



SAFETY DATA SHEET

1. Product and company identification

Product name Bel-Ray 2T Mineral Engine Oil
Product code 99010
SDS number 6401

Bel-Ray Company PTY Limited
4 Ginger Street
Paget, QLD 4740 Australia
749525778
CHEMTREC: 1800 069 100 (AUS)

Bel-Ray Company, Inc.
P.O. Box 526
Farmingdale, NJ 07727
United States of America
+1 732 938 2421
CHEMTREC: 800-424-9300 (USA)
CHEMTREC: +1 703-527-3887 (outside USA - call collect)

Recommended use and Limitations on use

Not available.

2. Hazards identification

GHS classification

Physical hazards	Flammable liquids	Category 4
Health hazards	Skin corrosion/irritation	Category 3
	Serious eye damage/eye irritation	Category 2B
	Germ cell mutagenicity	Category 2
	Specific target organ toxicity following single exposure	Category 2 (Lung)
	Specific target organ toxicity following repeated exposure	Category 1 (Lung, skin)
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

*Hazards not stated here are "Not classified", "Not applicable" or "Classification not possible".

Label elements

Symbols None.
Signal word None.
Hazard statement None.

Precautionary statement

Prevention	Obtain special instructions before use. Read label before use. Do not handle until all safety precautions have been read and understood. Do not get this material in contact with skin. Do not get this material in contact with eyes. Do not get this material on clothing. Wear eye/face protection. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Keep out of reach of children.
Response	Collect spillage. IF exposed or if you feel unwell: Call a POISON CENTRE or doctor/physician. IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Rinse mouth. Remove/Take off immediately all contaminated clothing. IF ON SKIN: Gently wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician. If medical advice is needed, have product container or label at hand. Wash contaminated clothing before reuse.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Substance or mixture	Mixture		
Chemical property		CAS Number	Concentration (%)
Distillates (petroleum), Hydrotreated Heavy Paraffinic		64742-54-7	20 - < 30
Distillates (petroleum), Solvent-refined Heavy Paraffinic		64741-88-4	20 - < 30
Stoddard solvent		8052-41-3	5 - < 10
Stoddard Solvent			
R76640 - MINERAL OILS		Proprietary	3 - < 5
Other components below reportable levels			30 - < 40

4. First aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control centre immediately.
Skin contact	Take off immediately all contaminated clothing. Immediately flush skin with plenty of water. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse. Call a physician or poison control centre immediately.
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. Call a physician or poison control centre immediately.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Never give liquid to an unconscious person.
Potential delayed effects	Not available.
Personal protection for first-aid responders	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. Discard any shoes or clothing items that cannot be decontaminated.
Notes to physician	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media	Water. Water spray. Foam. Dry powder. Carbon dioxide (CO ₂).
Extinguishing media to avoid	Do not use a solid water stream as it may scatter and spread fire.
HAZCHEM Code Number	None.
Specific hazards during fire fighting	None.
Special fire fighting procedures	In the event of fire and/or explosion do not breathe fumes. Cool containers exposed to flames with water until well after the fire is out.
Protection of fire-fighters	In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. ALWAYS stay away from tanks engulfed in flame. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue. Water runoff can cause environmental damage.
Hazards from combustion products	May include oxides of Nitrogen. Carbon monoxide and carbon dioxide.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Immediately evacuate personnel to safe areas. Local authorities should be advised if significant spillages cannot be contained. Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep upwind. Keep out of low areas. Keep people away from and upwind of spill/leak. Fully encapsulating, vapour protective clothing should be worn for spills and leaks with no fire. Ventilate closed spaces before entering them. 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.

Spill cleanup methods Remove sources of ignition. Dike far ahead of spill for later disposal. Collect spillage. Following product recovery, flush area with water. Prevent product from entering drains. Wipe up with absorbent material (e.g. cloth, fleece).

Never return spills in original containers for re-use.

7. Handling and storage

Handling

Precautions Obtain special instructions before use. Do not taste or swallow. Use personal protective equipment as required. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Safe handling advice Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. Avoid prolonged exposure.

Prevention of fire and explosion Not available.

Storage

Suitable storage conditions Store locked up. Room temperature - normal conditions. Store in a well-ventilated place. Keep container tightly closed. Keep out of the reach of children.

Incompatible materials Strong oxidizing agents.

Safe packaging materials Keep in original container.

8. Exposure controls/personal protection

Exposure limits

New Zealand. WES. (Workplace Exposure Standards)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Paraffinic (64742-54-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Distillates (petroleum), Solvent-refined Heavy Paraffinic (64741-88-4)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
R76640 - MINERAL OILS (Proprietary)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Stoddard solvent (8052-41-3)	TWA	525 mg/m3	
		100 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value
Stoddard solvent (8052-41-3)	TWA	100 ppm

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Paraffinic (64742-54-7)	TWA	5 mg/m3	Mist.
Distillates (petroleum), Solvent-refined Heavy Paraffinic (64741-88-4)	TWA	5 mg/m3	Mist.
R76640 - MINERAL OILS (Proprietary)	TWA	5 mg/m3	Mist.
Stoddard solvent (8052-41-3)	TWA	790 mg/m3	

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

Respiratory protection	Wear positive pressure self-contained breathing apparatus (SCBA).
Skin protection	Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Eye/face protection	Wear eye/face protection. Wear chemical protective equipment that is specifically recommended by the manufacturer.
Radioactive or thermal hazards	Not available.
Hygiene measures	Do not get in eyes. Do not get this material in contact with skin. Do not get this material on clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practices.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid. Liquid.
Colour	Dark blue Dark blue

Odour

Petroleum
Petroleum

pH

Not available.

Odour threshold

Not available.

Melting point/freezing point

-70 °C (-94 °F) estimated

Boiling point, Initial boiling point, and boiling range

159 °C (318.2 °F) estimated

Flash point

73.00 °C (163.40 °F) Pensky-Martens Closed Cup

Auto-ignition temperature

260 °C (500 °F) estimated

Flammability (solid, gas)

Not available.

Flammability limit - lower (%)

0.9 % estimated

Flammability limit - upper (%)

6 % estimated

Explosive limit

Not available.

Vapour pressure

2.853105088 hPa estimated

Density

876.30 kg/m³

Vapour density

Not available.

Evaporation rate

Not available.

Relative density

Not available.

Solubility

Negligible

Solubility (other)

Oil
Solvents

Partition coefficient (n-octanol/water)

Not available.

Decomposition temperature

Not available.

Viscosity

58.57 cSt

Percent volatile

0.036 % estimated

Other data

Flammability class	Combustible IIIA estimated
Specific gravity	0.8763
Viscosity temperature	40 °C (104 °F)
VOC (Weight %)	8 %

10. Stability and reactivity

Stability

Risk of ignition. Material is stable under normal conditions.

Conditions to avoid

Heat, flames and sparks. Avoid high temperatures.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products Irritants. Nitrogen oxides (NOx). At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

Possibility of hazardous reactions Hazardous polymerisation does not occur.

11. Toxicological information

Acute toxicity Fatal if swallowed. Fatal in contact with skin.

Product	Species	Test results
Bel-Ray 2T Mineral Engine Oil (Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	11931.1934 g/kg, estimated 2170.0273 mg/kg, estimated
<i>Oral</i>		
LD50	Rat	2223.5608 mg/kg, estimated 1585.3658 g/kg, estimated
<i>Other</i>		
LD50	Rat	23170.7324 mg/kg, estimated

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

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Symptoms Not available.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye irritation. None known.

Skin sensitiser None known.

Germ cell mutagenicity May cause genetic defects. No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity May cause cancer. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classifiable as to carcinogenicity to humans.

Toxic to reproduction Contains no ingredient listed as toxic to reproduction

Specific target organ toxicity - single exposure Lungs.

Specific target organ toxicity - repeated exposure Liver. Lungs. Skin. Testes.

Chronic effects Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.

Relevant negative data Not available.

Other information Symptoms may be delayed.

12. Ecological information

Ecotoxicological data

Product	Species	Test results	
Bel-Ray 2T Mineral Engine Oil (Mixture)			
Crustacea	EC50	Daphnia	9241.0439 mg/l, 48 hours, estimated
Fish	LC50	Fish	120.3981 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.

Persistence and degradability Not available.

Bioaccumulation

Bioaccumulative potential

Octanol/water partition coefficient log Kow

Stoddard solvent 3.16 - 7.15

Mobility Not available.

Other hazardous effects Not available.

13. Disposal considerations

Disposal methods/information Contract with a disposal operator licensed by the Law on Disposal and Cleaning. 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 of contents/container in accordance with local/regional/national/international regulations. When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.

Special precautions Not available.

14. Transport information

International regulations

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

Applicable regulations

New Zealand Inventory of Chemicals (NZIoC): Registration status

Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	May be used as a single component chemical under an appropriate group standard
Distillates (petroleum), Solvent-refined Heavy Paraffinic (CAS 64741-88-4)	May be used as a single component chemical under an appropriate group standard
R76640 - MINERAL OILS (CAS Proprietary)	May be used as a single component chemical under an appropriate group standard
Stoddard solvent (CAS 8052-41-3)	HSNO Approved

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
New Zealand	New Zealand Inventory	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)

16. Other information

References

ACGIH
EPA: ACQUIRE database
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
HSDB® - Hazardous Substances Data Bank
JIS Z 7250: 2005 Safety data sheet for chemical products-Part 1:Content and order of sections
JCIA GHS Guideline, October 2008
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits

Issued by

Not available.

Prepared by

Not available.

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

12-August-2013

Revision date

14-August-2013