

# **BOSS LUBRICANTS: MATERIAL SAFETY DATA SHEET**

## **1. Product and Company Identification**

<b>DATE PREAPRED:</b>	01/01/2012
<b>Product Name:</b>	<b>RHT BASE OILS 85, 100, 150</b>
<b>Synonyms:</b>	Petroleum oil; Lube oil; Petroleum hydrocarbon; Lubricant
<b>Prefix Code:</b>	Prefix 08
<b>Product Use:</b>	Paraffinic base oils for formulating lubricants and process products. If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.
<b>Manufacturer:</b>	<b>BOSS LUBRICANTS</b> 112, 6303 - 30 Street SE Calgary, AB Canada T2C 1R4
<b><u>In case of emergency:</u></b>	<b>BOSS LUBRICANTS</b> 800-844-9457
<b>Transportation (Spill):</b>	800-468-1760 (USA) 613-996-6666 (CANADA)
<b>Poison Control:</b>	Consult local telephone directory for Emergency number (s).

## **2. Composition/Information on Ingredients**

<b>WT%</b>	<b>NAME</b>	<b>SYNONYM</b>	<b>CAS NO</b>	<b>TWA</b> mg/m <sup>3</sup>	<b>STEL</b> mg/m <sup>3</sup>	<b>TWA</b>	<b>STEL</b>	<b>LD<sup>a</sup></b>	<b>LC</b>
0 to 100	Lubricating oils, Petroleum hydrocarbon, solvent-dewaxed	Hydrotreated paraffinic base oil	64742-58-1	5	N.Av.	5	10	N.Av.	N.Av.
0 to 85	Residual oils (petroleum), solvent-dewaxed	Bright stock	64742-62-7	5	N.Av.	5	10	>1000	N.Av.
0 to 85	Residual oils (petroleum), hydro treated	Bright stock	64742-57-0	5	N.Av.	5	10	N.Av.	N.Av.
0 to 85	Lubricating oils petroleum C>25 hydrocarbon, solvent-dewaxed	Bright stock	72623-83-7	5	N.Av.	5	10	>5000	N.Av.

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(composition cont'd)

N.Av. = Not available

<sup>a</sup>Oral-Rat LD50(mg/kg)

Skin-Rabbit LD50 is greater than 2000 mg/kg

Inhalation LC

Ski-Rabbit LD50 is greater than 3000 mg/kg

Based on Oil mist, mineral.

Notice of Intended Changes: Value to be eliminated

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

## **3. Hazards Identification**

### **EMERGENCY OVERVIEW**

#### **APPEARANCE**

Liquid, amber, petroleum odor

#### **CAUTION!**

#### **HEALTH HAZARDS**

May irritate the respiratory tract (nose, throat and lungs), eye and skin.

#### **POTENTIAL HEALTH EFFECTS**

**Inhalation:** This product is not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, 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 cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause injury and possible death.

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

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(Potential health effects cont`d)

**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: MUTAGENICITY and CARCINOGENICITY.**

Also see **SECTION 15: CALIFORNIA.**

## **POTENTIAL ENVIRONMENTAL EFFECTS**

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

## **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 tepid (below 100°F (38°C)) water, holding eyelids apart, for 15 minutes. Get medical attention.

**Skin:** Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists. If product is 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.

**Ingestion:** Immediately get medical attention. Call medical emergency telephone number (see **SECTION 1**) for additional information. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.

**Note To: Physicians** Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call medical emergency telephone number (see **Section1**) for additional information.

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## **5. Fire Fighting Measures**

<b>Flash Point:</b>	302°F (150°C) (minimum) Cleveland Open Cup
<b>Flammable Limits In Air:</b>	<b>Lower:</b> Not available <b>UPPER:</b> Not available
<b>Autoignition Temperature:</b>	Not available
<b>Hazardous Combustion Products:</b>	Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.
<b>Conditions of Flammability:</b>	Heat , sparks, or flame. Product may burn, but does not ignite readily.
<b>Extinguishing Media:</b>	Carbon dioxide, regular foam, dry chemical, water spray, or water fog. Water or foam may cause frothing.
<b>NFPA 704 Hazard Identification:</b>	This information is intended solely for the use of individuals trained in this system.

<b>HEALTH HAZARD (BLUE)</b>	<b>1</b>
<b>FIRE HAZARD (RED)</b>	<b>1</b>
<b>SPECIFIC HAZARD (WHITE)</b>	
<b>REACTIVITY (YELLOW)</b>	<b>0</b>

<b>Fire Fighting Instructions:</b>	Keep storage containers cool with water spray. A positive-pressure, self contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.
<b>Fire and Explosion Hazards:</b>	Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Not sensitive to mechanical impact or static discharge.

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## **6. Accidental Release Measures**

Remove all ignition sources. Do not touch or walk through spilled product. 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 waters and sewers. Contain spill as a liquid for possible recovery or sorb with compatible sorbent material and shovel with a clean tool into a sealable container for disposal.

Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

There may be specific regulatory reporting requirements associated with spills, leaks, or releases of these products. Also see **SECTION 15: REGULATORY INFORMATION**.

## **7. Handling and Storage**

**Handling:** Keep away from heat, 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 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** 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.

## **8. Exposure Controls/Personal Protection**

**Engineering** Provide general ventilation needed to maintain concentration of vapor or mist below applicable limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

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(exposure controls cont`d)

## **PERSONAL PROTECTIVE EQUIPMENT**

<b>Respiratory Protection</b>	Use combination P-or R-series particulate filter and organic vapor NIOSH-certified respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limits. 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.
<b>Eye Protection:</b>	Where eye contact is likely, wear safety glasses; contact lens use is not recommended.
<b>Skin Protection</b>	<p>Where skin contact is likely, wear neoprene, nitrile, PVC (polyvinyl chloride, or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended.</p> <p>When product is heated and skin contact is likely, wear heat-insulating gloves, Boots, and other protective clothing.</p> <p>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.</p>
<b>Personal Hygiene</b>	Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco products. Clean contaminated clothing, shoes, and protective equipment before reuse. Discard leather articles, such as shoes, saturated with these products.
<b>Other Protective Equipment</b>	Where spills and splashes are likely, facilities storing or using these products should be equipped with an emergency eyewash and shower, equipped with clean water , in the immediate work area.

## **9. Physical And Chemical Properties**

<b>Physical State</b>	
<b>Appearance, and Odor:</b>	Liquid, amber, petroleum odor.
<b>Odor Threshold:</b>	
<b>Molecular Weight:</b>	Not applicable.

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Physical chemical properties (cont`d)

<b>Specific Gravity:</b>	0.88 (Water=1) (approximately)
<b>Density:</b>	7.3 LB/US gal (880 g/l) (approximately)
<b>Vapor Density:</b>	Not available.
<b>Vapor Pressure:</b>	less than 0.1 mm Hg at 68°F (20°C)
<b>Boiling Point:</b>	475°F (246°C)
<b>Freezing/Melting Point:</b>	Not available [pour point 27°F (-3°C) (maximum)]
<b>pH:</b>	Not applicable.
<b>Evaporation Rate:</b>	Not available.
<b>Solubility in Water:</b>	Insoluble.
<b>Flash Point:</b>	302°F (150°C) (minimum) Cleveland Open Cup
<b>Flammable Limits in Air:</b>	<b>Lower:</b> Not available <b>Upper:</b> Not available
<b>Autoignition Temperature:</b>	Not available.

## **10. Stability and Reactivity**

<b>Stability:</b>	Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.
<b>Incompatibility:</b>	Avoid oxidizing agents.
<b>Reactivity:</b>	Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.
<b>Hazardous Decomposition:</b>	None under normal temperatures and pressures. See also <b>SECTION 5:</b>
<b>Products:</b>	<b>HAZARDOUS COMBUSTION PRODUCTS.</b>

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## **11: Toxicological Information**

<b>Sensitization:</b>	Based on best current information, there is no known human sensitization associated with these products.
<b>Mutagenicity:</b>	Experimental evidence suggests that these products do not cause mutagenesis.
<b>Carcinogenicity:</b>	<p>No animal skin carcinogenicity tests of the hydrotreated paraffinic base oil CAS 64742-58-1 have been conducted. Neither OSHA, ACGIH, IARC, nor NTP have classified this material as to its carcinogenic risk.</p> <p>Based on best current information, for the other components listed in <b>SECTION2</b>, there is no known carcinogenicity as regulated by OSHA; as categorized by ACGIH A1 OR A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents, or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.</p>
<b>Reproductive Toxicity:</b>	Based on best current information, there is no known reproductive toxicity associated with these products.
<b>Teratogenicity:</b>	Based on best current information, there is no known teratogenicity associated with these products.
<b>Toxicologically Synergistic Products(s)</b>	Based on best current information, there are no known toxicologically synergistic products associated with these products.

## **12. Ecological Information**

<b>Ecotoxicity:</b>	Not available.
<b>Octanol/Water Partition Coefficient:</b>	Not available.
<b>Volatile Organic Compounds:</b>	100WT%; 7.3 LB/US gal; 880 g/l (approximately) As per 40 CFR Part 5.1 100(s).

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## **13. Disposal Considerations**

<b>Disposal:</b>	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.
<b>USEPA Waste:</b>	This product, if discarded, is not expected to be characteristic or listed hazardous waste. If recycled in the USA, it must be managed in accordance with 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

## **14. Transport Transportation**

<b>DOT:</b>	Not regulated.
<b>TDG:</b>	Not regulated.
<b>Emergency Response Guide Number:</b>	Not applicable. Reference <u>North America Emergency Response Guidebook</u>

## **15. Regulatory Information**

### **USA Regulations**

<b>SARA Sections 302 and 304:</b>	These products do not contain any “extremely hazardous substances” 302 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.
<b>SARA Sections 311 and 312:</b>	These products pose the following health hazards as defined in 40 CFR Part 370 and are subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):  Immediate (Acute) Health Hazard Delayed (Chronic) health Hazard
<b>SARA Section 313:</b>	These products do not contain toxic chemicals subject to requirements of Section 13 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

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Ecological information (cont'd)

<b>CERCLA:</b>	These products do not contain any "hazardous substances" listed pursuant to the comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.
<b>TSCA:</b>	All the components of these products are listed on, or are exempted from the requirement to be listed on, the TSCA Inventory.
<b>CALIFORNIA:</b>	These products may contain detectable amounts of benzo(a)anthracene, CAS 56-55-3; benzo(k)fluoranthene, CAS 207-08-9; benzo(a)pyrene, CAS 50-32-8; benzo(b)fluoranthene, CAS 205-99-2; chrysene, CAS 218-01-9; dibenz(a,h)anthracene, CAS 53-70-3; and indeno(1,2,3-cd)pyrene, CAS 193-39-5. <b>WARNING:</b> These chemicals are known to the State of California to cause cancer. Our testing of these products indicates that these chemicals are not always detectable.
<b>Canadian Regulations</b> These products have been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.	
<b>WHMIS:</b>	Not regulated.
<b>Canadian Environmental Protection Act</b>	All the components of these products are listed on, or are exempted from the requirement to be listed on, the Canadian Domestic Substances List (DSL).

## **16. Other Information**

User assumes all risks incident to the use of these products. To the best of our knowledge, the information contained herein is accurate. However, BOSS Lubricants assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties either expressed or implied, or merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the products as supplied by the user.

Date Prepared: March 1, 2009

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