



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name Bel-Ray Shop Oil 20W-50
Product Code 99435
Version # 2.1
Revision date 04-12-2012
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.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Inhalation. Eye contact.
Eyes Causes eye irritation.
Skin Health injuries are not known or expected under normal use.
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.
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 if irritation persists after washing.
Skin contact Rinse skin with water/shower. Get medical attention if irritation develops and persists.
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. 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 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: Wipe up with absorbent material (e.g. cloth, fleece). 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. Avoid contact with eyes. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. 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. Keep container tightly closed. 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. |
| Distillates (petroleum), Solvent-refined Heavy Paraffinic (64741-88-4) | PEL | 2000 mg/m3 500 ppm 5 mg/m3 | Mist. |
| | | 2000 mg/m3 500 ppm | |

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

| Components | Type | Value | Form |
|---|------|---------|-------|
| Residual Oils (petroleum), Solvent-refined (64742-01-4) | PEL | 5 mg/m3 | Mist. |

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye / face protection Avoid contact with eyes. Chemical goggles are recommended. Eye wash fountain is recommended.

Skin protection Normal work clothing (long sleeved shirts and long pants) is recommended.

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. |
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Amber. |
| Odor | Petroleum |
| Odor threshold | Not available. |
| pH | Not available. |
| Vapor pressure | 0.13 hPa estimated |
| Density | 882 kg/m ³ |
| Vapor density | Not available. |
| Boiling point | > 564.8 °F (> 296 °C) |
| Melting point/Freezing point | Not available. |
| Solubility (water) | Negligible |
| Solubility (other) | Hydrocarbon solvents |
| Specific gravity | 0.88 |
| Relative density | Not available. |
| Flash point | 392 °F (200 °C) Pensky-Martens Closed Cup |
| Flammability limits in air, upper, % by volume | Not available. |
| Flammability limits in air, lower, % by volume | Not available. |
| Auto-ignition temperature | 500 °F (260 °C) estimated |
| VOC | < 0.1 % |
| Viscosity | 19 cSt ASTM D445 |
| Percent volatile | 0.08 % estimated |
| Other data | |
| Flammability class | Combustible IIIB estimated |
| Kinematic viscosity | 19 cSt |
| Kinematic viscosity temp | 212 °F (100 °C) |
| 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 | No hazardous decomposition products are known. At thermal decomposition temperatures, carbon monoxide and carbon dioxide. Hydrogen sulfide. Mercaptans. |

11. Toxicological Information

Toxicological data

| Product | Test Results |
|---|--|
| Bel-Ray Shop Oil 20W-50 (Mixture) | Acute Dermal LD50 Rabbit: 2406.74 mg/kg estimated Acute Oral LD50 Rat: 2566.08 mg/kg estimated Acute Oral LD50 Rat: 1291.99 g/kg estimated |
| Local effects | Irritating to eyes. |
| Chronic effects | Prolonged inhalation may be harmful. |
| 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 20W-50 (Mixture) | EC50 Daphnia: 633.07 mg/l 48 hours estimated LC50 Fish: 247.16 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

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|-------------------------------|---|
| 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. |
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. |

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 - No
Delayed Hazard - No
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
Regulatory Information: United States