SAFETY DATA SHEET

Issuing Date 10- Aug-23 **Revision date** 10- Aug-23 **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Material Name Boss Fast Flow Hydraulic Oil 22, 32, 46, 68

Other means of identification

Product Code(s) GHSRBS-126

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

Details of the supplier of the safety data sheet

Initial supplier identifier	**Manufacturer Address**
BOSS Lubricants	6303 30 ST SE Calgary, AB T2C 1R4

Emergency telephone number

Initial supplier phone number (800) 844-9457

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification in accordance with Schedule 1 of Canada's Hazardous Products Regulations (HPR) (SOR/2015-17) and paragraph (d) of 29 CFR 1910.1200 in the United States

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

Precautionary Statement(s)

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 The 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 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.

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Residual oils (petroleum), solvent dewaxed	64742-62-7	21 - 99	-	
Residual oils (petroleum), hydrotreated	64742-57-0	0 - 85	-	
Petroleum distillates, solvent-refined heavy paraffinic	64741-88-4	0 - 85	-	
Petroleum Distillate	NOT AVAILABLE	0.1 - 1	-	
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	4.5 - 99	-	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	0.1 - 1	-	
Lubricating oils (petroleum), C>25 hydro treated bright stock	72623-83-7	0 - 85	-	

Alkyl phenol	NOT AVAILABLE	0.1 - 1	-	

If CAS number is “proprietary”, the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with the victim. Get medical attention if breathing difficulty persists.

Eye contact If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Skin Wash with plenty of soap and water while removing all contaminated clothes and shoes. Get medical attention, if needed. 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. 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.

Most important symptoms and effects, both acute and delayed

Acute No information on significant adverse effects

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.

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 monoxides, 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 fire-fighters 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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal precautions	Use personal protective equipment as required. See section 8 for more information.

Methods and material for containment and cleaning up.

Methods for containment	Stop leak if you can do it without risk. Keep out of drains, sewers, ditches, and waterways. Ventilate the area. Avoid breathing vapors or mists.
Methods for cleaning up	Cover liquid spill with sand, earth, or other non-combustible absorbent material. Prevent product from entering drains.

7. HANDLING AND STORAGE

Precautions for safe handling	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 storage	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

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	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.
Eye/Face	Where eye contact is likely, wear safety glasses; contact lens 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 heat-resistant gloves, boots, and other protective clothing. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant face shield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Amber, red, green, or blue liquid
Odor	Petroleum odor
Odor threshold	No information available

Property	**Values**	**Remarks**
pH	No data available	None known
Melting point/freezing point	No data available	None known
Boiling point/boiling range	475°F (246°C)(minimum)	None known
Boiling point range	No data available	None known
Freezing point	No data available	None known
Evaporation Rate	No data available	None known
Flash point	356°F(180°C)(min)	ASTM D92
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability or explosive Limits	No data available	None known
Lower flammability or explosive Limits	No data available	None known
Vapor Pressure	less than 0.1 mm Hg@ 68°F(20°C)	ASTM D323
Vapor Density	No data available	None known
Density	No data available	None known
Relative Density (@ 15°C)	No data available	None known
Specific Gravity(water=1)	0.88 (water=1)(approx.)	ASTM D792-20
Solubility	Insoluble	None known
n-Octanol/		

Water Partition coefficient	No data available	None known
Pour point	-6°C (21°F)(maximum)	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Viscosity	No data available	None known
Dynamic Viscosity	No data available	None known

Other information

Explosive Properties	No information available
Oxidizing Properties	No information available
Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY

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.

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

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 >5000 mg/kg
Dermal LD50	Rabbit >2000 mg/kg

Mineral Oil (Proprietary)

Oral LD50	Mouse 22g/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 toxicity

Single exposure	No information on significant adverse effects.
Repeated exposure	No information on significant adverse effects.
Aspiration hazard	There is 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.

12. ECOLOGICAL INFORMATION

Ecotoxicity Toxic to aquatic life

Component Analysis-Ecotoxicity-Aquatic toxicity

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

Duration/Test/Species	Concentration/Conditions
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) **Notes**

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

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

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

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

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

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

Duration/Test/Species	Concentration/Conditions
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 and degradability May cause long-term adverse effects in the aquatic environment.

Bio-accumulative potential There is no data available.

Mobility in Environmental Media No information available for the product.

Other adverse effects No additional information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

Transport Canada Not regulated

TDG Not regulated

DOT Not regulated

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer	Not applicable
The Stockholm Convention on Persistent Organic Pollutants	Not applicable
The Rotterdam Convention	Not applicable

Internal Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

Legend:
TSCA - Unites States Toxic Substances Control Act Section 8(b) inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

16. OTHER INFORMATION

NFPA	**Health hazards**	0	**Flammability**	1	**Instability**	0	**Physical and chemical properties**	-
HMIS	**Health hazards**	0	**Flammability**	1	**Physical hazards**	0	**Personal protection**	X

Key or legend to abbreviations and acronyms used in the safety data sheet.

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

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Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Data for Regulatory Rules

Region	Template name	Revision Note
Canada	HGHS	2.0

GHS Product Information

Physical state	Liquid
Flash point °C -	356°F (180°C) (minimum) Cleveland open cup
Boiling point / boiling range °C	475°F (246°C) (minimum)

Component Information

Canada

GHS Classification

Hazard Statement	None
Signal word	None
Precautionary Statements - Disposal	Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable