



# Fuel Conditioner + Octane Booster

## Safety Data Sheet

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

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### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : Fuel Conditioner + Octane Booster  
Product code : 3525  
Other means of identification : 3525, 3525-55

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

Use of the substance/mixture : Fuel: additive  
Recommended use : Fuels

#### 1.3. Details of the supplier of the safety data sheet

Bardahl Manufacturing Corporation  
1400 NW 52nd Street  
Seattle, WA 98107  
T 206-783-4851 - F 206-784-3219  
[jackie.leung@bardahl.com](mailto:jackie.leung@bardahl.com) - [www.bardahl.com](http://www.bardahl.com)

#### 1.4. Emergency telephone number

Emergency number : 800-424-9300

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Flammable liquids, Category 4	Combustible liquid
Skin corrosion/irritation, Category 2	Causes skin irritation
Carcinogenicity, Category 2	Suspected of causing cancer
Reproductive toxicity, Category 1B	May damage fertility or the unborn child
Specific target organ toxicity — Repeated exposure, Category 2	May cause damage to organs through prolonged or repeated exposure
Aspiration hazard, Category 1	May be fatal if swallowed and enters airways
Hazardous to the aquatic environment — Acute Hazard, Category 3	Harmful to aquatic life
Hazardous to the aquatic environment — Chronic Hazard, Category 2	Toxic to aquatic life with long lasting effects

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Combustible liquid  
May be fatal if swallowed and enters airways  
Causes skin irritation  
Suspected of causing cancer  
May damage fertility or the unborn child  
May cause damage to organs through prolonged or repeated exposure  
Harmful to aquatic life  
Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Keep away from open flames, sparks. - No smoking  
Do not breathe mist, vapours  
Wash hands thoroughly after handling  
Avoid release to the environment  
Wear eye protection, protective gloves  
If swallowed: Immediately call a POISON CENTER

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If on skin: Wash with plenty of water  
If exposed or concerned: Get medical advice/attention  
Get medical advice/attention if you feel unwell  
Specific treatment (see supplemental first aid instruction on this label)  
Do NOT induce vomiting  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash it before reuse  
In case of fire: Use alcohol resistant foam, BC-powder, carbon dioxide (CO2) to extinguish  
Collect spillage  
Store in a well-ventilated place. Keep cool  
Store locked up  
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

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Name	Product identifier	%	GHS-US classification
Petroleum distillate	(CAS No) 68476-34-6	>= 80	Flam. Liq. 4, H227 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Solvent naphtha (light aromatic)	(CAS No) 64742-95-6	1 - 5	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Aquatic Acute 3, H402
Glycol Ether DPM	(CAS No) 34590-94-8	1 - 5	Flam. Liq. 4, H227 Repr. 1B, H360
methylcyclopentadienyl manganese tricarbonyl	(CAS No) 12108-13-3	1 - 5	Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 1 (Inhalation), H330
Polyolefin alkyl phenol alkyl amine	(CAS No) Confidential	1 - 5	Skin Irrit. 2, H315
Solvent naphtha (heavy aromatic)	(CAS No) 64742-94-5	1 - 5	Skin Irrit. 2, H315 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
1,2,4-Trimethyl benzene	(CAS No) 95-63-6	0.1 - 5	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
1,3,5-Trimethyl benzene substance with OEL values	(CAS No) 108-67-8	0.1 - 1	Flam. Liq. 3, H226 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Xylene substance with OEL values	(CAS No) 1330-20-7	0.01 - 1	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315
1,2,3-Trimethyl benzene substance with OEL values	(CAS No) 526-73-8	0.01 - 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H335
Cumene substance with OEL values	(CAS No) 98-82-8	0.01 - 1	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Naphthalene	(CAS No) 91-20-3	0.01 - 1	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

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

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/injuries after skin contact : Irritation.
- Symptoms/injuries after ingestion : Risk of lung oedema.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

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

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### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Combustible liquid.  
Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

### 5.3. Advice for firefighters

- 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

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe mist, vapours.

#### 6.1.2. 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".

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.  
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.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist, vapours. Avoid contact with skin and eyes.  
Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

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

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Glycol Ether DPM (34590-94-8)		
ACGIH	ACGIH TWA (ppm)	100 ppm (2-Methoxymethylethoxy)propanol(DPGME); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value
ACGIH	ACGIH STEL (ppm)	150 ppm (2-Methoxymethylethoxy)propanol(DPGME); USA; Short time value; TLV - Adopted Value
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
Petroleum distillate (68476-34-6)		
Not applicable		
1,3,5-Trimethyl benzene (108-67-8)		
ACGIH	ACGIH TWA (ppm)	25 ppm (Trimethyl benzene (mixed isomers); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Not applicable		

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<b>Xylene (1330-20-7)</b>		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm
ACGIH	Remark (ACGIH)	URT & eye irr; CNS impair
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	435 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
<b>1,2,3-Trimethyl benzene (526-73-8)</b>		
ACGIH	ACGIH TWA (ppm)	25 ppm (Trimethyl benzene (mixed isomers); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Not applicable		
<b>Solvent naphtha (heavy aromatic) (64742-94-5)</b>		
Not applicable		
<b>Solvent naphtha (light aromatic) (64742-95-6)</b>		
Not applicable		
<b>1,2,4-Trimethyl benzene (95-63-6)</b>		
ACGIH	ACGIH TWA (ppm)	25 ppm (Trimethyl benzene (mixed isomers); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Not applicable		
<b>Cumene (98-82-8)</b>		
ACGIH	ACGIH TWA (ppm)	50 ppm (Cumene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Not applicable		
<b>Polyolefin alkyl phenol alkyl amine (Confidential)</b>		
Not applicable		
<b>methylcyclopentadienyl manganese tricarbonyl (12108-13-3)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup> (2-Methylcyclopentadienyl manganese tricarbonyl, as Mn; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Not applicable		
<b>Naphthalene (91-20-3)</b>		
ACGIH	ACGIH TWA (ppm)	10 ppm (Naphthalene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Not applicable		

### 8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Protective gloves.
Eye protection	: Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Wear respiratory protection.
Environmental exposure controls	: Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: amber
Odour	: characteristic
Odour threshold	: No data available
pH	: No data available

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Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 63.3 °C PMCC typical
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.85 g/cm <sup>3</sup> typical
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 3.1 cSt @ 40 C typical
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>Glycol Ether DPM (34590-94-8)</b>	
LD50 oral rat	5135 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; >5000 mg/kg; Rat; Experimental value)
LD50 dermal rat	9500 mg/kg (Rat; Literature study; Equivalent or similar to OECD 402; >19020 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	9500 mg/kg (Rabbit; Literature study)
ATE US (oral)	5135.000 mg/kg bodyweight
ATE US (dermal)	9500.000 mg/kg bodyweight
<b>Petroleum distillate (68476-34-6)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)

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<b>Petroleum distillate (68476-34-6)</b>	
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	11.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h
<b>1,3,5-Trimethyl benzene (108-67-8)</b>	
LD50 oral rat	6000 mg/kg bodyweight (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)
ATE US (oral)	6000.000 mg/kg bodyweight
ATE US (vapours)	24.000 mg/l/4h
ATE US (dust,mist)	24.000 mg/l/4h
<b>Xylene (1330-20-7)</b>	
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 mg/kg bodyweight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	29 mg/l/4h (Rat; Experimental value; 27.57 mg/l/4h; Rat; Experimental value)
<b>Solvent naphtha (heavy aromatic) (64742-94-5)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)
<b>Solvent naphtha (light aromatic) (64742-95-6)</b>	
LD50 oral rat	> 2000 mg/kg (Rat)
LD50 dermal rabbit	> 3160 mg/kg (Rabbit)
<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
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)
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	18.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h
<b>Cumene (98-82-8)</b>	
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)
ATE US (dermal)	10578.000 mg/kg bodyweight
ATE US (gases)	8000.000 ppmv/4h
ATE US (vapours)	40.000 mg/l/4h
ATE US (dust,mist)	40.000 mg/l/4h
<b>methylcyclopentadienyl manganese tricarbonyl (12108-13-3)</b>	
LD50 oral rat	51.8 mg/kg (Rat)
LD50 dermal rat	665 mg/kg (Rat)
LD50 dermal rabbit	140 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.076 mg/l/4h (Rat)
ATE US (oral)	51.800 mg/kg bodyweight
ATE US (dermal)	140.000 mg/kg bodyweight
ATE US (gases)	10.000 ppmv/4h
ATE US (vapours)	0.076 mg/l/4h
ATE US (dust,mist)	0.076 mg/l/4h
<b>Naphthalene (91-20-3)</b>	
LD50 oral rat	> 1100 mg/kg (Rat)

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<b>Naphthalene (91-20-3)</b>	
LD50 dermal rat	> 2500 mg/kg (Rat)
LD50 dermal rabbit	> 20000 mg/kg (Rabbit)
ATE US (oral)	500.000 mg/kg bodyweight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.

<b>Xylene (1330-20-7)</b>	
IARC group	3 - Not classifiable

<b>Cumene (98-82-8)</b>	
IARC group	2B - Possibly carcinogenic to humans

<b>Naphthalene (91-20-3)</b>	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity	: May damage fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : May be fatal if swallowed and enters airways.

Symptoms/injuries after skin contact : Irritation.

Symptoms/injuries after ingestion : Risk of lung oedema.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects. Harmful to aquatic life.

<b>Glycol Ether DPM (34590-94-8)</b>	
EC50 Daphnia 1	1919 mg/l (LC50; Equivalent or similar to OECD 202; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 1	969 mg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum; Static system; Fresh water; Experimental value)
Threshold limit algae 2	> 969 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum; Static system; Fresh water; Experimental value)

<b>1,3,5-Trimethyl benzene (108-67-8)</b>	
EC50 Daphnia 1	6 mg/l (LC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 2	25 mg/l (EC50; DIN 38412-9; 48 h; Scenedesmus subspicatus; Static system; Fresh water; Experimental value)

<b>Solvent naphtha (heavy aromatic) (64742-94-5)</b>	
EC50 Daphnia 1	0.95 mg/l (EC50; 48 h)
LC50 fish 2	2.34 mg/l (LC50; 96 h; Oncorhynchus mykiss)
Threshold limit algae 2	2.5 mg/l (EC50; 72 h)

<b>Solvent naphtha (light aromatic) (64742-95-6)</b>	
LC50 fish 1	18 mg/l (LC50)
EC50 Daphnia 1	21 mg/l (EC50)
Threshold limit algae 1	1 - 10, EC50



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<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
LC50 fish 1	7.72 mg/l (LC50; 96 h; Pimephales promelas; Flow-through system; Fresh water)
EC50 Daphnia 1	3.6 mg/l (LC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 2	2.356 mg/l (EC50; ECOSAR; 96 h; Algae; Fresh water)

<b>Cumene (98-82-8)</b>	
EC50 Daphnia 1	2.14 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)

<b>Naphthalene (91-20-3)</b>	
EC50 Daphnia 1	2.16 mg/l (EC50; 48 h; Daphnia magna)
LC50 fish 2	0.11 mg/l (LC50; 96 h; Oncorhynchus mykiss)
Threshold limit algae 1	0.4 mg/l (EC50; 72 h; Skeletonema costatum)

### 12.2. Persistence and degradability

<b>Glycol Ether DPM (34590-94-8)</b>	
Persistence and degradability	Readily biodegradable in water. No (test)data on mobility of the substance available. Photolysis in the air.
Biochemical oxygen demand (BOD)	0 g O <sub>2</sub> /g substance
ThOD	2.06 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0

<b>Petroleum distillate (68476-34-6)</b>	
Persistence and degradability	Inherently biodegradable. No (test)data on mobility of the components available.

<b>1,3,5-Trimethyl benzene (108-67-8)</b>	
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 <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.319 g O <sub>2</sub> /g substance
ThOD	3.19 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.03

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

<b>1,2,3-Trimethyl benzene (526-73-8)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil. Photodegradation in the air.

<b>Solvent naphtha (heavy aromatic) (64742-94-5)</b>	
Persistence and degradability	Not readily biodegradable in water.

<b>Solvent naphtha (light aromatic) (64742-95-6)</b>	
Persistence and degradability	Readily biodegradable in water.

<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
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 <sub>2</sub> /g substance

<b>Cumene (98-82-8)</b>	
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 <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.42 g O <sub>2</sub> /g substance
ThOD	3.20 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.40

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<b>methylocyclopentadienyl manganese tricarbonyl (12108-13-3)</b>	
Persistence and degradability	Biodegradability in water: no data available.
<b>Naphthalene (91-20-3)</b>	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.22 g O <sub>2</sub> /g substance
ThOD	2.99 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>Glycol Ether DPM (34590-94-8)</b>	
Log Pow	0.0043 (Experimental value; OECD 102: Melting Point/Melting Range; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>Petroleum distillate (68476-34-6)</b>	
Log Pow	3.9 - 6

<b>1,3,5-Trimethyl benzene (108-67-8)</b>	
BCF fish 2	161 (BCF)
Log Pow	3.42 - 4.13 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

<b>Xylene (1330-20-7)</b>	
BCF fish 2	7 - 26 (BCF; 8 weeks; Oncorhynchus mykiss; Flow-through system; Fresh water)
Log Pow	3.2 (Conclusion by analogy; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

<b>1,2,3-Trimethyl benzene (526-73-8)</b>	
BCF fish 1	133 - 259 (BCF)
Log Pow	3.66 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

<b>Solvent naphtha (heavy aromatic) (64742-94-5)</b>	
Log Pow	2.9 - 6.1
Bioaccumulative potential	Bioaccumable.

<b>Solvent naphtha (light aromatic) (64742-95-6)</b>	
Log Pow	2.1 - 6

<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
BCF fish 1	31 - 275 (BCF; Other; 8 weeks; Cyprinus carpio)
Log Pow	3.63 - 4.09 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).

<b>Cumene (98-82-8)</b>	
BCF fish 1	35.5 (BCF)
BCF other aquatic organisms 1	94.69 (BCF; BCFBAF v3.00)
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).

<b>methylocyclopentadienyl manganese tricarbonyl (12108-13-3)</b>	
Bioaccumulative potential	No bioaccumulation data available.

<b>Naphthalene (91-20-3)</b>	
BCF fish 1	23 - 168 (BCF; 8 weeks; Cyprinus carpio)
Log Pow	3.30 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

<b>Petroleum distillate (68476-34-6)</b>	
Surface tension	0.025 N/m

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<b>1,3,5-Trimethyl benzene (108-67-8)</b>	
Surface tension	0.028 N/m
Log Koc	log Koc,2.87; Calculated value
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>Xylene (1330-20-7)</b>	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
Surface tension	0.029 N/m
Log Koc	log Koc,3.04; Calculated value
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>Cumene (98-82-8)</b>	
Log Koc	Koc,884; Calculated value; log Koc; 2.946; Calculated value
<b>Naphthalene (91-20-3)</b>	
Surface tension	0.03 N/m (100 °C)

### 12.5. Other adverse effects

Effect on the global warming : No known effects from this product.  
GWPmix comment : No known effects from this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT  
Not applicable

### TDG

Not applicable

### Transport by sea

UN-No. (IMDG) : 3082  
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles  
Packing group (IMDG) : III - substances presenting low danger  
Limited quantities (IMDG) : 5 L  
Marine pollutant : Yes (IMDG only)



### Air transport

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Fuel Conditioner + Octane Booster

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

#### Glycol Ether DPM (34590-94-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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<b>Petroleum distillate (68476-34-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>1,3,5-Trimethyl benzene (108-67-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Xylene (1330-20-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
<b>1,2,3-Trimethyl benzene (526-73-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Solvent naphtha (heavy aromatic) (64742-94-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Solvent naphtha (light aromatic) (64742-95-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
<b>Cumene (98-82-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
<b>methylcyclopentadienyl manganese tricarbonyl (12108-13-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	100 lb

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

### National regulations

<b>Cumene (98-82-8)</b>
Listed on IARC (International Agency for Research on Cancer)

### 15.3. US State regulations

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Cumene (98-82-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	

Glycol Ether DPM (34590-94-8)
U.S. - New Jersey - Right to Know Hazardous Substance List

Xylene (1330-20-7)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

1,2,4-Trimethyl benzene (95-63-6)
U.S. - New Jersey - Right to Know Hazardous Substance List

Cumene (98-82-8)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

methylocyclopentadienyl manganese tricarbonyl (12108-13-3)
U.S. - New Jersey - Right to Know Hazardous Substance List

### SECTION 16: Other information

Revision date : 03/20/2017

Full text of H-statements:

H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H227	Combustible liquid
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H310	Fatal in contact with skin
H312	Harmful in contact with skin
H315	Causes skin irritation
H330	Fatal if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful 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

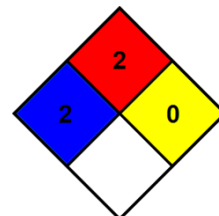
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

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.



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### HMIS III Rating

Health	: 2 Moderate Hazard - Temporary or minor injury may occur
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.
Personal protection	: B B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*