



Engine Tune-Up

Safety Data Sheet

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

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Version: 1.5

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Engine Tune-Up
Product code : 4019
Other means of identification : 4018, 4018-J, 4019, 4055-C

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

Recommended use : Lubricants, Greases and Release Products

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 - 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
Acute toxicity (inhalation:dust,mist) Category 4	Harmful if inhaled
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 — Chronic Hazard, Category 2	Toxic to aquatic life with long lasting effects

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

GHS09

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Combustible liquid
May be fatal if swallowed and enters airways
Causes skin irritation
Harmful if inhaled
Suspected of causing cancer
May damage fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure
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
Avoid breathing mist, vapours
Wash hands thoroughly after handling
Use only outdoors or in a well-ventilated area
Avoid release to the environment
Wear eye protection, protective gloves
If swallowed: Immediately call a POISON CENTER
If on skin: Wash with plenty of water

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If inhaled: Remove person to fresh air and keep comfortable for breathing
If exposed or concerned: Get medical advice/attention
Call a doctor if you feel unwell
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

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
Glycol Ether DPM	(CAS No) 34590-94-8	1 - 5	Flam. Liq. 4, H227 Repr. 1B, H360

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 : 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.

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.

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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 : 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. Use only outdoors or in a well-ventilated area. 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 ³)	600 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
Petroleum distillate (68476-34-6)		
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.

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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
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 62.2 °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	: 0.844 typical
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 3.8 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 : Inhalation:dust,mist: Harmful if inhaled.

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ATE US (dust,mist)	1.633 mg/l/4h
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Glycol Ether DPM (34590-94-8)	
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

Petroleum distillate (68476-34-6)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	11.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h

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.
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.

Glycol Ether DPM (34590-94-8)	
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)

12.2. Persistence and degradability

Glycol Ether DPM (34590-94-8)	
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 ₂ /g substance
ThOD	2.06 g O ₂ /g substance
BOD (% of ThOD)	0

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

12.3. Bioaccumulative potential

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

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Petroleum distillate (68476-34-6)

Log Pow	3.9 - 6
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12.4. Mobility in soil

Petroleum distillate (68476-34-6)

Surface tension	0.025 N/m
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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

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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

Petroleum distillate (68476-34-6)

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

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National regulations

No additional information available

15.3. US State regulations

Glycol Ether DPM (34590-94-8)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Revision date : 11/03/2016

Full text of H-statements:

H227	Combustible liquid
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H332	Harmful if inhaled
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard

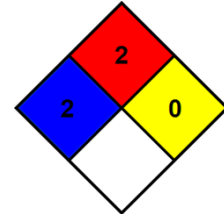
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

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 - 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