



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	Bel-Ray EXS Full Synthetic Ester 4T Engine Oil 10W-50
Product Code	99160
MSDS Number	6400
Version #	1.0
Revision date	06-14-2010
Product use	Lubricant
Manufacturer information	Bel-Ray Company, Inc. P.O. Box 526 Farmingdale, NJ 07727 United States of America +1 732 938 2421 CHEMTREC: +1 703-527-3887 (outside USA) CHEMTREC: 800-424-9300 (USA)

2. Hazards Identification

Emergency overview	Irritating to eyes and skin. This is a consumer care product that is safe for consumers when used according to the label directions. Like many consumer products, a small number of individuals may experience reactions such as redness, rash and / or swelling upon prolonged or repeated skin contact or eye contact.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Skin contact. Eye contact.
Eyes	Causes eye irritation.
Skin	Irritating to skin.
Inhalation	Prolonged inhalation may be harmful. Health injuries are not known or expected under normal use.
Ingestion	Health injuries are not known or expected under normal use.
Signs and symptoms	Irritation of eyes and mucous membranes.
Potential environmental effects	Not expected to be harmful to aquatic organisms.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Interchangeable base oils, one or more: 64742-54-7, 64742-52-5, 64742-88-4		50 - 70
ANTIMONY, TRIS(DIPENTYLCARBAMODITHIOATO)	15890-25-2	0.1 - 1

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 if irritation develops and persists.
Skin contact	Remove and isolate contaminated clothing and shoes. Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting. If ingestion of a large amount does occur, call a poison control center immediately. Never give liquid to an unconscious person.
General advice	Call a physician if symptoms develop or persist. 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.
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Extinguishing media**Suitable extinguishing media**

Water. Water spray. Foam. Dry powder. Carbon dioxide (CO2).

Fire fighting equipment/instructions

Not available.

Specific methods

Cool containers exposed to flames with water until well after the fire is out.

Hazardous combustion products

May include oxides of nitrogen. Carbon monoxide and carbon dioxide.

6. Accidental Release Measures**Personal precautions**

Keep unnecessary personnel away. Keep upwind. Keep out of low areas. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. In case of spills, beware of slippery floors and surfaces.

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). Use water spray to reduce vapors or divert vapor cloud drift.

Methods for cleaning up

Should not be released into the environment. Dike far ahead of spill for later disposal. Avoid dust formation. Wipe up with absorbent material (e.g. cloth, fleece). Following product recovery, flush area with water.

Never return spills in original containers for re-use.

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. Avoid contact with skin. Avoid contact with eyes. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment.

Storage

Keep away from heat, sparks and open flame. Room temperature - normal conditions. Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection**Occupational exposure limits****ACGIH****Components****Type****Value****Form**

ANTIMONY, TRIS(DIPENTYLCARBAMODITHIOATO)
(15890-25-2)

TWA

0.5000 mg/m3

Interchangeable base oils, one or more: 64742-54-7,
64742-52-5, 64742-88-4

STEL

10.0000 mg/m3

Mist.

TWA

5.0000 mg/m3

Mist.

U.S. - OSHA**Components****Type****Value****Form**

ANTIMONY, TRIS(DIPENTYLCARBAMODITHIOATO)
(15890-25-2)

PEL

0.5000 mg/m3

Interchangeable base oils, one or more: 64742-54-7,
64742-52-5, 64742-88-4

TWA

0.5000 mg/m3

PEL

5.0000 mg/m3

Mist.

TWA

5.0000 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**

Avoid contact with eyes.

Skin protection

Avoid contact with the skin. Wear suitable protective clothing.

Respiratory protection

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

General hygiene considerations

Avoid contact with eyes. Avoid contact with skin. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Oily.
Color	Amber.
Odor	Petroleum
Odor threshold	Not available.
Physical state	Liquid
Form	Liquid.
pH	Not available.
Melting point/Freezing point	Not available.
Boiling point	199.4 °F (93 °C) estimated
Flash point	381.2 °F (194 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	50 % v/v estimated
Flammability limits in air, lower, % by volume	1 % v/v estimated
Vapor pressure	0.0014 hPa estimated
Density	865 kg/m ³
Vapor density	Not available.
Specific gravity	0.865
Relative density	Not available.
Solubility (water)	Negligible
Solubility (other)	Oil Solvents
Partition coefficient (n-octanol / water)	Not available.
Auto-ignition temperature	500 °F (260 °C) estimated
Decomposition temperature	Not available.
VOC	0.751998 % estimated
Viscosity	135 cSt @ 104 °F (40 °C)
Percent volatile	0.0846 % estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat, flames and sparks.
Hazardous decomposition products	Nitrogen oxides (NOx). At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

11. Toxicological Information

Toxicological data

Product	Test Results
Bel-Ray EXS Full Synthetic Ester 4T Engine Oil 10W-50 (Mixture)	Acute Dermal LD50 Rabbit: 19950 mg/kg estimated Acute Inhalation LC50 Rat: 618 mg/l estimated Acute Oral LD50 Rat: 2364 g/kg estimated
Components	Test Results
ANTIMONY, TRIS(DIPENTYLCARBAMODITHIOATO) (15890-25-2)	Acute Dermal LD50 Rabbit: > 16000 mg/kg Acute Oral LD50 Rat: > 16000 mg/kg

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

Acute effects	Causes skin and eye irritation.
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Local effects	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Irritating to eyes. Irritating to skin.
Chronic effects	Prolonged inhalation may be harmful.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

12. Ecological Information

Ecotoxicological data

Product	Test Results
Bel-Ray EXS Full Synthetic Ester 4T Engine Oil 10W-50 (Mixture)	EC50 Daphnia: 684 mg/l 48.00 hours estimated LC50 Fish: 2232 mg/l 96.00 hours estimated

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

Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	Not available.

13. Disposal Considerations

Disposal instructions	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.
Waste from residues / unused products	Dispose of in accordance with local regulations.

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. All components are on the U.S. EPA TSCA Inventory List.
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US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

ANTIMONY, TRIS(DIPENTYLCARBAMODITHIOATO) (CAS 1.0 % N010 15890-25-2)

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

ANTIMONY, TRIS(DIPENTYLCARBAMODITHIOATO) (CAS Listed. N010 15890-25-2)

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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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
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Korea	Existing Chemicals List (ECL)	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

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

ARSENIC (CAS 7440-38-2)	Listed: February 27, 1987 Carcinogenic.
CADMIUM AND COMPOUNDS (CAS 7440-43-9)	Listed: October 1, 1987 Carcinogenic.
LEAD (CAS 7439-92-1)	Listed: October 1, 1992 Carcinogenic.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

CADMIUM AND COMPOUNDS (CAS 7440-43-9)	Listed: May 1, 1997 Developmental toxin.
LEAD (CAS 7439-92-1)	Listed: February 27, 1987 Developmental toxin.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

LEAD (CAS 7439-92-1)	Listed: February 27, 1987 Female reproductive toxin.
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US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

CADMIUM AND COMPOUNDS (CAS 7440-43-9)	Listed: May 1, 1997 Male reproductive toxin.
LEAD (CAS 7439-92-1)	Listed: February 27, 1987 Male reproductive toxin.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

ANTIMONY, TRIS(DIPENTYLCARBAMODITHIOATO) (CAS 15890-25-2) 500 LBS

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Interchangeable base oils, one or more: 64742-54-7, 64742-52-5, 64742-88-4 (CAS) Listed.

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 2
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 2
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. 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.

Issue date

06-14-2010