



# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Material name** Bel-Ray Blue Tac Chain Lube  
**Product code** 99060  
**Recommended use** Lubricant  
**Version No.** 2.0  
**Revision date** 04-December-2013  
**Manufacturer**  
Bel-Ray Company, Inc.  
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United States of America  
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## 2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

**Classification** Xn;R65, Xi;R38, R67, N;R50/53  
**Risk phrase(s)** R38 Irritating to skin.  
R65 Harmful: May cause lung damage if swallowed.  
R67 Vapours may cause drowsiness and dizziness.  
R50/53 Very toxic to aquatic organisms, May cause long-term adverse effects in the aquatic environment.  
**Safety phrase(s)** S1/2 Keep locked up and out of the reach of children.  
S23 Do not breathe gas/fumes/vapour/spray.  
S29 Do not empty into drains.  
S38 In case of insufficient ventilation, wear suitable respiratory equipment.  
S51 Use only in well-ventilated areas.  
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent
Heptane	142-82-5	30 - 60
Propane	74-98-6	10 - < 30
2,5-bis(octyldithio)-1,3,4-thiadiazole	13539-13-4	< 10
Butane	106-97-8	< 10
Isobutane	75-28-5	< 10
Stoddard solvent	8052-41-3	< 10
Other components below reportable levels		10 - < 30

## 4. FIRST-AID MEASURES

**Inhalation** Move to fresh air. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.  
**Skin contact** Take off immediately all contaminated clothing. Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.

<b>Eye contact</b>	Flush eyes immediately with large amounts of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	If swallowed, seek medical advice immediately and show this container or label. Rinse mouth thoroughly. Do not induce vomiting. 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. Never give liquid to an unconscious person.
<b>General advice</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Call a physician if symptoms develop or persist.
<b>Notes to physician</b>	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Foam. Carbon dioxide (CO <sub>2</sub> ). Powder.
<b>Extinguishing media which must not be used for safety reasons</b>	Do not use water jet as an extinguisher, as this will spread the fire. Water.
<b>Unusual fire &amp; explosion hazards</b>	Heat may cause the containers to explode.
<b>Specific hazards</b>	Fire may produce irritating, corrosive and/or toxic gases.
<b>Special protective equipment for fire-fighters</b>	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Structural firefighters protective clothing will only provide limited protection.
<b>Hazchem Code</b>	None
<b>Hazardous combustion products</b>	Carbon monoxide and carbon dioxide.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Keep unnecessary personnel away. Fully encapsulating, vapour protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Avoid inhalation of vapours and spray mists. In case of spills, beware of slippery floors and surfaces.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.
<b>Containment procedures</b>	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable.
<b>Methods for cleaning up</b>	Stop the flow of material, if this is without risk. Prevent product from entering drains. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Isolate area until gas has dispersed.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13.

## 7. HANDLING AND STORAGE

<b>Handling</b>	In case of insufficient ventilation, wear suitable respiratory equipment. Pressurised container: Do not pierce or burn, even after use. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not use if spray button is missing or defective. Do not re-use empty containers. Do not breathe dust/fume/gas/mist/vapors/spray. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains.
<b>Storage</b>	Level 1 Aerosol.  Keep locked up. Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Avoid exposure to long periods of sunlight. Refrigeration recommended. Store in a well-ventilated place. Keep out of the reach of children.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (106-97-8)	TWA	1000 ppm
Heptane (142-82-5)	STEL	500 ppm
	TWA	400 ppm
Isobutane (75-28-5)	TWA	1000 ppm
Propane (74-98-6)	TWA	1000 ppm
Stoddard solvent (8052-41-3)	TWA	100 ppm

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

Components	Type	Value
Butane (106-97-8)	TWA	1900 mg/m <sup>3</sup> 800 ppm
Heptane (142-82-5)	STEL	2050 mg/m <sup>3</sup> 500 ppm
	TWA	1640 mg/m <sup>3</sup> 400 ppm
Stoddard solvent (8052-41-3)	TWA	790 mg/m <sup>3</sup>

### Recommended monitoring procedures

**Additional exposure data** Not available.

**Engineering measures** Ensure adequate ventilation, especially in confined areas.

### Personal protective equipment

**Respiratory protection** If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator. In case of insufficient ventilation, wear suitable respiratory equipment.

**Hand protection** Not normally needed.

**Eye protection** Wear safety glasses with side shields (or goggles).

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

**General** Applicable for industrial settings only: Use personal protective equipment as required. Keep working clothes separately.

**Environmental exposure controls** Environmental manager must be informed of all major releases.

**Hygiene measures** When using, do not eat, drink or smoke. Wash hands after handling. Handle in accordance with good industrial hygiene and safety practices.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Tacky Aerosol Tacky Aerosol
<b>Physical state</b>	Gas.
<b>Form</b>	Aerosol Aerosol
<b>Colour</b>	Blue. Blue.
<b>Odour</b>	Hydrocarbon-like. Hydrocarbon-like.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Vapour pressure</b>	62.297623883 hPa estimated
<b>Density</b>	600.00 kg/m <sup>3</sup>
<b>Vapour density</b>	Not available.
<b>Boiling point</b>	-32 °C (-25.6 °F)
<b>Melting point/freezing point</b>	-187.6 °C (-305.7 °F) estimated
<b>Solubility (water)</b>	Negligible
<b>Solubility (other)</b>	Oil
<b>Specific gravity</b>	0.6

<b>Flash point</b>	-104.00 °C (-155.20 °F) Pensky-Martens Closed Cup
<b>Flammability limits in air, upper, % by volume</b>	9.5 % estimated
<b>Flammability limits in air, lower, % by volume</b>	0.9 % estimated
<b>Auto-ignition temperature</b>	246 °C (474.8 °F) estimated
<b>VOC</b>	71.5 %
<b>Viscosity</b>	4.5 cSt
<b>Percent volatile</b>	11.1855 % estimated
<b>Other data</b>	
<b>Flammability class</b>	Flammable IA estimated
<b>Viscosity temperature</b>	40 °C (104 °F)

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Risk of ignition.
<b>Conditions to avoid</b>	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
<b>Materials to avoid</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Toxic gas. Irritants. At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### Toxicological data

Product	Species	Test results
Bel-Ray Blue Tac Chain Lube (Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	60820.3945 g/kg, estimated 37276.5859 mg/kg, estimated
<i>Inhalation</i>		
LC50	Mouse	776.8345 mg/l, estimated
	Rat	181.3656 mg/l, estimated
LD50	Mouse	166.6667 mg/l, estimated
<i>Oral</i>		
LD50	Rat	98749.2969 mg/kg, estimated 8361.4092 g/kg, estimated
<i>Other</i>		
LD50	Mouse	493.2556 mg/kg, estimated
	Rat	61290.3242 mg/kg, estimated
<b>Components</b>		
Butane (106-97-8)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
Heptane (142-82-5)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	103 mg/l, 4 Hours
LD50	Mouse	75 mg/l, 2 Hours
<i>Other</i>		
LD50	Mouse	222 mg/kg

Components	Species	Test results
Isobutane (75-28-5)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Mouse	52 mg/l, 1 Hours
Propane (74-98-6)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	> 1442.847 mg/l, 15 Minutes

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

<b>Routes of exposure</b>	Inhalation. Ingestion. Skin contact. Eye contact.
<b>Chronic toxicity</b>	Prolonged inhalation may be harmful. Prolonged or repeated exposure may cause lung injury.
<b>Carcinogenicity</b>	Due to lack of data the classification is not possible.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

PETROLEUM SOLVENTS (CAS 8052-41-3) 3 Not classifiable as to carcinogenicity to humans.

<b>Mutagenicity</b>	Due to lack of data the classification is not possible.
<b>Reproductivity</b>	Due to lack of data the classification is not possible.
<b>Epidemiology</b>	No epidemiological data is available for this product.
<b>Local effects</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Irritating to eyes and skin. Irritating to eyes. Irritating to skin.
<b>Symptoms and target organs</b>	Irritating to mouth, throat, and stomach. Skin irritation.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicological data

Product	Species	Test results
Bel-Ray Blue Tac Chain Lube (Mixture)		
Crustacea	EC50	Daphnia 45255.4844 mg/l, 48 hours, estimated
Fish	LC50	Fish 3592.2285 mg/l, 96 hours, estimated

Components	Species	Test results
Heptane (142-82-5)		
<b>Aquatic</b>		
Fish	LC50	Mozambique tilapia (Tilapia mossambica) 375 mg/l, 96 hours

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

<b>Ecotoxicity</b>	Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the environment.
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### Bioaccumulation

#### Bioaccumulative potential

##### Octanol/water partition coefficient log Kow

Propane	2.36
Isobutane	2.76
Butane	2.89
Stoddard solvent	3.16 - 7.15
Heptane	4.66

<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Aquatic toxicity</b>	May cause long-term adverse effects in the aquatic environment.

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal instructions</b>	Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. After recovery of solvent dispose of residue as hazardous waste. Dispose in accordance with all applicable regulations.
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**Waste from residues / unused products**

Avoid discharge into water courses or onto the ground.

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## 14. TRANSPORT INFORMATION

### ADG

**UN number** UN1950  
**Proper shipping name** AEROSOLS, flammable  
**Hazard class** 2.1

### IATA

**UN number** UN1950  
**Proper shipping name** Aerosols, flammable  
**Hazard class** 2.1  
**Special precautions** IMDG Regulated Marine Pollutant.  
**ERG Code** 10L

### IMDG

**UN number** UN1950  
**Proper shipping name** AEROSOLS, flammable  
**Hazard class** 2.1  
**Special precautions** IMDG Regulated Marine Pollutant.

### ADG



### IATA; IMDG



**Hazchem Code**

None

**General**

IMDG Regulated Marine Pollutant.

## 15. REGULATORY INFORMATION

### National regulations

This Material Safety Data Sheet was prepared in accordance with the Australia National Code of Practice for the Preparation of Material Safety Data Sheets (NOHSC: 2011.)

#### Australia HVIC: Listed substance

1,2,4-Trimethyl benzene (CAS 95-63-6)	Listed.
Butane (CAS 106-97-8)	Listed.
Heptane (CAS 142-82-5)	Listed.
Xylene (all Isomers) (CAS 1330-20-7)	Listed.

#### Australia Medicines & Poisons Schedule 5: Use/Concentration/Exceptions

1,2,4-Trimethyl benzene (CAS 95-63-6)	Exception may apply, see the regulation for relevance.
Butane (CAS 106-97-8)	Exception may apply, see the regulation for relevance.
Heptane (CAS 142-82-5)	Exception may apply, see the regulation for relevance.
Isobutane (CAS 75-28-5)	Exception may apply, see the regulation for relevance.
Stoddard solvent (CAS 8052-41-3)	Exception may apply, see the regulation for relevance.
Xylene (all Isomers) (CAS 1330-20-7)	Exception may apply, see the regulation for relevance.

#### Australia Medicines & Poisons Schedule 6: Use/Concentration/Exceptions

Xylene (all Isomers) (CAS 1330-20-7)	Exception may apply, see the regulation for relevance.
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## 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
Japan	Inventory of Existing and New Chemical Substances (ENCS)	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)

## 16. OTHER INFORMATION

### 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

18-June-2010

### Revision date

04-December-2013

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

This document has undergone significant changes and should be reviewed in its entirety.