



SAFETY DATA SHEET

1. Product and company identification

Product name Bel-Ray Super Clean Chain Lube
Product code 99470
SDS number 6436

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Recommended use and Limitations on use

Recommended use Lubricant

2. Hazards identification

GHS classification

Physical hazards	Flammable aerosols	Category 1
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 5
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Reproductive toxicity	Category 2
	Specific target organ toxicity following single exposure	Category 3 narcotic effects
	Specific target organ toxicity following repeated exposure	Category 2
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 3

Label elements

Symbols



Signal word

Danger

Hazard statement

Extremely flammable aerosol. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention

Keep out of reach of children. Read label before use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurised container: Do not pierce or burn, even after use. Wear eye/face protection. Do not breathe mist or vapour. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves. Use personal protective equipment as required.

Response

If medical advice is needed, have product container or label at hand. IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTRE or doctor/physician if you feel unwell. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information

None.

3. Composition/information on ingredients

Substance or mixture Mixture

Chemical property	CAS Number	Concentration (%)
n-Hexane	110-54-3	20 - < 30
N-hexane		
3-Methylpentane	96-14-0	5 - < 10
3-methylpentane		
Isobutane	75-28-5	5 - < 10
Solvent Naphtha, Petroleum, Medium Aliphatic	64742-88-7	5 - < 10
Zinc oxide	1314-13-2	3 - < 5
Zinc Oxide		
2-methylpentane	107-83-5	1 - < 3
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	1 - < 3
Distillates (petroleum), Solvent-refined Heavy Paraffinic		
2,3-dimethylbutane	79-29-8	< 0.3
Other components below reportable levels		40 - < 50

4. First aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

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.

Ingestion

Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell. Never give liquid to an unconscious person.

Potential delayed effects

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Irritation of nose and throat. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Personal protection for first-aid responders

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

Notes to physician

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Extinguishing media to avoid	Do not use water jet as an extinguisher, as this will spread the fire.
HAZCHEM Code Number	None.
Specific hazards during fire fighting	Contents under pressure. Pressurised container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special fire fighting procedures	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Protection of fire-fighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Hazards from combustion products	Carbon monoxide and carbon dioxide.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.
Spill cleanup methods	Refer to attached safety data sheets and/or instructions for use. Keep combustibles (wood, paper, oil etc) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. 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. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Handling

Precautions	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Pressurised container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. 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 breathe mist or vapour. Avoid contact with eyes, skin, and clothing. Pregnant or breastfeeding women must not handle this product. Do not taste or swallow. When using, do not eat, drink or smoke. Avoid release to the environment. Do not re-use empty containers.
Safe handling advice	Avoid prolonged exposure. Should be handled in closed systems, if possible. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Use personal protection recommended in Section 8 of the SDS.
Prevention of fire and explosion	Pressurised container: Do not pierce or burn, even after use. 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.
Local and general ventilation	Provide adequate ventilation.

Storage

Suitable storage conditions	Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not handle or store near an open flame, heat or other sources of ignition. Refrigeration recommended. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).
Incompatible materials	Nitrates. Strong oxidising agents. Fluorine. Chlorine. For further information, please refer to section 10.

Safe packaging materials Pressurised container: Do not pierce or burn, even after use. Ground and bond containers when transferring material. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not use if spray button is missing or defective. Store in original tightly closed container. Do not re-use empty containers.

8. Exposure controls/personal protection

Exposure limits

New Zealand. WES. (Workplace Exposure Standards)

Components	Type	Value	Form
2,3-dimethylbutane (CAS 79-29-8)	STEL	3500 mg/m3	
	TWA	1000 ppm 1760 mg/m3 500 ppm	
2-methylpentane (CAS 107-83-5)	STEL	3500 mg/m3	
	TWA	1000 ppm 1760 mg/m3 500 ppm	
3-Methylpentane (CAS 96-14-0)	STEL	3500 mg/m3	
	TWA	1000 ppm 1760 mg/m3 500 ppm	
Distillates (petroleum), solvent-refined heavy paraffinic (CAS 64741-88-4)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2,3-dimethylbutane (CAS 79-29-8)	STEL	1000 ppm	
	TWA	500 ppm	
2-methylpentane (CAS 107-83-5)	STEL	1000 ppm	
	TWA	500 ppm	
3-Methylpentane (CAS 96-14-0)	STEL	1000 ppm	
	TWA	500 ppm	
Isobutane (CAS 75-28-5)	STEL	1000 ppm	
n-Hexane (CAS 110-54-3)	TWA	50 ppm	
Solvent Naphtha, Petroleum, Medium Aliphatic (CAS 64742-88-7)	TWA	200 mg/m3	Non-aerosol.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
n-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
2,3-dimethylbutane (CAS 79-29-8)	STEL	3500 mg/m3
	TWA	1000 ppm 1760 mg/m3 500 ppm
2-methylpentane (CAS 107-83-5)	STEL	3500 mg/m3
	TWA	1000 ppm 1760 mg/m3 500 ppm

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
3-Methylpentane (CAS 96-14-0)	STEL	3500 mg/m3
	TWA	1000 ppm 1760 mg/m3 500 ppm
Distillates (petroleum), solvent-refined heavy paraffinic (CAS 64741-88-4) n-Hexane (CAS 110-54-3)	TWA	5 mg/m3
	TWA	72 mg/m3 20 ppm

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

Components	Type	Value	Form
2,3-dimethylbutane (CAS 79-29-8)	STEL	3500 mg/m3	
	TWA	1000 ppm 1760 mg/m3 500 ppm	
2-methylpentane (CAS 107-83-5)	STEL	3500 mg/m3	
	TWA	1000 ppm 1760 mg/m3 500 ppm	
3-Methylpentane (CAS 96-14-0)	STEL	3500 mg/m3	
	TWA	1000 ppm 1760 mg/m3 500 ppm	
Distillates (petroleum), solvent-refined heavy paraffinic (CAS 64741-88-4) n-Hexane (CAS 110-54-3)	TWA	5 mg/m3	Mist.
	TWA	72 mg/m3 20 ppm	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling time
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion , without hydrolysis	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US ACGIH Threshold Limit Values: Skin designation

n-Hexane (CAS 110-54-3)	Can be absorbed through the skin.
Solvent Naphtha, Petroleum, Medium Aliphatic (CAS 64742-88-7)	Can be absorbed through the skin.

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. Eye wash facilities and emergency shower must be available when handling this product.

Personal protective equipment

Respiratory protection	Chemical respirator with organic vapour cartridge and full facepiece.
Hand protection	Wear appropriate chemical resistant gloves.
Skin protection	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Eye/face protection	Chemical respirator with organic vapour cartridge and full facepiece.
Radioactive or thermal hazards	Follow standard monitoring procedures.
Hygiene measures	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Aerosol
Colour	Not available.
Odour	Not available.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	-104.0 °C (-155.2 °F) Pensky-Martens Closed Cup propellant
Auto-ignition temperature	Not available.
Flammability (solid, gas)	Not available.
Flammability limit - lower (%)	0.7 % estimated
Flammability limit - upper (%)	9.5 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	Not available.
Density	1020.00 kg/m3 concentrate
Vapour density	Not available.
Evaporation rate	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Other data	
Flash point class	Flammable IA
VOC	81 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	Risk of ignition.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidising agents. Nitrates. Fluorine. Chlorine.
Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Acute toxicity	Harmful if swallowed. Narcotic effects.

Product	Species	Test results
Bel-Ray Super Clean Chain Lube		
Acute		
Dermal		
LD50	Rabbit	66667 mg/kg estimated
Inhalation		
LC50	Mouse	90703 ppm, 4 Hours estimated 9697 mg/l, 2 Hours estimated 627 mg/l, 1 Hours estimated
	Rat	9383 mg/l, 4 Hours estimated 8157 mg/l, 15 Minutes estimated
Components	Species	Test results
Isobutane (CAS 75-28-5)		
Acute		
Inhalation		
LC50	Mouse	52 mg/l, 1 Hours
n-Hexane (CAS 110-54-3)		
Acute		
Inhalation		
LC50	Mouse	48000 ppm, 4 Hours
Oral		
LD50	Rat	28710 mg/kg
Zinc oxide (CAS 1314-13-2)		
Acute		
Inhalation		
LC50	Mouse	> 5.7 mg/l, 4 Hours
Oral		
LD50	Mouse	7950 mg/kg
	Rat	> 5 g/kg

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

Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Symptoms	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Irritation of nose and throat. Skin irritation. May cause redness and pain.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory sensitiser	Based on available data, the classification criteria are not met.
Skin sensitiser	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Toxic to reproduction	Suspected of damaging fertility.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. May cause damage to organs through prolonged or repeated exposure.
Relevant negative data	Not available.

12. Ecological information

Ecotoxicological data

Product		Species	Test results
Bel-Ray Super Clean Chain Lube			
Aquatic			
Fish	LC50	Fish	217.4655 mg/l, 96 hours estimated
Components		Species	Test results
n-Hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours
Zinc oxide (CAS 1314-13-2)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2246 mg/l, 96 hours

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

Ecotoxicity	Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation	No data available.
Partition coefficient n-octanol/water (log Kow)	
2,3-dimethylbutane	3.42
2-methylpentane	3.74
3-Methylpentane	3.6
Isobutane	2.76
n-Hexane	3.9
Bioconcentration factor (BCF)	Not available.
Mobility	No data available for this product.
Other hazardous effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

14. Transport information

IATA

UN number	UN1950
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-

Packing group Not applicable.
Environmental hazards
Marine pollutant No.
EmS Not available.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

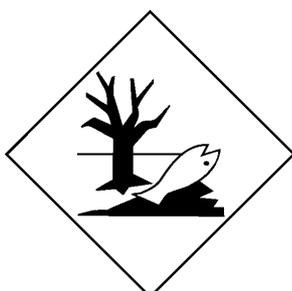
IATA



IMDG



Marine pollutant



15. Regulatory information

Applicable regulations

New Zealand Inventory of Chemicals (NZIoC): Registration status

2,3-dimethylbutane (CAS 79-29-8)	HSNO Approved
2-methylpentane (CAS 107-83-5)	HSNO Approved
3-Methylpentane (CAS 96-14-0)	HSNO Approved
Distillates (petroleum), solvent-refined heavy paraffinic (CAS 64741-88-4)	May be used as a single component chemical under an appropriate group standard
Isobutane (CAS 75-28-5)	HSNO Approved
n-Hexane (CAS 110-54-3)	HSNO Approved
Solvent Naphtha, Petroleum, Medium Aliphatic (CAS 64742-88-7)	May be used as a single component chemical under an appropriate group standard
Zinc oxide (CAS 1314-13-2)	HSNO Approved

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no) *
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

Country(s) or region	Inventory name	On inventory (yes/no) *
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
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)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

References Not available.

Issued by
Not available.

Prepared by
Not available.

Disclaimer Bel-Ray Company, LLC 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.

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