHNSEN'S DIESEL FUEL CONDITIONER 12 FL.OZ.	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard

Distillates (Petroleum), Hydrotreated Light (64742-47-8)	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

Naphthalene (91-20-3)	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard

Naphtha, Heavy Aromatic (64742-94-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	14 % Naphthalene (CAS 91-20-3)

Xylene, Mixture of Isomers (1330-20-7)	
SARA Section 311/312 Hazard Classes	Fire hazard

15.2. International regulations

CANADA

JOHNSEN'S DIESEL FUEL CONDITIONER 12 FL.OZ.	
WHMIS Classification	Class B Division 3 - Combustible Liquid

Distillates (Petroleum), Hydrotreated Light (64742-47-8)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Naphthalene (91-20-3)	
WHMIS Classification	Class B Division 4 - Flammable Solid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.2; R45
Muta.Cat.2; R46
R52/53

Full text of R-phrases: see section 16

15.2.2. National regulations

Naphtha, Heavy Aromatic (64742-94-5)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Canadian NDSL (Non-Domestic Substances List) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on KECI (Korean Existing Chemicals Inventory) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

Naphthalene (91-20-3)
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

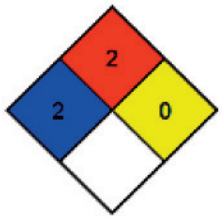
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Flam. Liq. 4	Flammable liquids Category 4
Muta. 1B	Germ cell mutagenicity Category 1B

Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 2 Moderate Hazard

Physical : 0 Minimal Hazard

Personal Protection : B

SDS US (GHS HazCom 2012) - TCC

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product

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