

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : DA Open Gear

1.2. Recommended use and restrictions on use

Recommended use : Lubricant
Restrictions on use : No additional information available

1.3. Supplier

Loadmaster Lubricants, LLC
13615 Fenway Blvd. Ct. N
Hugo, MN 55038
T 651-656-2225 - F 651-653-3402

1.4. Emergency telephone number

Emergency number : CHEMTREC (24hrs): 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Sens. 1B H317 May cause an allergic skin reaction.

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) : H317 - May cause an allergic skin reaction.

Precautionary statements (GHS-US) :

- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P272 - Contaminated work clothing must not be allowed out of the workplace
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 - If on skin: Wash with plenty of water/...
- P321 - Specific treatment (see supplemental first aid instruction on this label)
- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
- P363 - Wash contaminated clothing before reuse.
- 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)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Petroleum distillates (DMSO < 3%)	(CAS-No.) trade secret	10 - 15	Asp. Tox. 1, H304
Sulfurized Blend	(CAS-No.) trade secret	1 - 5	Eye Irrit. 2B, H320
Processing aid	(CAS-No.) trade secret	1 - 5	Skin Sens. 1B, H317

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Name	Product identifier	%	GHS-US classification
Isobutene-butene polymer	(CAS-No.) trade secret	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Alkyl thiadiazole	(CAS-No.) trade secret	0.1 - 0.5	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
Thiadiazole	(CAS-No.) trade secret	0.1 - 0.5	Skin Sens. 1B, H317 Aquatic Chronic 2, H411

*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 : Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
- 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. Wash skin thoroughly with mild soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing 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. Get medical advice/attention if you feel unwell.

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

- Symptoms/effects after skin contact : May cause an allergic skin reaction.

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 contact with skin, eyes and clothing. Do not breathe aerosol. Do not breathe fumes. Use personal protective equipment as required.

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.

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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. Collect spillage. 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. Avoid contact with skin, eyes and clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe aerosol. Do not breathe fumes.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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

Petroleum distillates (DMSO < 3%) (trade secret)		
ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³ oil mist
ACGIH	ACGIH STEL (mg/m ³)	10 mg/m ³ oil mist
OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
Isobutene-butene polymer (trade secret)		
Not applicable		
Processing aid (trade secret)		
Not applicable		
Sulfurized Blend (trade secret)		
Not applicable		
Alkyl thiadiazole (trade secret)		
Not applicable		
Thiadiazole (trade secret)		
Not applicable		

8.2. Appropriate engineering controls

- Appropriate engineering controls : Avoid creating mist or spray. Avoid inhalation of the product. Either local exhaust or general room ventilation is usually required. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

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

Eye protection:

Chemical goggles or safety glasses

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Respiratory protection:

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
Appearance	: Paste. Opaque.
Colour	: Grey Black
Odour	: mild petroleum
Odour threshold	: No data available
pH	: 7 - 7.2 (1% soln)
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 371 °C
Flash point	: > 177 °C
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: < 1 mm Hg @ 20 °C
Relative vapour density at 20 °C	: No data available
Relative density	: 1.005 @ 20 °C
Solubility	: Water: < 5 %
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: > 1000 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

Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Petroleum distillates (DMSO < 3%) (trade secret)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Isobutene-butene polymer (trade secret)	
LD50 oral rat	> 34600 mg/kg
LD50 dermal rabbit	> 10250 mg/kg
LC50 inhalation rat (mg/l)	> 17300 mg/m ³

Processing aid (trade secret)	
LD50 oral rat	6480 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
ATE US (oral)	6480 mg/kg bodyweight

Alkyl thiadiazole (trade secret)	
ATE US (dust,mist)	1.5 mg/l/4h

Thiadiazole (trade secret)	
LD50 oral rat	> 2500 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: > 1000 mm ² /s @ 40 °C
Likely routes of exposure	: Inhalation. Skin and eye contact.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.

SECTION 12: Ecological information

12.1. Toxicity

Isobutene-butene polymer (trade secret)	
LC50 fish 1	> 1000 mg/l
EC50 Daphnia 1	> 1000 mg/l

Thiadiazole (trade secret)	
LC50 fish 1	> 100 mg/l 96 h
EC50 Daphnia 1	18 mg/l 48 h
NOEC (acute)	0.56 mg/l Daphnia 48 h

12.2. Persistence and degradability

DA Open Gear	
Persistence and degradability	Not established.

Petroleum distillates (DMSO < 3%) (trade secret)	
Persistence and degradability	Not established.

Isobutene-butene polymer (trade secret)	
Persistence and degradability	This product is not expected to be biodegradable.

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Thiadiazole (trade secret)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	41 % 28 d

12.3. Bioaccumulative potential

DA Open Gear	
Bioaccumulative potential	Not established.

Petroleum distillates (DMSO < 3%) (trade secret)	
Bioaccumulative potential	Not established.

Isobutene-butene polymer (trade secret)	
Bioaccumulative potential	This product is not bioaccumulating.

12.4. Mobility in soil

Isobutene-butene polymer (trade secret)	
Ecology - soil	This material has low solubility and floats and is not expected to partition to water.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

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.

polyethylene high density	CAS-No. 9002-88-4	0.1 - 1%
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15.2. International regulations

CANADA

Petroleum distillates (DMSO < 3%) (trade secret)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

Isobutene-butene polymer (trade secret)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

Processing aid (trade secret)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

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Sulfurized Blend (trade secret)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Alkyl thiadiazole (trade secret)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Thiadiazole (trade secret)
Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Petroleum distillates (DMSO < 3%) (trade secret)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Isobutene-butene polymer (trade secret)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Processing aid (trade secret)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Sulfurized Blend (trade secret)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- Directive 79/831/EEC, sixth Amendment of Directive 67/548/EEC (dangerous substances)
Alkyl thiadiazole (trade secret)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Thiadiazole (trade secret)
Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on ELINCS (European List of Notified Chemical Substances)

National regulations

Petroleum distillates (DMSO < 3%) (trade secret)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECI (Korean Existing Chemicals Inventory) Listed on Taiwan National Chemical Inventory Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the AICS (Australian Inventory of Chemical Substances) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Isobutene-butene polymer (trade secret)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on Taiwan National Chemical Inventory Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Processing aid (trade secret)
Listed on KECI (Korean Existing Chemicals Inventory) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on Taiwan National Chemical Inventory Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Sulfurized Blend (trade secret)
Listed on the AICS (Australian Inventory of Chemical Substances)
Alkyl thiadiazole (trade secret)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on Taiwan National Chemical Inventory Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

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Thiadiazole (trade secret)

Exempt from the United States Toxic Substances Control Act (TSCA) inventory.
Listed on the AICS (Australian Inventory of Chemical Substances)

15.3. US State regulations

⚠ WARNING: This product can expose you to Silicon dioxide (cristobalite), which is known to the State of California to cause cancer. 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)
Silicon dioxide (cristobalite)(14808-60-7)	X					

SECTION 16: Other information

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

Revision date : 08/31/2018

Data sources : ACGIH (American Conference of Government Industrial Hygienists). Canadian Centre for Occupational Health and Safety. Accessed at: http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html. 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. TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>. WHMIS: The Workplace Hazardous Materials Information System: Canada's national hazard communication standard.

Other information : None.

Full text of H-statements:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation, Category 2B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H320	Causes eye irritation
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:

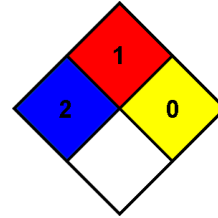
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	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: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

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



Indication of changes:

Composition/information on ingredients. Classification.

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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