



# Complete Fuel 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 : Complete Fuel System Cleaner  
Product code : 5025

#### 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 4	Combustible liquid
Carcinogenicity, Category 1B	May cause cancer.
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 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) : Combustible liquid  
May be fatal if swallowed and enters airways.  
May cause cancer.  
May cause damage to organs through prolonged or repeated exposure.  
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.  
Do not breathe mist, vapours.  
Avoid release to the environment.  
Wear eye protection, protective gloves.  
If swallowed: Immediately call a POISON CENTER  
Get medical advice/attention if you feel unwell.  
Do NOT induce vomiting.  
In case of fire: Use alcohol resistant foam, BC-powder, carbon dioxide (CO<sub>2</sub>) 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

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### 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	Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Petroleum naphtha	(CAS-No.) 64742-47-8	1 - 10	Asp. Tox. 1, H304
Solvent naphtha (petroleum), heavy arom.	(CAS-No.) 64742-94-5	1 - 10	Asp. Tox. 1, H304 Aquatic Acute 1, H400
Distillates (petroleum), hydrotreated middle	(CAS-No.) 64742-46-7	1 - 5	Carc. 1B, H350
Naphthalene	(CAS-No.) 91-20-3	0.3743 - 1.8715	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.
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 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 : Dry powder. Foam. Carbon dioxide. Water spray.

### 5.2. Specific hazards arising from the chemical

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

### 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 : 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".

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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 : 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. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe mist, vapours.  
Hygiene measures : Separate working clothes from town clothes. Launder separately. 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

petroleum distillates (68476-34-6)		
ACGIH	Local name	Diesel fuel as total
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Petroleum naphtha (64742-47-8)		
Not applicable		
Solvent naphtha (petroleum), heavy arom. (64742-94-5)		
Not applicable		
Naphthalene (91-20-3)		
ACGIH	ACGIH TWA (ppm)	10 ppm
Distillates (petroleum), hydrotreated middle (64742-46-7)		
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

#### Personal protective equipment:

Protective goggles. Protective clothing. Gloves.

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

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Wear suitable protective clothing

### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

### Personal protective equipment symbol(s):



## 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	: 67.8 °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	: 0.858 (0.85 - 0.86) typical
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 7.5 (7 - 8) 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

## 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.

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### 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

petroleum distillates (68476-34-6)	
LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	> 5 mg/l (4 h, Rat, Inhalation)

Solvent naphtha (petroleum), heavy arom. (64742-94-5)	
LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	> 5 mg/l (4 h, Rat, Inhalation)

Naphthalene (91-20-3)	
LD50 dermal rat	> 2500 mg/kg (Rat, Dermal)
ATE US (oral)	533 mg/kg bodyweight

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

Reproductive toxicity : Not classified  
STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

petroleum distillates (68476-34-6)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : May be fatal if swallowed and enters airways.  
Viscosity, kinematic : 7.5 (7 - 8) mm<sup>2</sup>/s @ 40 C typical  
Symptoms/effects after ingestion : Risk of lung oedema.

## SECTION 12: Ecological information

### 12.1. Toxicity

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

Solvent naphtha (petroleum), heavy arom. (64742-94-5)	
LC50 fish 1	2.34 mg/l (96 h, Oncorhynchus mykiss, Fresh water)
EC50 Daphnia 1	0.95 mg/l (48 h, Daphnia magna)

Naphthalene (91-20-3)	
LC50 fish 1	0.11 mg/l (96 h, Oncorhynchus mykiss, Literature study)
EC50 Daphnia 1	2.16 mg/l (48 h, Daphnia magna, Literature study)

### 12.2. Persistence and degradability

petroleum distillates (68476-34-6)	
Persistence and degradability	Inherently biodegradable.

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<b>Solvent naphtha (petroleum), heavy arom. (64742-94-5)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>Naphthalene (91-20-3)</b>	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
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>petroleum distillates (68476-34-6)</b>	
Log Pow	3.9 - 6
<b>Solvent naphtha (petroleum), heavy arom. (64742-94-5)</b>	
Log Pow	2.9 - 6.1
Bioaccumulative potential	Bioaccumable.
<b>Naphthalene (91-20-3)</b>	
BCF fish 1	23 - 168 (8 week(s), Cyprinus carpio, Literature study)
Log Pow	3.3 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

<b>petroleum distillates (68476-34-6)</b>	
Surface tension	0.025 N/m
Ecology - soil	No (test)data on mobility of the components available.
<b>Naphthalene (91-20-3)</b>	
Surface tension	0.03 N/m (100 °C)
Ecology - soil	Adsorbs into the soil.

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal 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

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PETROLEUM DISTILLATES, LTD QTY), 9, III, MARINE POLLUTANT

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

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Limited quantities (IMDG) : 5 L  
Marine pollutant : Yes



### Air transport

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Complete Fuel System Cleaner

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

#### petroleum distillates (68476-34-6)

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

#### Petroleum naphtha (64742-47-8)

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

#### Solvent naphtha (petroleum), heavy arom. (64742-94-5)

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

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. US State regulations

Component	State or local regulations
petroleum distillates(68476-34-6)	
Petroleum naphtha(64742-47-8)	
Solvent naphtha (petroleum), heavy arom.(64742-94-5)	
Naphthalene(91-20-3)	
Distillates (petroleum), hydrotreated middle(64742-46-7)	

## SECTION 16: Other information

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Full text of H-statements:

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H350	May cause cancer.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
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

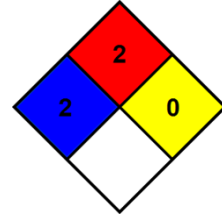
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

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*