



SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company/undertaking

Duragard® 100% Synthetic SHG-46 ZF Hydraulic & Mild EP Gear Oil

Product Use: Applications requiring a high temperature, anti-wear hydraulic oil

Product Number(s): DURSHG46ZFxx

Synonyms: Duragard® Diamond Plate® SHG-46 Zinc Free Gear Oil, Duragard® 100% Syn SHG-46 ZF, Duragard® SHG-46 ZF

Company Identification

Advantage Dist. & Lubricants, LLC
3434 Marion RD SE
Rochester, MN 55904
United States of America
www.advantagelubes.com

Transportation Emergency Response

CHEMTREC: (800) 424-9300 US, Canada, or U.S. Virgin Islands or (703) 527-3887 all other areas.

Health Emergency

Poison Control Center: Located in the USA. 1-800-222-1222

Product Information

email: info@advantagelubes.com
Product Information: (800) 420-1414, (507) 289-5555 local
SDS Requests: (800) 420-1414, (507) 289-5555 local

2. Hazard identification of the product

2.1. Classification of the substance or mixture

No applicable GHS categories.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

No applicable GHS categories.

[Prevention]:

No GHS prevention statements

[Response]:

No GHS response statements

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements



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3. Composition/information on ingredients

This product is considered a mixture.

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Dec-1-ene, homopolymer, hydrogenated CAS Number: 0068037-01-4	50 - 75	Not Classified	
Diisodecyl phthalate CAS Number: 0026761-40-0	10 - 25	Not Classified	
1-Octene Homopolymer, Hydrogenated CAS Number: 0070693-43-5	1.0 - 10	Not Classified	
Phosphoric acid CAS Number: 0007664-38-2	1.0 - 10	Skin Corr. 1B;H314 (> 25%)	[1][2]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

This formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Trade secrets are allowable per paragraph (i) of 29 CFR 1910.1200 as long as specific chemical identity and exact percentage composition are available and will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion

If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

Overview

See section 2 for further details if applicable.

5. Fire-fighting measures

5.1. Extinguishing media

Dry chemical, foam, carbon dioxide or water spray.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: None under normal use.

5.3. Advice for fire-fighters



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In the event of fire, wear full protective clothing and NIOSH Approved Self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapors.

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Use personal protective equipment.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Use a non-combustible material like vermiculite, sand or earth to soak up product and place in a container for later disposal.

Dike for disposal and cover with wet sand or earth.

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details.

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Store in a cool dry place.

Keep containers tightly closed.

Incompatible materials: Incompatible with strong oxidizing agents

See section 2 for further details.

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0007664-38-2	Phosphoric acid	OSHA	TWA 1 mg/m ³
		ACGIH	TWA: 1 mg/m ³ STEL: 3 mg/m ³
		NIOSH	TWA 1 mg/m ³ ST 3 mg/m ³
		Supplier	No Established Limit
0026761-40-0	Diisodecyl phthalate	OSHA	No Established Limit
		ACGIH	No Established Limit



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		NIOSH	No Established Limit
		Supplier	No Established Limit
0068037-01-4	Dec-1-ene, homopolymer, hydrogenated	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0070693-43-5	1-Octene Homopolymer, Hydrogenated	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0007664-38-2	Phosphoric acid	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0026761-40-0	Diisodecyl phthalate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0068037-01-4	Dec-1-ene, homopolymer, hydrogenated	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0070693-43-5	1-Octene Homopolymer, Hydrogenated	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes

Safety glasses with side shields

Skin

Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. Physical and chemical properties

Appearance

Clear and bright

Odor

Mild

Odor threshold

Not Measured

pH

Not Measured

Melting point / freezing point

Not Measured



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Pour Point	-48 C / -55 F
Initial boiling point and boiling range	Not Measured
Flash Point	240 C / 464 F
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	0.86
Solubility in Water	Not Measured
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	47.3 cSt @40C
VOC %	Not Measured

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Incompatible with strong oxidizing agents

10.6. Hazardous decomposition products

None under normal use.

11. Toxicological information

Acute toxicity

Product is safe for intended use based on the formulation, testing results and the long history of safe consumer use.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
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Dec-1-ene, homopolymer, hydrogenated - (68037-01-4)	> 5,000.00, Rat - Category: NA	3,000.00, Rabbit - Category: 5	No data available	4,800.00, Rat - Category: NA	No data available
Diisodecyl phthalate - (26761-40-0)	9,700.00, Rat - Category: NA	2,900.00, Rabbit - Category: 5	No data available	No data available	No data available
1-Octene Homopolymer, Hydrogenated - (70693-43-5)	No data available	No data available	No data available	No data available	No data available
Phosphoric acid - (7664-38-2)	1,530.00, Rat - Category: 4	2,740.00, Rabbit - Category: 5	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Dec-1-ene, homopolymer, hydrogenated - (68037-01-4)	Not Available	Not Available	Not Available
Diisodecyl phthalate - (26761-40-0)	Not Available	Not Available	Not Available
1-Octene Homopolymer, Hydrogenated - (70693-43-5)	Not Available	Not Available	Not Available
Phosphoric acid - (7664-38-2)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential



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Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable DOT Label: ---	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: No		
14.6. Special precautions for user	No further information		

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification Not Regulated

US EPA Tier II Hazards

Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): No
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):

Phosphoric acid (5,000.00)



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EPCRA 302 Extremely Hazardous :

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

N.J. RTK Substances (>1%):

Phosphoric acid

Penn RTK Substances (>1%):

Phosphoric acid

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H314 Causes severe skin burns and eye damage.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information provided on the SDS is a correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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