

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 10/19/2020 Revision date: 12/1/2023 Supersedes: 10/1/2021 Version: 1.2

SECTION 1: Identification			
1.1. Identification			
Product form Product name Product code	: Mixture : Special Duty : 1532		
1.2. Recommended use and restrictions on	use		
Use of the substance/mixture Recommended use	Engine oil additiveLubricants, Greases and Release Products		
1.3. Supplier			
Bardahl Manufacturing Corporation 1400 NW 52nd Street P.O. Box Seattle, WA 98107 USA T 206-783-4851 - F 206-784-3219 www.bardahl.com Contact: Jackie Leung			
1.4. Emergency telephone number			
Emergency number	: 800-424-9300		
SECTION 2: Hazard(s) identification			
2.1. Classification of the substance or mixt	2.1. Classification of the substance or mixture		
GHS-US classification			
GHS-US classification Serious eye damage/eye irritation, Category 1	Causes serious eye damage.		
Serious eye damage/eye irritation, Category 1			
Serious eye damage/eye irritation, Category 1 2.2. GHS Label elements, including precaut GHS US labelling			
Serious eye damage/eye irritation, Category 1 2.2. GHS Label elements, including precaut GHS US labelling Hazard pictograms (GHS US) Signal word (GHS US) Hazard statements (GHS US)	 ionary statements i of the state of the		

2.4. Unknown acute toxicity (GHS US)

No additional information available

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SECTION 3: Composition/information on ingredients 3.1. Substances Not applicable 3.2. Mixtures **Product identifier** Name % **GHS-US classification** Zinc alkyldithiophosphate CAS-No.: 68457-79-4 1 – 5 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411 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 after inhalation : Remove person to fresh air and keep comfortable for breathing. First-aid measures after skin contact · Wash skin with plenty of water. First-aid measures after eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to · do. Continue rinsing. If eye irritation persists: Get medical advice/attention. First-aid measures after ingestion IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed) Symptoms/effects after eye contact : Eye irritation.

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 : Water spray. Dry powder. Foam. Carbon dioxide. 5.2. Specific hazards arising from the chemical Hazardous decomposition products in case of fire : Toxic fumes may be released. 5.3. Special protective equipment and precautions for fire-fighters 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, protect	ve equipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes.
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".

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6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for co	ntainment and cleaning up
Methods for cleaning up Other information	Take up liquid spill into absorbent material.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 stora	ge
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, inc	cluding any incompatibilities

Storage conditions

: Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Special Duty
No additional information available
Zinc alkyldithiophosphate (68457-79-4)
No additional information available
8.2. Appropriate engineering controls
Appropriate engineering controls: Ensure good ventilation of the work station.Environmental exposure controls: Avoid release to the environment.
8.3. Individual protection measures/Personal protective equipment
Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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Personal protective equipment symbol(s):



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
рН	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 216 °C COC 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	: 0.88 g/cm³ typical
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 85 mm²/s @ 100 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

None under recommended storage and handling conditions (see section 7).

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10.5. Incompatible materials

No additional information available

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

	No.6 also a 26 a d
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
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	: 85 mm²/s @ 100 C typical
Symptoms/effects after eye contact	: Eye irritation.

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general	: Harmful to aquatic life with long lasting effects.
12.2. Persistence and degradability	
No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Other adverse effects	
No additional information available	

SECTION 13: Disposal considerations	;
13.1. Disposal methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.

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SECTION 14: Transport information	
In accordance with DOT / TDG / IMDG / IATA	
14.1. UN number	
Not regulated for transport	
14.2. UN proper shipping name	
Proper Shipping Name (DOT) Proper Shipping Name (TDG) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	 Not regulated Not regulated Not regulated Not regulated
14.3. Transport hazard class(es)	
DOT Transport hazard class(es) (DOT)	: Not regulated
TDG Transport hazard class(es) (TDG)	: Not regulated
IMDG Transport hazard class(es) (IMDG)	: Not regulated
IATA Transport hazard class(es) (IATA)	: Not regulated
14.4. Packing group	
Packing group (DOT) Packing group (TDG) Packing group (IMDG) Packing group (IATA)	 Not regulated Not regulated Not regulated Not regulated
14.5. Environmental hazards	
Other information	: No supplementary information available.
14.6. Special precautions for user	
DOT Not regulated	
TDG Not regulated	
IMDG Not regulated	
IATA Not regulated	
14.7. Transport in bulk according to Annex	II of MARPOL 73/78 and the IBC Code
Not applicable	
SECTION 15: Regulatory information	

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

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Name	CAS-No.	Listing	Commercial status	Flags
Zinc alkyldithiophosphate	68457-79-4	Present	Active	

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

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Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
ΙΑΤΑ	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level

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Abbreviations and acronyms		
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

NFPA health hazard NFPA fire hazard NFPA reactivity	 1 - Materials that, under emergency conditions, can cause significant irritation. 1 - Materials that must be preheated before ignition can occur. 0 - Material that in themselves are normally stable, even under fire conditions.
Hazard Rating Health	: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
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 - Safety glasses, Gloves

Safety Data Sheet (SDS), USA

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.