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SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY INFORMATION

Product Name(s): AMALIE BLUE HI TEMP GREASE
 Product Code(s): Not available
 Uses: A petroleum-based lubricant/grease.
 Company: AOCUSA
 Address: 1601 McCloskey Blvd; Tampa FL 33605; USA
 Telephone Number: (813) 248-1988 Fax Number: (813) 248-1488
 Emergency Telephone Number: For Hazardous Materials [or Dangerous Goods] Incident (24 hours/day)
 ChemTel Inc. (800) 255-3924; +1 (813) 248-0585
 Date Issued: July 19, 2019 Date Revised: August 5, 2019

This SDS complies with the OSHA Hazard Communication Standard 29CFR1910.1200 as revised in May 2012 (GHS). It may not meet requirements in other countries.

SECTION 2 HAZARDS IDENTIFICATION

GHS Signal Word: None.
 GHS Classification: Not classified as hazardous
 GHS Hazard Statements: None.
 GHS Precautionary Statements: Prevention: None. Response: None.
Storage: None. Disposal: None.
 Hazards Not Otherwise Classified: None.
 GHS Assessment: Approximately 1 - 2% of this mixture consists of ingredient(s) of unknown acute toxicity.
 Approximately 1 - 2% of the mixture consists of ingredient(s) of unknown hazards to the aquatic environment.

SECTION 3 COMPOSITION / INGREDIENTS

Component	CAS Number	EC Number	Concentration
Petroleum distillates	Mixed	---	75.0 - 95.0%
	<i>Classification: Carc. 1B: H350 (*) Carc. 1B; H350: C ≥ 3.0 % DMSO Repr. 2; H361d: C ≥ 3.0 % DMSO Asp. Tox. 1; H304: Viscosity ≤ 20.5 mm²/s (40°C)</i>		
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	68457-79-4	215-279-6	1.0 - 3.0%
	<i>Classification: Eye Dam. 1: H318; Skin Irrit. 2: H315; Aquatic Chronic 2: H411 Eye Dam. 1; H318: C ≥ 3.0% Skin Irrit. 2; H315: C ≥ 15.0%</i>		
Tri(2-ethylhexyl) borate	2467-13-2	219-581-9	1.0 - 2.0%
	<i>Classification: Eye Irrit. 2A; H319</i>		

Note (*): Components are highly refined and this hazard does not apply.

Other components are either non-hazardous or do not significantly contribute to the hazards of the product.

Trade Secret Claims: Specific chemical identity and/or exact percentage (concentration) of components has been withheld as a trade secret.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4 FIRST AID MEASURES

- First Aid - Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention, if irritation develops.
- First Aid - Skin: In case of contact, flush skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention immediately if irritation develops and/or persists. Wash contaminated clothing before reuse.
- First Aid - Ingestion: If swallowed and feel unwell, immediately call a physician or poison control center. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.
- First Aid - Inhalation: If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.
- Important Symptoms / Effects – Acute and Delayed: Mild tissue inflammation, nausea.
- Advice to Physician: Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

- Extinguishing Media: Treat surrounding material. Water spray, dry chemical, carbon dioxide, or foam is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.
- Specific Hazards: This product is not flammable, but will burn in a fire. This product may give rise to hazardous vapors in a fire. Vapors/fumes may be irritating, corrosive and/or toxic.
- Protective equipment and: Wear full protective clothing and self-contained breathing apparatus.

SECTION 5 FIRE FIGHTING MEASURES

procedures for fire-fighters.

Additional Advice: None.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Procedures: Small spills: Sweep or wipe up spills with an absorbent towel/material and transfer into suitable containers for recovery or disposal. Finally flush area with water/soap or an appropriate solvent, as this product is not appreciably soluble in water alone.

Large spills: Contain spilled material if possible. Sweep, vacuum or pump into suitable and properly labeled containers.

Personal Precautions: Wear suitable protective clothing and equipment.

Environmental Precautions: Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

SECTION 7 HANDLING AND STORAGE

Handling: Wear appropriate personal protection (See Section 8) when handling this material. The work area should be equipped with a safety shower and eye wash station. If exposed to the grease, avoid contact with skin and eyes. Wash thoroughly after handling.

Storage: Keep container(s) tightly closed. Use and store this material at room temperature away from sources of ignition, heat, direct sunlight and hot metal surfaces. Keep away from any incompatible materials (see Section 10).

Additional Advice: Store in original container. Store as directed by the manufacturer.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Standards: Exposure limits are listed below, if they exist.

Petroleum distillates: (as petroleum distillates – naphtha)
 NIOSH REL: 350 mg/m³ TWA.
 NIOSH REL: 1800 mg/m³ STEL.
 OSHA PEL: 500 ppm (2000 mg/m³).
 (as oil mist)
 NIOSH REL: 5 mg/m³ TWA.
 NIOSH STEL: 10 mg/m³ TWA.
 OSHA PEL: 5 mg/m³ TWA.

Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts: ACGIH TLV: 10 mg/m³ TWA.
 UK: 4 mg/m³ TWA (respirable).
 UK: 10 mg/m³ TWA (total inhalable).
 OSHA PEL: 5 mg/m³ TWA (respirable).
 OSHA PEL: 15 mg/m³ TWA (total dust).

Tri(2-ethylhexyl) borate: None.

Engineering Control Measures: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

Respiratory Protection: A NIOSH certified self-contained breathing apparatus or air purifying respirator with an organic cartridge may be used under conditions where airborne concentrations are expected to exceed exposure limits.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Hand Protection:	The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation and skin damage (see glove manufacturer literature for information on permeability).
Eye Protection:	Approved eye protection (safety glasses with side-shields or goggles) to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.
Body Protection:	Impervious clothing should be worn as needed to prevent skin contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Semi-solid
Color:	Blue
Odor:	Mild
Odor Threshold:	Not available.
pH:	Not available.
Melting Point/Range (°C/°F):	Not available.
Boiling Point/Range (°C/°F):	> 200°C / 392°F (based on constituents)
Flash Point (PMCC) (°C/°F):	Not flammable (based on constituents)
Evaporation Rate:	Not available.
Flammability / Explosivity Limits in Air (%):	Not available.
Vapor Pressure:	< 0.075 mmHg (20°C) (based on constituents)
Vapor Density (Air = 1):	Not available.
Relative Density:	0.9 g/cm ³
Solubility in Water:	Insoluble
Partition Coefficient:	Not available.
Autoignition Temperature (°C/°F):	> 250°C / 482°F (based on constituents)
Decomposition Temperature (°C/°F):	Not available.
Viscosity:	> 21 mm ² /s (40°C)
Explosive Properties:	None.
Oxidizing Properties:	None.
Volatile Organic Content (VOC) (g/l):	0 g/l (as defined by 40CFR51.100)

SECTION 10 STABILITY AND REACTIVITY

Reactivity:	Product will not undergo additional reaction.
Stability:	Stable under normal storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Contact with incompatible materials, excessive heat.
Incompatibilities:	Strong oxidizing agents.
Hazardous Decomposition Products:	Oxides of carbon, oxides of phosphorus, oxides of sulfur, metal oxides, aliphatic compounds, toxic by-products.

SECTION 11 TOXICOLOGICAL INFORMATION

If available, toxicity data for the product is given; otherwise component data is listed.

Acute Toxicity:	<p>This product is not expected to be appreciably toxic. (Petroleum distillates) Oral LD50 (rat) > 5000 mg/kg (similar oil); Dermal LD50 (rabbit) > 5000 mg/kg (similar oil); Inhalation LC50 (rat) 2.18 mg/l (4 hr) (aerosol – similar oil) (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) Oral LD50 (rat) 3600 mg/kg; Dermal LD50 (rabbit) > 20 g/kg (Tri(2-ethylhexyl) borate) Oral LD50 (mouse) 3300 mg/kg; Oral LD50 (rat) > 2000 mg/kg; Dermal LD50 (rat) > 2000 mg/kg</p>
Skin Corrosion / Irritation:	<p>The product may be slightly irritating to the skin. (Petroleum distillates) Mildly irritating to skin (rabbit – similar oil). (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) Irritating to skin (rabbit). (Tri(2-ethylhexyl) borate) Slightly irritating to skin (rabbit).</p>
Serious Eye Damage / Irritation:	<p>The product may be slightly irritating to the eyes. (Petroleum distillates) Non-irritating to eyes (rabbit – similar oil). (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) Damaging to eye (rabbit). (Tri(2-ethylhexyl) borate) Irritating to eye (rabbit).</p>
Respiratory or Skin Sensitization:	<p>The product is not expected to be dermally sensitizing. (Petroleum distillates) Not dermally sensitizing (guinea pig – similar oil). (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) Not dermally sensitizing (guinea pig – surrogate compound). (Tri(2-ethylhexyl) borate) Not dermally sensitizing (guinea pig).</p>
Mutagenicity:	<p>This product is not expected to be mutagenic. (Petroleum distillates) Not mutagenic (Ames test, in vitro mammalian chromosome aberration test, mammalian cell gene mutation assay and micronucleus assay – similar oils). (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) Not mutagenic (Ames test, mammalian cell gene mutation assay and micronucleus assay – surrogate compound). (Tri(2-ethylhexyl) borate) Not mutagenic (Ames test, in vitro mammalian chromosome aberration test and micronucleus assay).</p>
Carcinogenicity:	<p>This product is not expected to be carcinogenic. (Petroleum distillates) In a 78 week study in mice by dermal application (0.25 ml dose rate applied once or twice a week), it was shown that there was no carcinogenic potential in sufficiently refined oil. Not classified as to carcinogenicity to humans (IARC – Petroleum solvents). (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) No data. (Tri(2-ethylhexyl) borate) No data.</p>
Reproductive / Developmental Toxicity:	<p>This product is not expected to be reproductively or developmentally harmful. (Petroleum distillates) In dermally-exposed rats at up to 2000 mg/kg/day during gestation, there was no evidence of teratogenicity (NOAEL was determined to be greater than 2000 mg/kg/day). (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) In an oral study in rats, the maternal and fetal NOAEL was 160 mg/kg/day based on no observable effects. (Tri(2-ethylhexyl) borate) No data.</p>
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Single Exposure:	<p>(Petroleum distillates) No data. (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) No data. (Tri(2-ethylhexyl) borate) No data.</p>

SECTION 11 TOXICOLOGICAL INFORMATION

Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Repeated Exposure:	(Petroleum distillates) In a 13-week oral study in rats at up to 500 mg/kg/day, the LOAEL was 125 mg/kg/day based on organ weight changes, reddening/discoloration of organs and atrophy in male sex organs (similar oil). (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) In a 28 day oral study in rats at up to 160 mg/kg/day, there were no significant effects noted. (Tri(2-ethylhexyl) borate) In a 28 day oral study in rats at up to 1000 mg/kg/day, the NOAEL was 450 mg/kg/day based on observed changes to the thyroid and liver.
Aspiration Hazard:	This product does not pose an appreciable aspiration hazard.
Additional Information:	None.

SECTION 12 ECOLOGICAL INFORMATION

If available, ecological data for the product is given; otherwise component data is listed.

Acute Ecotoxicity:	This product is not expected to be appreciably harmful to aquatic species. (Petroleum distillates) LL50 (fathead minnow) > 100 mg/l/96 hr; EL50 (Daphnia magna) > 10000 mg/l/48 hr (similar oil); NOEL (algae) ≥ 100 mg/l/72 hr (similar oil). (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) LL50 (Rainbow trout) 4.5 mg/l/96 hr; EL50 (Daphnia magna) 23 mg/l/48 hr; EL50 (green algae) 21 mg/l/72 hr. (Tri(2-ethylhexyl) borate) LC50 (young Zebra fish) 21.17 mg/l/96 hr; EC50 (Daphnia magna) 2.6 mg/l/48 hr (surrogate compound).
Mobility:	(Petroleum distillates) Not expected to be mobile in soil. (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) Adsorbs to soil and has low mobility (similar compound). (Tri(2-ethylhexyl) borate) No data.
Persistence/Degradability:	(Petroleum distillates) Inherently biodegradable (31% in 28 days). (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) Not readily biodegradable (1.5% in 28 days). (Tri(2-ethylhexyl) borate) Readily biodegradable (74% in 28 days).
Bioaccumulation:	(Petroleum distillates) May contain constituents with the potential to bioaccumulate. (Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts) Not expected to be bioaccumulative (Log Kow < 4.5). (Tri(2-ethylhexyl) borate) No data.
Other adverse effects:	None.

SECTION 13 DISPOSAL CONSIDERATION

Environmental precautions:	Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.
Product Disposal:	Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.
Container Disposal:	Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

SECTION 14 TRANSPORT INFORMATION

DOT (US):

Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packaging Group:	None.
Reportable Quantity:	None.
Marine Pollutant:	None.

IATA:

Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packing Group:	None.

IMDG:

Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packing Group:	None.
Marine Pollutant:	None.

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.

SECTION 15 REGULATORY INFORMATION

US Toxic Substance Control Act:	All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
Canadian Domestic Substance List:	All components of this product are listed on the Canadian Domestic Substance List.
EU REACH:	All components of this product have been pre-listed or registered under REACH.
TSCA Sec.12(b) Export Notification:	This product does not contain a chemical at or above de minimis concentrations which requires reporting.
Canadian WHMIS Classification:	None. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.
Massachusetts Right-To-Know:	This product contains materials subject to disclosure under the Massachusetts Right-To-Know Law: - Petroleum distillates
New Jersey Right-To-Know:	This product contains materials subject to disclosure under the New Jersey Right-To-Know Law: - Petroleum distillates - Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (4001) (as zinc compound)

SECTION 15 REGULATORY INFORMATION

Pennsylvania Right-To-Know:	This product contains materials subject to disclosure under the Pennsylvania Right-To-Know Law: - Petroleum distillates - Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (as zinc compound)
California Proposition 65:	This product contains materials which the State of California has found to cause cancer, birth defects or other reproductive harm: - Naphthalene (trace) - Carbon-black extracts (< 25 ppb)
SARA TITLE III-Section 311/312 Categorization (40 CFR 370):	None. (as of 2018, the EPA has adopted GHS hazard classifications)
SARA TITLE III-Section 313 (40 CFR 372):	This product contain materials which are listed in Section 313 at or above de minimis concentrations: - Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (as zinc compound)
CERCLA Hazardous Substance (40 CFR 302)	This product contains materials subject to reporting under CERCLA and Section 304 of EPCRA: - Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (as zinc compound)
Water Hazard Class (WGK):	This product is slightly water-endangering (WGK=1).
Other Chemical Inventories:	Australia (AICS): All components are listed. China (IECSC): All components are listed. Japan (ENCS): One or more components are not listed Korea (KCI): All components are listed. Philippines (PICCS): All components are listed. Taiwan (TCSI): All components are listed.

SECTION 16 OTHER INFORMATION

NFPA Rating - HEALTH:	1
NFPA Rating - FIRE:	1
NFPA Rating - REACTIVITY:	0
NFPA Rating - SPECIAL:	NONE
Full text of H-Statements referred to under Section 3:	
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H411	Toxic to aquatic life with long lasting effects
SDS Date Issued:	July 19, 2019
SDS Current Version:	1.1
Version Date:	August 5, 2019

SECTION 16 OTHER INFORMATION

SDS Revision History:	v1.0 Initial version. v1.1 Revised classification based on additional cut-off data (Sections 2 & 3).
Abbreviations:	<p>GHS: Globally Harmonized System of Classification and Labeling of Chemicals</p> <p>CAS#: Chemical Abstract Services Number</p> <p>ACGIH: American Conference of Governmental Industrial Hygienists</p> <p>OSHA: Occupational Safety and Health Administration</p> <p>NFPA: National Fire Protection Association</p> <p>DOT: US Department of Transportation</p> <p>RCRA: US Resource Conservation and Recovery Act</p> <p>TLV: Threshold Limit Value TWA: Time-Weighted Average</p> <p>PEL: Permissible Exposure Limit</p> <p>STEL: Short Term Exposure Limit</p> <p>WEEL: Workplace Environmental Exposure Levels</p> <p>AIHA: American Industrial Hygiene Association</p> <p>NTP: National Toxicology Program</p> <p>IARC: International Agency for Research on Cancer</p> <p>LD50: Lethal Dose 50%</p> <p>LC50: Lethal Concentration 50%</p> <p>NOAEL: No Observed Adverse Effect Level</p> <p>NOEL: No Observed Effect Level</p> <p>EC50: Effective Concentration 50%</p> <p>LL50: Lethal Loading Rate 50%</p> <p>BCF: Bioconcentration Factor</p> <p>BOD: Biological Oxygen Demand</p> <p>Koc: Soil Organic Carbon Partition Coefficient.</p> <p>Tlm: Median Tolerance Limit</p>
Key References:	<p>United States National Library of Medicine's TOXNET</p> <p>Patty's Toxicology, 5th Edition</p> <p>European Commission's Institute for Health and Consumer Protection</p> <p>European Chemicals Agency (ECHA)</p> <p>American Conference of Governmental Industrial Hygienists</p> <p>International Agency for Research on Cancer</p> <p>United States National Toxicology Program</p> <p>United States Occupational Safety and Health Administration</p> <p>United States Department of Transportation</p> <p>Supplier Material Safety Data Sheets</p>
Disclaimer:	<p><i>The data contained herein is based on information that the company believes to be reliable, but no expressed or implied warranty is made with regard to the accuracy of such data or its suitability for a given situation. Such data relates only to the specific product described and not to such products in combination with any other product and no agent of the company is authorized to vary any of such data. The company and its agents disclaim all liability for any action taken or foregone on reliance upon such data.</i></p>
Prepared by:	ChemOne Compliance, LLC