



# Emission System Cleaner

## 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  
Trade name : Emission System Cleaner  
Product code : 5045

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Gasoline additive

#### 1.3. Supplier

Bardahl Manufacturing Corporation  
1400 NW 52nd Street  
P.O. Box 70607  
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 3	Flammable liquid and vapour.
Skin corrosion/irritation, Category 2	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	Causes serious eye irritation.
Skin sensitisation, Category 1	May cause an allergic skin reaction.
Germ cell mutagenicity, Category 1B	May cause genetic defects.
Carcinogenicity, Category 1B	May cause cancer.
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	May cause respiratory irritation.
Aspiration hazard, Category 1	May be fatal if swallowed and enters airways.
Hazardous to the aquatic environment — Acute Hazard, Category 2	Toxic to aquatic life
Hazardous to the aquatic environment — Chronic Hazard, Category 2	Toxic to aquatic life with long lasting effects.

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Flammable liquid and vapour.  
May be fatal if swallowed and enters airways.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause respiratory irritation.  
May cause genetic defects.  
May cause cancer.  
Toxic to aquatic life  
Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS-US) :

Do not handle until all safety precautions have been read and understood.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.  
Ground/Bond container and receiving equipment  
Use explosion-proof electrical, lighting equipment.  
Use only non-sparking tools.

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Take precautionary measures against static discharge.  
Avoid breathing mist, vapours.  
Wash hands thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing must not be allowed out of the workplace  
Avoid release to the environment.  
Wear eye protection, protective gloves.  
If swallowed: Immediately call a POISON CENTER  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
If inhaled: Remove person to fresh air and keep comfortable for breathing  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Call a doctor if you feel unwell  
Do NOT induce vomiting.  
If skin irritation occurs: Get medical advice/attention.  
If skin irritation or rash occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
Wash contaminated clothing 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 container tightly closed.  
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 which do not result in classification

No additional information available

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

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Petroleum Distillates	(CAS-No.) 68476-34-6	50 - 80	Flam. Liq. 4, H227 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Carc. 2, H351 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Solvent naphtha (light aromatic)	(CAS-No.) 64742-95-6	10 - 30	Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304 Aquatic Acute 3, H402
Polyolefin alkyl phenol alkyl amine	(CAS-No.) Confidential	5 - 20	Skin Irrit. 2, H315
1,2,4-Trimethyl benzene	(CAS-No.) 95-63-6	1 - 10	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
N-Propylbenzene	(CAS-No.) 103-65-1	0.1 - 5	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
2-Ethylhexan-1-ol	(CAS-No.) 104-76-7	0.1 - 5	Flam. Liq. 4, H227 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 3, H402

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Name	Product identifier	%	GHS-US classification
Xylene	(CAS-No.) 1330-20-7	0.1 - 5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Aquatic Acute 2, H401
1,2,3-Trimethyl benzene	(CAS-No.) 526-73-8	0.1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Cumene	(CAS-No.) 98-82-8	0.1 - 5	Flam. Liq. 3, H226 Carc. 2, H351 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
o-Ethyltoluene	(CAS-No.) 611-14-3	0.1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304
Long-chain alkyl acid	(CAS-No.) 27859-58-1	0.01 - 1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1A, H317

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. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all 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 (acute and delayed)

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Irritation.
- Symptoms/effects after ingestion : Risk of lung oedema.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

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

#### 5.2. Specific hazards arising from the chemical

- Fire hazard : Flammable liquid and vapour.
- Reactivity : Flammable liquid and vapour.

#### 5.3. Special protective equipment and precautions for fire-fighters

- 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 : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe mist, vapours. Avoid contact with skin and eyes.

##### 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".

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### 6.2. Environmental precautions

Avoid release to the environment.

### 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 : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. 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. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.  
Hygiene measures : 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

Technical measures : Ground/bond container and receiving equipment.  
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>o-Ethyltoluene (611-14-3)</b>		
Not applicable		
<b>Long-chain alkyl acid (27859-58-1)</b>		
Not applicable		
<b>Petroleum Distillates (68476-34-6)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> 8 hrs
<b>N-Propylbenzene (103-65-1)</b>		
Not applicable		
<b>2-Ethylhexan-1-ol (104-76-7)</b>		
Not applicable		
<b>Xylene (1330-20-7)</b>		
ACGIH	Local name	Xylene
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
<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

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Cumene (98-82-8)		
ACGIH	ACGIH TWA (ppm)	50 ppm
Polyolefin alkyl phenol alkyl amine (Confidential)		
Not applicable		

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Colourless amber
Odour	: characteristic
Odour threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 50 °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	: 0.868 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	: 6.3 mm <sup>2</sup> /s @ 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

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Flammable liquid and vapour.

#### 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 (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

<b>Petroleum Distillates (68476-34-6)</b>	
LD50 oral rat	7600 mg/kg
LD50 dermal rabbit	> 4300 mg/kg
LC50 inhalation rat (mg/l)	4.1 mg/l/4h
ATE US (oral)	7600 mg/kg bodyweight
ATE US (gases)	4500 ppmv/4h
ATE US (vapours)	4.1 mg/l/4h
ATE US (dust,mist)	4.1 mg/l/4h
<b>N-Propylbenzene (103-65-1)</b>	
LD50 oral rat	6040 mg/kg (Rat, Literature study, Oral)
ATE US (oral)	6040 mg/kg bodyweight
<b>2-Ethylhexan-1-ol (104-76-7)</b>	
LD50 oral rat	3290 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral)
LD50 dermal rat	> 3000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, Rat, Male/female, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	0.89 - 5.3 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male/female, Experimental value, Inhalation (mixture of vapour and aerosol))
ATE US (oral)	3290 mg/kg bodyweight
ATE US (gases)	4500 ppmv/4h
ATE US (vapours)	11 mg/l/4h
ATE US (dust,mist)	1.5 mg/l/4h
<b>Xylene (1330-20-7)</b>	
LD50 oral rat	3523 mg/kg bodyweight (Equivalent or similar to EU Method B.1: Acute Toxicity (Oral), Rat, Male, Experimental value, Oral, 14 day(s))
ATE US (oral)	3523 mg/kg bodyweight
ATE US (dermal)	1100 mg/kg bodyweight
ATE US (gases)	4500 ppmv/4h
ATE US (vapours)	11 mg/l/4h
ATE US (dust,mist)	1.5 mg/l/4h
<b>Solvent naphtha (light aromatic) (64742-95-6)</b>	
LD50 oral rat	> 2000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 3160 mg/kg (Rabbit, Dermal)

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<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
LD50 oral rat	6000 mg/kg bodyweight (EU Method B.1 tris: Acute oral toxic – Acute toxic class method, Rat, Male, Experimental value, Oral)
LD50 dermal rat	3440 mg/kg (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male/female, Read-across, Dermal)
LC50 inhalation rat (mg/l)	10.2 mg/l air (Other, 4 h, Rat, Male/female, Read-across, Inhalation)
ATE US (oral)	6000 mg/kg bodyweight
ATE US (dermal)	3440 mg/kg bodyweight
ATE US (gases)	4500 ppmv/4h
ATE US (vapours)	11 mg/l/4h
ATE US (dust,mist)	1.5 mg/l/4h

<b>Cumene (98-82-8)</b>	
LD50 oral rat	> 2000 mg/kg (Other, Rat, Literature study, Oral)
LD50 dermal rabbit	10578 mg/kg (Other, Rabbit, Literature study, Dermal)
LC50 inhalation rat (mg/l)	40 mg/l (Other, 4 h, Rat, Literature study, Inhalation)
ATE US (dermal)	10578 mg/kg bodyweight
ATE US (vapours)	40 mg/l/4h
ATE US (dust,mist)	40 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Causes serious eye irritation.  
Respiratory or skin sensitisation : May cause an allergic skin reaction.  
Germ cell mutagenicity : May cause genetic defects.  
Carcinogenicity : May cause cancer.

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

Reproductive toxicity : Not classified  
STOT-single exposure : May cause respiratory irritation.

<b>o-Ethyltoluene (611-14-3)</b>	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

<b>N-Propylbenzene (103-65-1)</b>	
STOT-single exposure	May cause respiratory irritation.

<b>2-Ethylhexan-1-ol (104-76-7)</b>	
STOT-single exposure	May cause respiratory irritation.

<b>1,2,3-Trimethyl benzene (526-73-8)</b>	
STOT-single exposure	May cause respiratory irritation.

<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
STOT-single exposure	May cause respiratory irritation.

<b>Cumene (98-82-8)</b>	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : May be fatal if swallowed and enters airways.  
Viscosity, kinematic : 6.3 mm<sup>2</sup>/s @ 40 C typical  
Symptoms/effects after inhalation : May cause respiratory irritation.  
Symptoms/effects after skin contact : Irritation.  
Symptoms/effects after ingestion : Risk of lung oedema.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

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

<b>N-Propylbenzene (103-65-1)</b>	
LC50 fish 1	1.55 mg/l (96 h, Salmo gairdneri, Literature study)
EC50 Daphnia 1	2 mg/l (24 h, Daphnia magna, Literature study, Locomotor effect)
<b>2-Ethylhexan-1-ol (104-76-7)</b>	
LC50 fish 1	17.1 mg/l (EU Method C.1, 96 h, Leuciscus idus, Flow-through system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	39 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
<b>Xylene (1330-20-7)</b>	
LC50 fish 1	2.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static renewal, Fresh water, Read-across, Lethal)
ErC50 (algae)	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
<b>Solvent naphtha (light aromatic) (64742-95-6)</b>	
LC50 fish 1	18 mg/l (Pisces)
EC50 Daphnia 1	21 mg/l (Daphnia sp.)
<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
LC50 fish 1	7.72 mg/l (96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)
<b>Cumene (98-82-8)</b>	
LC50 fish 1	4.8 mg/l (EPA OTS 797.1400, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	2.14 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

#### 12.2. Persistence and degradability

<b>N-Propylbenzene (103-65-1)</b>	
Persistence and degradability	Biodegradable in the soil. Not readily biodegradable in water.
<b>2-Ethylhexan-1-ol (104-76-7)</b>	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
<b>Xylene (1330-20-7)</b>	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
<b>1,2,3-Trimethyl benzene (526-73-8)</b>	
Persistence and degradability	Non degradable in the soil. 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	Biodegradable in the soil. Not readily biodegradable in water.
Chemical oxygen demand (COD)	0.44 g O <sub>2</sub> /g substance
<b>Cumene (98-82-8)</b>	
Persistence and degradability	Biodegradable in the soil. Inherently biodegradable. Not readily biodegradable in water.
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	3.2 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.4

#### 12.3. Bioaccumulative potential



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<b>N-Propylbenzene (103-65-1)</b>	
Log Pow	3.69 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>2-Ethylhexan-1-ol (104-76-7)</b>	
BCF other aquatic organisms 1	25.33 (BCFWIN, Calculated value)
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).
<b>Xylene (1330-20-7)</b>	
BCF fish 1	7.2 - 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Log Pow	3.2 (Read-across, 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 (Cyprinus carpio, Literature study)
Log Pow	3.66 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<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 (Other, 8 week(s), Cyprinus carpio, Weight of evidence)
Log Pow	3.63 - 4.09 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>Cumene (98-82-8)</b>	
BCF fish 1	35.5 (Carassius auratus)
BCF other aquatic organisms 1	94.69 (BCFBAF v3.00, Calculated value)
Log Pow	3.66 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

<b>N-Propylbenzene (103-65-1)</b>	
Ecology - soil	Adsorbs into the soil.
<b>2-Ethylhexan-1-ol (104-76-7)</b>	
Surface tension	0.000047 N/m (20 °C, 0.81 g/l)
Ecology - soil	Highly mobile in soil.
<b>Xylene (1330-20-7)</b>	
Surface tension	28.01 - 29.76 mN/m (25 °C)
Log Koc	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.
<b>1,2,3-Trimethyl benzene (526-73-8)</b>	
Ecology - soil	Adsorbs into the soil.
<b>1,2,4-Trimethyl benzene (95-63-6)</b>	
Surface tension	0.029 N/m
Log Koc	3.04 (log Koc, Calculated value)
Ecology - soil	Low potential for mobility in soil. May be harmful to plant growth, blooming and fruit formation.
<b>Cumene (98-82-8)</b>	
Log Koc	2.946 (log Koc, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

### 12.5. Other adverse effects

No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

- Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Additional information : Flammable vapours may accumulate in the container.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

- Transport document description : UN1993 Flammable liquids, n.o.s. (PETROLEUM DISTILLATES, XYLENE), LTD QTY, 3, III  
UN-No.(DOT) : UN1993  
Proper Shipping Name (DOT) : Flammable liquids, n.o.s.  
(PETROLEUM DISTILLATES, XYLENE), LTD QTY  
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120  
Packing group (DOT) : III - Minor Danger  
Hazard labels (DOT) : 3 - Flammable liquid



- Dangerous for the environment : Yes  
Marine pollutant : Yes



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 203  
DOT Packaging Bulk (49 CFR 173.xxx) : 242  
DOT Symbols : G - Identifies PSN requiring a technical name  
DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.  
B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.  
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).  
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.  
TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.  
DOT Packaging Exceptions (49 CFR 173.xxx) : 150  
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L  
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

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Emergency Response Guide (ERG) Number : 128  
Other information : No supplementary information available.

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

Transport document description (IMDG) : UN 1993 FLAMMABLE LIQUID, N.O.S., 3, III, MARINE POLLUTANT  
UN-No. (IMDG) : 1993  
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N.O.S.  
Class (IMDG) : 3 - Flammable liquids  
Packing group (IMDG) : III - substances presenting low danger  
Limited quantities (IMDG) : 5 L  
Marine pollutant : Yes



### Air transport

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Emission System Cleaner

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

#### N-Propylbenzene (103-65-1)

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

#### 2-Ethylhexan-1-ol (104-76-7)

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

#### Xylene (1330-20-7)

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

#### 1,2,3-Trimethyl benzene (526-73-8)

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

#### Solvent naphtha (light aromatic) (64742-95-6)

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

#### 1,2,4-Trimethyl benzene (95-63-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Subject to reporting requirements of United States SARA Section 313

#### Cumene (98-82-8)

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

### 15.2. International regulations

#### CANADA

No additional information available

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### EU-Regulations

No additional information available

### National regulations

#### Cumene (98-82-8)

Listed on IARC (International Agency for Research on Cancer)

### 15.3. US State regulations

#### 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	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		

Component	State or local regulations
N-Propylbenzene(103-65-1)	U.S. - New Jersey - Right to Know Hazardous Substance List
2-Ethylhexan-1-ol(104-76-7)	
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
1,2,3-Trimethyl benzene(526-73-8)	
Solvent naphtha (light aromatic)(64742-95-6)	
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
Polyolefin alkyl phenol alkyl amine(Confidential)	
o-Ethyltoluene(611-14-3)	
Long-chain alkyl acid(27859-58-1)	
Petroleum Distillates(68476-34-6)	

### SECTION 16: Other information

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Full text of H-statements:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H227	Combustible liquid
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects.

NFPA health hazard

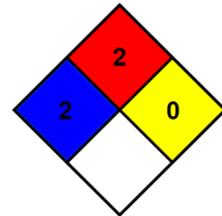
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard 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*