



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name Bel-Ray Shop Oil 10W-40
Product Code 99433
MSDS Number 6615
Version # 2.1
Revision date 04-12-2012
Product use 4 Stroke Shop Engine Oil
Manufacturer information Bel-Ray Company, Inc.
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United States of America
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CHEMTREC: +1 703-527-3887 (outside USA)
CHEMTREC: 800-424-9300 (USA)

2. Hazards Identification

Emergency overview Harmful in contact with eyes. Prolonged exposure may cause chronic effects.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.
Eyes Eye contact may result in corneal injury. Contact may irritate or burn eyes. Do not get this material in contact with eyes.
Skin Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Avoid contact with the skin.
Inhalation Prolonged inhalation may be harmful. Avoid breathing dust/fume/gas/mist/vapors/spray.
Ingestion Components of the product may be absorbed into the body by ingestion. Do not ingest.
Target organs Eyes. RESPIRATORY SYSTEM. Skin.
Chronic effects Conjunctiva. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms Corneal damage. Conjunctivitis. Defatting of the skin. Skin irritation. Rash.
Potential environmental effects Components of this product are hazardous to aquatic life. May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Distillates (petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	0 - 100
Distillates (petroleum), Solvent-dewaxed Heavy Paraffinic	64742-65-0	0 - 100
Distillates (petroleum), Solvent-refined Heavy Paraffinic	64741-88-4	0 - 100
Residual Oils (petroleum), Solvent-refined	64742-01-4	0 - 100

Composition comments IP 346: < 3.0% DMSO extract for all base oil substances.

4. First Aid Measures

First aid procedures
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin contact Wash off with warm water and soap.
Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Ingestion	Rinse mouth thoroughly. Do not induce vomiting. Never give liquid to an unconscious person.
Notes to physician	Symptoms may be delayed.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	Not flammable by OSHA criteria. Not combustible by OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Hazardous combustion products	Carbon monoxide and carbon dioxide.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Should not be released into the environment. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSDS.

7. Handling and Storage

Handling	DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged exposure. Avoid release to the environment. Hydrogen sulfide (H2S) may be given off when this material is heated. Do not depend on sense of smell for warning.
Storage	Keep away from heat, sparks and open flame. Store in a well-ventilated place. Keep container tightly closed. Keep away from food, drink and animal feedingstuffs. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Paraffinic (64742-54-7)	PEL	5 mg/m3	Mist.
Distillates (petroleum), Solvent-dewaxed Heavy Paraffinic (64742-65-0)	PEL	5 mg/m3	Mist.
		2000 mg/m3	

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Distillates (petroleum), Solvent-refined Heavy Paraffinic (64741-88-4)	PEL	500 ppm 5 mg/m3	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	PEL	2000 mg/m3 500 ppm 5 mg/m3	Mist.

Engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment**Eye / face protection**

Do not get in eyes. Chemical goggles are recommended. Eye wash fountain is recommended.

Skin protection

Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygiene considerations

Do not get in eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Oily.
Physical state	Liquid.
Form	Liquid.
Color	Amber.
Odor	Petroleum
Odor threshold	Not available.
pH	Not available.
Vapor pressure	0.13 hPa estimated
Density	876 kg/m ³
Vapor density	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Negligible
Solubility (other)	Oil
Specific gravity	0.88
Relative density	Not available.
Flash point	377.6 °F (192 °C) Pensky-Martens Closed Cup estimated
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
VOC	< 0.1 %
Viscosity	94.96 cSt ASTM D445
Percent volatile	0.08 % estimated
Other data	
Flammability class	Combustible IIIB estimated
Viscosity temperature	104 °F (40 °C)

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
Incompatible materials	Not available.
Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide. Hydrogen sulfide. Mercaptans.

11. Toxicological Information

Toxicological data

Product	Test Results
Bel-Ray Shop Oil 10W-40 (Mixture)	Acute Dermal LD50 Rabbit: 3669.72 mg/kg estimated Acute Oral LD50 Rat: 4053.51 mg/kg estimated Acute Oral LD50 Rat: 1291.99 g/kg estimated
Local effects	Components of the product may be absorbed into the body through the skin. Contact may irritate or burn eyes.
Chronic effects	Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
ACGIH Carcinogens	
Distillates (petroleum), Solvent-refined Heavy Paraffinic MINERAL OIL, EXCLUDING METAL WORKING FLUIDS, PURE, HIGHLY AND SEVERELY REFINED, INHALABLE FRACTION (CAS 64741-88-4)	A4 Not classifiable as a human carcinogen.

12. Ecological Information

Ecotoxicological data

Product	Test Results
Bel-Ray Shop Oil 10W-40 (Mixture)	EC50 Daphnia: 633.07 mg/l 48 hours estimated LC50 Fish: 527.43 mg/l 96 hours estimated

* Estimates for product may be based on additional component data not shown.

Ecotoxicity	Components of this product are hazardous to aquatic life.
Environmental effects	Harmful to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	Not available.

13. Disposal Considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
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Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
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14. Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. One or more components are not listed on TSCA. CERCLA/SARA Hazardous Substances - Not applicable.	
CERCLA (Superfund) reportable quantity	None	
Superfund Amendments and Reauthorization Act of 1986 (SARA)		
Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No	
Section 302 extremely hazardous substance	No	
Section 311 hazardous chemical	No	
Inventory status		
Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)		
State regulations	California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.	
US - New Jersey RTK - Substances: Listed substance		
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	Listed.	
Distillates (petroleum), Solvent-refined Heavy Paraffinic (CAS 64741-88-4)	Listed.	
Residual Oils (petroleum), Solvent-refined (CAS 64742-01-4)	Listed.	
US - Pennsylvania RTK - Hazardous Substances: Listed substance		
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	Listed.	
Residual Oils (petroleum), Solvent-refined (CAS 64742-01-4)	Listed.	
16. Other Information		
Further information	HMIS® is a registered trade and service mark of the NPCA.	
HMIS® ratings	Health: 1* Flammability: 1 Physical hazard: 0	
NFPA ratings	Health: 1 Flammability: 1 Instability: 0	
Disclaimer	Bel-Ray Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.	
Issue date	04-12-2012	

**This data sheet contains
changes from the previous
version in section(s):**

Product and Company Identification: Product and Company Identification
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties