



BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

Safety Data Sheet

Section 1: Chemical Product and Company Identification

Material Name:	BOSS Fast Flow Hydraulic Oil 22, 32, 46, 68
Product Use:	For lubricating hydraulic systems. If these products are used in combination with other products, refer to the Safety Data Sheets for those products.
Synonyms:	Petroleum oil; Lube oil; Petroleum hydrocarbon; Lubricant.
Restrictions on Use:	None known.
Manufacturer:	
BOSS Lubricants	Phone: 1-403-279-2223
6303 30 Street SE	Emergency # 1-800-844-9457
Suite 112	www.bosslubricants.com
Calgary, AB T2C 1R4	
Issue Date:	August 01, 2018
Supersedes Issue Date:	August 01, 2015
Original Issue Date:	April 22, 1993

Section 2: Hazardous Identification

Classification in Accordance with 29 CFR 1910.1200.: Not hazardous according to classification criteria.

GHS LABEL ELEMENTS

Symbol(s):	None needed according to classification criteria.
Signal Word:	None needed according to classification criteria.
Hazard Statement(s):	None needed according to classification criteria.
<u>Precautionary Statement(s)</u>	
Prevention:	None needed according to classification criteria.
Response:	None needed according to classification criteria.
Storage:	None needed according to classification criteria.
Disposal:	Dispose of in accordance with all applicable federal, state and local regulations.
Hazard(s) Not Otherwise Classified:	Repeated exposure may cause skin dryness or cracking. May be harmful if swallowed. May irritate eyes.

POTENTIAL HEALTH EFFECTS

Inhalation (Breathing):	These products are not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating these products, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat, and lungs).
Eyes:	May cause irritation.
Skin:	May cause irritation. Not likely to be absorbed through the skin in harmful amounts.
Ingestion (Swallowing):	May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.



BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

Medical Conditions Aggravated by Exposure: Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

Chronic: Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

Cancer Information: No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENICITY**. Also see **SECTION 15: CALIFORNIA**.

Environmental Hazards: Not available. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

Section 3: Composition / Information on Ingredients

CAS	Component	Percent
64742-58-1	Lubricating oils, petroleum, hydrotreated spent	14-99
64741-88-4	Petroleum distillates, solvent-refined heavy paraffinic	0-85*
64742-57-0	Residual oils (petroleum), hydrotreated	0-85*
64742-62-7	Residual oils (petroleum), solvent dewaxed	0-100*
64742-01-4	Residual oils (petroleum), solvent refined	0-85*
68649-42-3	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	0.1-2
8042-47-5	Mineral Oil	0.1-1

Component Related Regulatory Information

*Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

Section 4: First Aid Measures

Inhalation (Breathing): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

Eyes: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

Skin: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists. If products are injected under pressure into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, a physician should immediately evaluate the individual as a medical emergency. Wash contaminated clothing before reuse.

Ingestion: Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

Important Symptoms/Effects

Acute: No information on significant adverse effects.



BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

Delayed: No information on significant adverse effects.
Notes to Physicians: Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-844-9457 for additional information.

Section 5: Fire Fighting Measures

Hazardous Combustion Products: Decomposition and combustion materials may be toxic. Burning may produce aldehydes, hydrogen sulfide, alkyl mercaptans, sulfides, nitrogen oxides, phosphorus oxides, sulfur oxides, carbon monoxide, and unidentified organic compounds.

Specific Hazards Arising from the Chemical: Negligible fire hazard. Avoid friction, static electricity and sparks.

Suitable Extinguishing Media: Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Unsuitable Extinguishing Media: Do not use high-pressure water streams. Water or foam may cause frothing.

Protective Equipment for Firefighting: A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Fire Fighting Equipment/Instructions: Move container from fire area if it can be done without risk. Keep storage containers cool with water spray. Heated containers may rupture or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact.

NFPA Ratings:		Hazard Scale:
Health:	1	0 = Minimal
Fire:	1	1 = Slight
Reactivity:	0	2 = Moderate
		3 = Serious
		4 = Severe

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Methods and Materials for Containment and Clean Up: Remove all ignition sources. Do not touch or walk through spilled products. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery or absorb with compatible sorbent material and shovel with a clean, spark proof tool into a sealable container for disposal. Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.





BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see Section 15: Regulatory Information.

Section 7: Handling and Storage

Safe Handling Procedures:	Keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. These products have a low vapor pressure and are not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating these products, do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.
Shipping and Storing:	Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.
Incompatibilities:	Strong oxidizing materials.

Section 8: Exposure Controls / Personal Protection

Component Exposure Limits:	ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.
Engineering Controls:	Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.
Personal Protective Equipment	
Respiratory:	Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.
Eyes/Face:	Where eye contact is likely, wear safety glasses; contact lens use is not recommended.
Skin:	Where skin contact is likely, wear neoprene, nitrile, or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended. When product is heated and skin contact is likely, wear heatresistant gloves, boots, and other protective clothing. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.



BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

- Personal Hygiene:** Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard leather articles, such as shoes, saturated with these products.
- Other Personal Protective Equipment:** Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

Section 9: Physical & Chemical Properties

Appearance:	Amber, red, green, or blue liquid;	pH:	Not applicable
Odor:	petroleum odor.	Boiling Point:	475°F (246°C) (minimum)
LFL:	Not available	Solubility (H2O):	Insoluble
UFL:	Not available	Vapor Pressure:	Less than 0.1 mm Hg at 68°F (20°C)
Specific Gravity:	0.88 (water = 1) (approximately)	Physical State:	Liquid
Octanol/H2O Coeff.:	Not available	Density:	7.3 LB/US gal (880 g/L) (approximately)
Molecular Weight:	Not applicable	Evaporation Rate:	Not available
Auto Ignition:	Not available.	Odor Threshold:	Not available
Vapor Pressure:	Less than 0.1 mm Hg at 68°F (20°C)	Pour Point:	-6°C (21°F) (maximum)
Flash Point:	356°F (180°C) (minimum) Cleveland Open Cup		
Melting Point:	Not available [pour point 21°F (-6C) (maximum)]		

Section 10: Chemical Stability & Reactivity Information

- Reactivity:** No reactivity hazard is expected.
- Chemical Stability:** Stable under normal temperatures and pressures.
- Possibility of Hazardous Reactions:** Will not polymerize.
- Incompatibility:** Avoid oxidizing agents, reducing agents, and/or acids.
- Hazardous Decomposition Products:** None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.**
- Conditions to Avoid:** Avoid heat, sparks, or flame when not in use.

Section 11: Toxicological Information

Toxicity Data

Component Analysis - LD50/LC50

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)

Oral LD50:	Rat >2000 mg/kg;
Dermal LD50:	Rat >2000 mg/kg;
Dermal LD50:	Rabbit >4480 mg/kg





BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

Petroleum distillates, solvent-refined heavy paraffinic (64741-88-4)

Inhalation LC50: Rat 2.18 mg/L 4 h;
Oral LD50: Rat >5000 mg/kg;
Dermal LD50: Rabbit >2000 mg/kg

Residual oils (petroleum), solvent refined (64742-01-4)

Inhalation LC50: Rat 2.18 mg/L 4 h;
Oral LD50: Rat >5000 mg/kg;
Dermal LD50: Rabbit >2000 mg/kg

Residual oils (petroleum), solvent dewaxed (64742-62-7)

Inhalation LC50: Rat 2.18 mg/L 4 h;
Oral LD50: Rat >5000 mg/kg;
Dermal LD50: Rabbit >2000 mg/kg

Mineral Oil (Proprietary)

Oral LD50: Mouse 22 g/kg (related to Oil mist, mineral)

Information on Likely Routes of Exposure

Inhalation: No information on significant adverse effects.
Ingestion: May be harmful if swallowed.
Skin Contact: Repeated exposure may cause skin dryness or cracking.
Eye Contact: No information on significant adverse effects.
Immediate Effects: No information on significant adverse effects.
Delayed Effects: No information on significant adverse effects.
Irritation/Corrosivity: May cause slight skin and respiratory irritation.
Respiratory Sensitization: No information available for the product.
Skin Sensitization: Based on best current information, there is no known human sensitization associated with these products.
Component Carcinogenicity: None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.
Mutagenicity: Experimental evidence suggests that these products do not cause mutagenesis.
Reproductive Toxicity: Based on best current information, there is no known reproductive toxicity associated with these products.

Specific Target Organ Effects

Single Exposure: No information on significant adverse effects.
Repeated Exposure: No information on significant adverse effects.
Aspiration Hazard: No data available.
Teratogenicity: Based on best current information, there is no known teratogenicity associated with these products.
Toxicologically Synergistic Products: Based on best current information, there are no known toxicologically synergistic products associated with these products. Also see **SECTION 15: CALIFORNIA**.



BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

Section 12: Ecological Information

Ecotoxicity: Toxic to aquatic life.

Component Analysis - Ecotoxicity - Aquatic Toxicity

Lubricating oils, petroleum, hydrotreated spent (64742-58-1)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Brachydanio rerio	79.6 mg/L [semi-static]	
96 Hr LC50 Pimephales promelas	3.2 mg/L [semi-static]	

Petroleum distillates, solvent- refined heavy paraffinic (64741-88-4)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Oncorhynchus mykiss	>5000 mg/L	

Residual oils (petroleum), solvent refined (64742-01-4)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Oncorhynchus mykiss	>5000 mg/L	

Residual oils (petroleum), solvent dewaxed (64742-62-7)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Oncorhynchus mykiss	>5000 mg/L	

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	1.0 - 5.0 mg/L [static]	
96 Hr LC50 Pimephales promelas	10.0 - 35.0 mg/L [semi-static]	

Persistence/Degradability:

May cause long-term adverse effects in the aquatic environment.

Bioaccumulation/Accumulation:

No data available for this product.

Mobility in Environmental Media:

No information available for the product.

Other Adverse Effects:

No additional information available.

Section 13: Disposal Considerations

Disposal Instructions:

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Boss Lubricants regarding proper recycling or disposal.

US EPA Waste Number & Descriptions:

These products, if discarded, are not expected to be a characteristic or listed hazardous waste. If recycled in the USA, they can be managed in accordance with the used oil exemption under 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of these products.





BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

Section 14: Transportation Information

Basic Description:	Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO).
<u>DOT</u>	
Proper Shipping Name:	Not regulated for transport.
UN Number:	Not regulated for transport.
Hazard Class:	Not regulated for transport.
Packing Group:	Not regulated for transport.
<u>TDG</u>	
Proper Shipping Name:	Not regulated for transport.
UN Number:	Not regulated for transport.
Hazard Class:	Not regulated for transport.
Packing Group:	Not regulated for transport.
<u>IMDG</u>	
Proper Shipping Name:	Not regulated for transport.
UN Number:	Not regulated for transport.
Hazard Class:	Not regulated for transport.
Packing Group:	Not regulated for transport.
Marine Pollutant:	Not regulated for transport.
<u>IATA</u>	
Proper Shipping Name:	Not regulated for transport.
UN Number:	Not regulated for transport.
Hazard Class:	Not regulated for transport.
Packing Group:	Not regulated for transport.
International Bulk Chemical Code:	This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Section 15: Regulatory Information

SARA 302/304

Component Analysis: Based on the ingredient(s) listed in SECTION 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA Sections 311/312

Acute Health:	No
Chronic Health:	No
Fire:	No
Reactive:	No





BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

SARA Section 313

Component Analysis: This product does contain a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

>1.0 % de minimis concentration (Chemical Category N982, related to Zinc compounds)

CERCLA

Component Analysis: Based on the ingredient(s) listed in SECTION 3, this product does not contain any "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

TSCA Inventory: All the components of these products are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

Component Analysis

Component	CAS #	TSCA
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	Yes
Residual oils (petroleum), hydrotreated	64742-57-0	Yes
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	Yes
Residual oils (petroleum), solvent refined	64742-01-4	Yes
Residual oils (petroleum), solvent dewaxed	64742-62-7	Yes
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	Yes

Canadian Regulations: These products have been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all information required by the CPR.

Component Analysis:

Component	CAS #	CAN
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	DSL
Residual oils (petroleum), hydrotreated	64742-57-0	DSL
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	DSL
Residual oils (petroleum), solvent refined	64742-01-4	DSL
Residual oils (petroleum), solvent dewaxed	64742-62-7	DSL
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	DSL

Canadian WHMIS Information: Not regulated.

Canadian Environmental Protection Act (CEPA): All the components of these products are listed on/or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).





BOSS FAST FLOW HYDRAULIC OIL 22, 32, 46, 68 SDS

Section 16: Other Information

Issue Date: August 01, 2018

Supersedes Issue Date: August 01, 2015

Revision Information: SDS Expiry

Key/Legend

ACGIH: American Conference of Governmental Industrial Hygienists	IMDG: International Maritime Dangerous Goods
AIHA: American Industrial Hygiene Association	IUCLID: International Uniform Chemical Information Database
BOD: Biochemical Oxygen Demand	NFPA: National Fire Protection Association
°C: Celsius	NIOSH: National Institute for Occupational Safety and Health
CAS: Chemical Abstracts Service	NTP: National Toxicology Program
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act	OSHA: Occupational Safety and Health Administration
CFR: Code of Federal Regulations	PEL: Permissible Exposure Limit
CPR: Controlled Products Regulations	RTK: Right-to-Know
DOT: United States Department of Transportation	SARA: Superfund Amendments and Reauthorization Act
DSL: Domestic Substances List	STEL: Short-term Exposure Limit
EPA: Environmental Protection Agency	TDG: Transportation of Dangerous Goods
°F: Fahrenheit	TLV: Threshold limit value
GHS: Globally Harmonized System of Classification and Labeling of Chemicals	TSCA: Toxic Substances Control Act
HMIS: Hazardous Materials Identification System	TWA: Time weighted average
IARC: International Agency for Research on Cancer	UN: United Nations
IATA: International Air Transportation Association	WHMIS: Workplace Hazardous Materials Information System
IDLH: Immediately Dangerous to Life or Health	

Disclaimer This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

