

1. 1. PRODUCT AND COMPANY IDENTIFICATION

Material Name	Boss DEF
<u>Other means of identification</u>	
Product Code(s)	GHSRBS-138
Product use	Diesel exhaust fluid
Synonyms	Synthetic blend petroleum oil; lube oil; petroleum hydrocarbon; lubricant.
Restrictions on use	No information available
<u>Details of the supplier of the safety data sheet</u>	
<u>Initial supplier identifier</u>	<u>Manufacturer Address</u>
BOSS Lubricants	6303 30 ST SE Calgary, AB T2C 1R4
<u>Emergency telephone number</u>	
Initial supplier phone number	(800) 844-9457
Emergency Telephone	Chemtrec 1-800-424-9300

Section 2: HAZARD IDENTIFICATION

Classification Not a hazardous substance or mixture according to the Globally Harmonized System (GHS). Not a hazardous substance or mixture according to Canada's Hazardous Product Regulations.

Hazard pictograms:

Warning: Causes skin irritation. Causes eye irritation. Harmful if swallowed.

Prevention: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe mists. Use proper personal protective equipment.

Response

IF ON SKIN: Wash hands thoroughly after handling

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists: Get medical attention.

IF SWALLOWED: Call a doctor/physician if you feel unwell. Rinse mouth.

Storage: Store in a cool dry place out of sunlight between 12 deg. F (11 deg C) and 86 deg F (30 deg C)

Disposal: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**COMPONENT**

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Urea	57-13-6	31.8-33.2	-	
Water	7732-18-5	66.3-67.7	-	

Section 4: FIRST AID MEASURES

Inhaled:	Remove to fresh air. Give artificial respiration if not breathing. Get immediate medical attention.
Eye contact:	Immediately flush eyes with lots of running water for 15 minutes, lifting the upper and lower lids occasionally. If eye irritation persists, get medical advice or attention.
Skin contact:	Immediately wash skin with soap and water. Remove contaminated clothing and shoes; wash before re-use. If irritation persists, get medical advice or attention.
Ingestion:	Do not induce vomiting. If conscious give 2 glasses of water or milk. Get medical advice or attention if you feel unwell or are concerned. Do not give anything by mouth to an unconscious or convulsing person.
First-aid Comments	Get medical advice or attention if you feel unwell or are concerned.

Section 5: FIRE FIGHTING MEASURES**Extinguishing Media**

Suitable Extinguishing Media Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media None known.

Specific Hazards Arising from the Product Does not burn. This product presents no unusual hazards in a fire situation. Closed container may rupture violently when heated releasing contents. In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides.

Special Protective Equipment and Precautions for Fire-fighters Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal precautions	Wear personal protective clothing and equipment, see Section 8.
Methods and material for containment and cleaning up	Remove all ignition sources. Do not touch or walk-through spilled product. Stop leak if you can do it without risk. 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. Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, spark proof tool into a sealable container for disposal.

Section 7: HANDLING & STORAGE

Handling and Storage Precautions:	Store in a cool dry place out of sunlight between 12 deg. f(11°C) and 86° F (30°C)
Other precautions:	Caution! Contact with eyes, skin and mucous membranes may cause irritation. Avoid contact with eyes, skin and clothing Avoid breathing mist or dust Use with adequate ventilation
Repair and Maintenance Precautions:	Do not cut, grind, weld, or drill on or near containers.
Other Precautions:	Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full. Contact with aluminum parts in a pressurizable fluid system may cause violent reactions. Consult equipment supplier for further information.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Component Exposure limits	Canada, OSHA, NIOSH, and ACGIH have not developed exposure limits for any of this product's components.
Appropriate engineering controls	Provide general ventilation. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls.
<u>Individual Protection Measures, such as Personal Protective Equipment</u>	
Respiratory protection	A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified industrial hygienist or safety professional for respirator selection guidance.
Eye/Face protection	Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear safety glasses with side-shields. Avoid contact with eyes. Eye wash fountain and emergency showers are recommended. Contact lens use is not recommended.
Glove recommendations	Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber or equivalent gloves is not recommended. 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.

Protective Materials

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: safety glasses, gloves, and lab coat or apron.

Section 9: CHEMICAL AND PHYSICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Color	Clear
Odor	N/A
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	No data available	None known
Melting point/freezing point	No data available	None known
Boiling point/boiling range	106°C/223°F (min)	ASTM D7213
Freezing point	No data available	None known
Evaporation Rate	Water Vapor	None known
Flash point	No data available	None known
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	Water Vapor	None known
Vapor Density	Water Vapor	None known
Relative gravity	No data available	None known
Density	No data available	None known
Volatility	No data available	None known
Relative Density (@ 15°C)	No data available	None known
Specific Gravity(water=1)	1.087 Kg/M3	None known
Water Solubility n-Octanol/	Complete	None known
Water Partition coefficient	No data available	None known
Pour point	No data available	None known
Decomposition temperature	No data available	None known
<u>Other information</u>		
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	

Section 10: STABILITY AND REACTIVITY

Stability	Stable
Polymerization	Will not occur
Conditions to avoid	Heating above 266°F
Materials to avoid	Sodium Nitrite, Phosphorus Pentachloride, and nitrosylperchlorate. May React with nitrates, alkalis, oxidizing agents, hypochlorite, aldehydes, inorganic acids, alkenes and polymerizable esters. Corrosive to copper and copper alloys.
Hazardous Decomposition Products	Above 266°F decomposition starts with formation of ammonia, cyanuric acid, cyanic acid, carbon dioxide, biuret, and nitrogen oxides.

Section 11: TOXICOLOGICAL INFORMATION

Urea:	No data available
Oral:	Rat LD50 = 14,300-15,000 mg/kg
Dermal:	No data available
Inhalation:	No data available

Section 12: ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product

Section 13: DISPOSAL INFORMATION

Disposal methods:	Dispose of contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state, and local regulatory agencies to ascertain proper disposal procedures.
Note:	Empty containers can have residues, gases, and mists and are subject to proper waste disposal as above.

Section 14: TRANSPORTATION INFORMATION

Transport Canada	Not regulated
TDG	Not regulated
DOT	Not regulated

Section 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

Section 16: OTHER INFORMATION

<u>NFPA</u>	Health hazards	0	Flammability	1	Instability	0	Physical and chemical properties	-
<u>HMIS</u>	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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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

2. Data for Regulatory Rules

Region	Template name	Revision Note
Canada	HGHS	2.0

GHS Product Information

Physical state Liquid
 Boiling point °C 106 (minimum)

Component Information

Canada

GHS Classification

Hazard Statement None needed according to classification criteria.
 Signal word Irritant
 Precautionary Statements - Disposal Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

