



Link Belt Hydraulic Oil HSL-1

Safety Data Sheet

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

Date of issue: 09/15/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Link Belt Hydraulic Oil HSL-1

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

Use of the substance/mixture : Lubricant

1.3. Details of the supplier of the safety data sheet

Viscosity Oil Company
600 H Joliet Road
Willowbrook, IL 60527
T 630-850-4000 - F 630-850-4022

1.4. Emergency telephone number

Emergency number : (800) 434-9300
CHEMTREC (24 HOURS)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Eye Dam. 1 H318
Skin Sens. 1 H317

Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS05

GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage

Precautionary statements (GHS-US) : P261 - Avoid breathing mist, spray, vapours
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear eye protection, protective gloves
P302+P352 - If on skin: Wash with plenty of First aid measures
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a doctor
P321 - Specific treatment (see First aid measures 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 an authorised waste collection point

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

3.02 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
4.52 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
4.52 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product identifier	%	GHS-US classification
Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%)	(CAS No) 64742-65-0	0 – 90	Asp. Tox. 1, H304
Mineral oil	(CAS No) trade secret	0 – 5	Asp. Tox. 1, H304
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	(CAS No) 4259-15-8	0 – 2	Eye Dam. 1, H318 Aquatic Chronic 2, H411
triphenyl phosphite	(CAS No) 101-02-0	0 – 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
c14-18 alpha-olefin epoxide, reaction products with boric acid	(CAS No) trade secret	0 – 1	Skin Sens. 1B, H317
Zinc alkyl dithiophosphate	(CAS No) 68649-42-3	0 – 1	Eye Dam. 1, H318 Aquatic Chronic 2, H411

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret
Full text of 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 victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Wash with plenty of 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 cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

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

- Symptoms/injuries after skin contact : May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : Causes serious eye damage.

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 : Carbon dioxide. Dry chemical. Foam. Water fog.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : No particular fire or explosion hazard. Thermal decomposition may produce : Carbon oxides (CO, CO₂). hydrocarbons. Nitrogen oxides. Phosphorus oxides. Sulphur oxides.
- Explosion hazard : Product is not explosive.
- Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

- Firefighting instructions : Cool adjacent structures and containers with water spray to protect and prevent ignition. Do not allow run-off from fire fighting to enter drains or water courses. Fight fire with normal precautions from a reasonable distance.
- 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 : Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.
- Emergency procedures : Evacuate unnecessary personnel.

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6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.
Emergency procedures : Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Do not discharge into drains or the environment.

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. Do not allow minor leaks or spills to accumulate on walking surfaces.
Methods for cleaning up : Absorb and/or contain spill with inert material, then place in suitable container.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapour and mist.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. 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 container tightly closed.
Incompatible products : Oxidizing agent.
Heat and ignition sources : Keep away from heat, sparks and flame.
Prohibitions on mixed storage : Incompatible materials.
Storage area : Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

Lubricant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Link Belt Hydraulic Oil HSL-1		
ACGIH	Not applicable	
OSHA	Not applicable	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)		
ACGIH	ACGIH TWA (mg/m ³)	5
OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
Zinc alkyl dithiophosphate (68649-42-3)		
ACGIH	Not applicable	
OSHA	Not applicable	
triphenyl phosphite (101-02-0)		
ACGIH	Not applicable	
OSHA	Not applicable	
Mineral oil (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	Not applicable	
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)		
ACGIH	Not applicable	
OSHA	Not applicable	

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c14-18 alpha-olefin epoxide, reaction products with boric acid (trade secret)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

Appropriate engineering controls	: Avoid creating mist or spray. Use only outdoors or in a well-ventilated area.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear suitable gloves resistant to chemical penetration.
Eye protection	: Chemical goggles or safety glasses.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Wear appropriate mask.
Environmental exposure controls	: Prevent leakage or spillage.
Other information	: Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: light amber
Odour	: petroleum
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: -36 °C
Boiling point	: > 427 °C
Flash point	: 204 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: 0.88
Relative vapour density at 20 °C	: No data available
Solubility	: Water: 0 %
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: 61 cSt @ 40 °C
Viscosity, dynamic	: 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

Heat.

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10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Thermal decomposition generates : hydrocarbons. Carbon oxides (CO, CO₂). Nitrogen oxides. Phosphorus oxides. Sulphur oxides. Burning produces irritating, toxic and noxious fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Inhalation; Skin and eye contact

Acute toxicity : Not classified

Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)

LD50 oral rat	> 5000 mg/kg
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LD50 dermal rabbit	> 2000 mg/kg
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Zinc alkyl dithiophosphate (68649-42-3)

LD50 oral rat	3100 mg/kg
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LD50 dermal rabbit	> 5000 mg/kg
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ATE US (oral)	3100.000 mg/kg bodyweight
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triphenyl phosphite (101-02-0)

ATE US (oral)	500.000 mg/kg bodyweight
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zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)

LD50 oral rat	3100 mg/kg
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LD50 dermal rabbit	> 5000 mg/kg
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ATE US (oral)	3100.000 mg/kg bodyweight
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Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

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

Symptoms/injuries after eye contact : Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

Zinc alkyl dithiophosphate (68649-42-3)

LC50 fish 1	4.4 mg/l 96 h oncorhynchus mykiss
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EC50 Daphnia 1	1.2 mg/l 48 h
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zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)

LC50 fish 1	46 mg/l
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12.2. Persistence and degradability

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Persistence and degradability	May cause long-term adverse effects in the environment.
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Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment 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. Emptied container retains vapor and product residue.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not considered a dangerous good for transport regulations

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)

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

Zinc alkyl dithiophosphate (68649-42-3)

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

triphenyl phosphite (101-02-0)

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

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)

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

15.2. International regulations

CANADA

Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Zinc alkyl dithiophosphate (68649-42-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.

triphenyl phosphite (101-02-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Zinc alkyl dithiophosphate (68649-42-3)

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)

triphenyl phosphite (101-02-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) (4259-15-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye Dam. 1 H318

Aquatic Chronic 3 H412

Full text of classification categories and H statements : see section 16

National regulations

Distillates (petroleum), solvent-dewaxed heavy paraffinic (DMSO < 3%) (64742-65-0)

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

Zinc alkyl dithiophosphate (68649-42-3)

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)

Not listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

triphenyl phosphite (101-02-0)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Chinese Catalog of Hazardous Chemicals.

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on Taiwan National Chemical Inventory

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the AICS (Australian Inventory of Chemical Substances)

15.3. US State regulations

No additional information available

SECTION 16: Other information

Indication of changes

: Original Document.

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>.

National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.

Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

TSCA Chemical Substance Inventory. Accessed at

<http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

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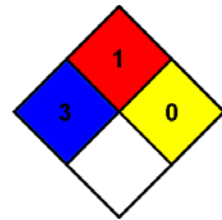
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Abbreviations and acronyms	: ATE: Acute Toxicity Estimate. CAS (Chemical Abstracts Service) number. CFR: Code of Federal Regulations. CLP: Classification, Labelling, Packaging. EC50: Environmental Concentration associated with a response by 50% of 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. TSCA: Toxic Substances Control Act. TWA: Time Weight Average. STEL: Short Term Exposure Limits.
Other information	: None.

Full text of H-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
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
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
Skin Sens. 1B	Sensitisation — Skin, category 1B
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
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	: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard	: 1 - Must be preheated before ignition can occur.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



Redstone SDS US GHS for Viscosity Oil

SDS Prepared by: The Redstone Group, LLC
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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