PennGrade 1® High Performance Synthetic Blend SAE 5W-30, PennGrade 1® High Performance Synthetic Blend SAE 10W-30, PennGrade 1® High Performance Synthetic Blend SAE 10W-40, PennGrade 1® High Performance Synthetic Blend SAE 15W-40, PennGrade 1® High Performance Synthetic Blend SAE 20W-50

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 07/09/2019 Version: 1.1 Revision Date: 08/01/2024

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : PennGrade 1® High Performance Synthetic Blend SAE 5W-30, PennGrade 1® High Performance Synthetic Blend SAE 10W-30, PennGrade 1® High Performance Synthetic Blend SAE 10W-40, PennGrade 1® High Performance Synthetic Blend SAE 15W-40, PennGrade 1® High Performance Synthetic Blend SAE 20W-50

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Lubricant

Restrictions on use : No additional information available

1.3. Supplier

D-A Lubricant Company, Inc.
801 Edwards Dr
Lebanon, IN 46052
T 317-923-5321, Toll Free 1-800-873-2582
www.dalube.com

1.4. Emergency telephone number

Emergency number : 1-800-424-9300 Toll-Free / Local +1-703-527-3887 USA/CAN 24 hours

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Repr. 2	H361	Suspected of damaging fertility or the unborn child.

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

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Warning

Hazard statements (GHS US) : H361 - Suspected of damaging fertility or the unborn child.

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
P501 - 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)

14.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
14.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
14.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%)	(CAS-No.) 64742-54-7	40 - 80	Asp. Tox. 1, H304
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based (DMSO < 3%)	(CAS-No.) 72623-87-1	5 - 15	Asp. Tox. 1, H304
Zinc alkyl dithiophosphate	(CAS-No.) 113706-15-3	1 - 2	Skin Irrit. 2, H315 Eye Dam. 1, H318
tetrapropenylphenol	(CAS-No.) 74499-35-7	0.01 - 0.2	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

***Chemical name, CAS number and/or exact concentration have been withheld as a trade secret**

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

First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

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

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Suspected of damaging fertility or the unborn child.

Symptoms/effects after skin contact : Prolonged or repeated contact may cause skin to become dry or cracked.

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 : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

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

5.2. Specific hazards arising from the chemical

Fire hazard : Burning produces irritating, toxic and noxious fumes.

Reactivity : No dangerous reactions known.

5.3. Special protective equipment and precautions for fire-fighters

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

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

Protective equipment : Refer to section 8.2.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Refer to section 8.2.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers. Collect spillage. Minimise generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place.

Incompatible products : Strong bases. Strong acids. Strong oxidizers.

Incompatible materials : Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)		
ACGIH	ACGIH TWA (mg/m³)	5 mg/m³
ACGIH	ACGIH STEL (mg/m³)	10 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³

Zinc alkyl dithiophosphate (113706-15-3)
Not applicable

tetrapropenylphenol (74499-35-7)
Not applicable

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based (DMSO < 3%) (72623-87-1)		
ACGIH	ACGIH TWA (mg/m³)	5 mg/m³ oil mist
ACGIH	ACGIH STEL (mg/m³)	10 mg/m³ oil mist

8.2. Appropriate engineering controls

Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Either local exhaust or general room ventilation is usually required. Industrial and professional. Perform risk assessment prior to use.

Environmental exposure controls	:	Avoid release to the environment. Prevent leakage or spillage. Prevent contaminated water run-off.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear suitable gloves resistant to chemical penetration. Natural rubber. nitrile rubber gloves

Eye protection:

In case of splashing or aerosol production: protective goggles.

Respiratory protection:

Industrial and professional. Perform risk assessment prior to use. In case of inadequate ventilation wear respiratory protection. Approved organic vapour respirator

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Green
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	> 202 °C ASTM D92
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	65.6 - 159 mm^2/s @ 40 °C
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

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

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

Unknown acute toxicity (GHS US)	14.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 14.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 14.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5.53 mg/l/4h

Zinc alkyl dithiophosphate (113706-15-3)	
LD50 oral rat	2600 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
ATE US (oral)	2600 mg/kg bodyweight

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based (DMSO < 3%) (72623-87-1)	
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified. (Zinc alkyl dithiophosphate not irritating <10%.)
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : 65.6 - 159 mm²/s @ 40 °C

Likely routes of exposure	:	Skin and eye contact. Inhalation.
Symptoms/effects	:	Suspected of damaging fertility or the unborn child.
Symptoms/effects after skin contact	:	Prolonged or repeated contact may cause skin to become dry or cracked.

SECTION 12: Ecological information

12.1. Toxicity

Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)	
EC50 Daphnia 1	> 10000 mg/l

Zinc alkyl dithiophosphate (113706-15-3)	
LC50 fish 1	4.5 mg/l 96 h Rainbow trout

tetrapropenylphenol (74499-35-7)	
NOEC (chronic)	0.002 mg/l

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based (DMSO < 3%) (72623-87-1)	
LC50 fish 1	> 100 mg/l
EC50 Daphnia 1	> 10000 mg/l
ErC50 (algae)	>= 100 mg/l
NOEC (acute)	> 100 mg/kg

12.2. Persistence and degradability

PennGrade 1® High Performance Synthetic Blend SAE 5W-30, PennGrade 1® High Performance Synthetic Blend SAE 10W-30, PennGrade 1® High Performance Synthetic Blend SAE 10W-40, PennGrade 1® High Performance Synthetic Blend SAE 15W-40 PennGrade 1® High Performance Synthetic Blend SAE 20W-50	
Persistence and degradability	Not established.

Zinc alkyl dithiophosphate (113706-15-3)	
Persistence and degradability	Not readily biodegradable.

tetrapropenylphenol (74499-35-7)	
Persistence and degradability	Product persists.

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based (DMSO < 3%) (72623-87-1)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	2 - 4 %

12.3. Bioaccumulative potential

PennGrade 1® High Performance Synthetic Blend SAE 5W-30, PennGrade 1® High Performance Synthetic Blend SAE 10W-30, PennGrade 1® High Performance Synthetic Blend SAE 10W-40, PennGrade 1® High Performance Synthetic Blend SAE 15W-40 PennGrade 1® High Performance Synthetic Blend SAE 20W-50	
Bioaccumulative potential	Not established.

Zinc alkyl dithiophosphate (113706-15-3)	
Log Pow	0.9

tetrapropenylphenol (74499-35-7)	
Log Pow	7.17

12.4. Mobility in soil

Zinc alkyl dithiophosphate (113706-15-3)	
Ecology - soil	Absorbs to soil particles and will not be mobile.

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based (DMSO < 3%) (72623-87-1)	
Mobility in soil	22 %

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

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

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated.

Transport by sea

Not regulated.

Air transport

Not regulated.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

vinyl acetate	CAS-No. 108-05-4
ethylene glycol	CAS-No. 107-21-1

Zinc alkyl dithiophosphate (113706-15-3)	
EPA TSCA Regulatory Flag	P - P - indicates a commenced Premanufacture Notice (PMN) substance.

15.2. International regulations

CANADA

Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)
Listed on the Canadian DSL (Domestic Substances List) inventory.

Zinc alkyl dithiophosphate (113706-15-3)
Listed on the Canadian DSL (Domestic Substances List) inventory.

tetrapropenylphenol (74499-35-7)
Listed on the Canadian NDSL (Non-Domestic Substances List)

EU-Regulations

Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Zinc alkyl dithiophosphate (113706-15-3)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

tetrapropenylphenol (74499-35-7)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Distillates (petroleum), hydrotreated heavy paraffinic (DMSO < 3%) (64742-54-7)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on KECI (Korean Existing Chemicals Inventory) Listed on the TCSI (Taiwan Chemical Substance Inventory) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on NZIoC (New Zealand Inventory of Chemicals)

tetrapropenylphenol (74499-35-7)
Not listed on the AICS (Australian Inventory of Chemical Substances) Listed on Taiwan National Chemical Inventory Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on KECI (Korean Existing Chemicals Inventory) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Not listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

15.3. US State regulations

⚠ **WARNING:** This product can expose you to Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	Carcinogenicity	Developmental toxicity	Reproductive toxicity male	Reproductive toxicity female	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Benzene(71-43-2)	X	X	X		6.4 µg/day (oral); 13 µg/day (inhalation)	24 µg/day (oral); 49 µg/day (inhalation)
Toluene(108-88-3)		X				7000 µg/day (oral); 13000 µg/day (inhalation)
ethylene glycol(107-21-1)		X				8700 µg/day (oral)
lead/lead compounds()	X	X	X	X	15 µg/day	0.5 µg/day
Naphthalene(91-20-3)	X				5.8 µg/day	

SECTION 16: Other information

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

Data sources : ACGIH (American Conference of Government Industrial Hygienists). European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. OSHA 29CFR 1910.1200 Hazard Communication Standard. TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html.

Other information : Revised Product Names with Copyright symbols.

Full text of H-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

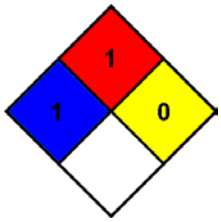
Abbreviations and acronyms:

	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	OSHA: Occupational Safety & Health Administration
	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act
	TWA: Time Weighted Average

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

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



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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.