



SAFETY DATA SHEET

Section 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Trade name or designation of the mixture Big Twin Transmission Oil

Product code 96900

SDS number 6657

Registration number -

Synonyms None.

Date of first issue 27-January-2010

Version number 2,0

Revision date 24-January-2012

Supersedes date 11-January-2012

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Not available.

Uses advised against None known.

Details of the supplier of the safety data sheet

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Section 2: Hazards identification

Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This preparation does not meet the criteria for classification according to Directive 1999/45/EC as amended.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Skin sensitisation Category 1 May cause an allergic skin reaction.

Hazard summary

Physical hazards Not classified for physical hazards.

Health hazards Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.

Environmental hazards Not classified for hazards to the environment.

Specific hazards Not available.

Main symptoms Sensitisation.

Label elements

Label according to Regulation (EC) No. 1272/2008 as amended**Contains:** Di-tert-butyl Sulphide, Polysulphides, di-tert-Bu**Signal word** Warning**Hazard statements** May cause an allergic skin reaction.**Precautionary statements****Prevention** Keep out of reach of children. Read label before use. Avoid breathing mist or vapour. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.**Response** If medical advice is needed, have product container or label at hand. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (see on this label). If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.**Storage** Not available.**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.**Supplemental label information** Not applicable.**Other hazards** Not assigned.**Section 3: Composition/information on ingredients****Mixture****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
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Distillates (petroleum), solvent-refined heavy paraffinic	0 - < 100	64741-88-4 265-090-8	-	649-454-00-7	#
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Classification: **DSD:** -
CLP: -

Residual Oils (petroleum), Solvent-refined	0 - < 100	64742-01-4 265-101-6	-	649-459-00-4	#
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Classification: **DSD:** -
CLP: -

Amines, C12-14-alkyl, Reaction Products With Hexanol, Phosphorus Oxide (p2o5), Phosphorus Sulfide (p2s5) And Propylene Oxide	1 - < 3	91745-46-9 294-716-2	-	-	
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Classification: **DSD:** N;R51-53
CLP: Aquatic Chronic 4;H413

Polysulphides, di-tert-Bu	1 - < 3	68937-96-2 273-103-3	-	-	
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Classification: **DSD:** R43, R53
CLP: Skin Sens. 1;H317, Aquatic Chronic 4;H413

Other components below reportable levels	3 - < 5				
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CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

#: This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Composition comments The full text for all R- and H-phrases is displayed in section 16.

Section 4: First aid measures

General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Call a physician if symptoms develop or persist. Wash contaminated clothing before reuse.
Description of first aid measures	
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and plenty of water. For minor skin contact, avoid spreading material on unaffected skin. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Do not induce vomiting. If ingestion of a large amount does occur, call a poison control centre immediately. Never give liquid to an unconscious person.
Most important symptoms and effects, both acute and delayed	May cause allergic skin reaction.
Indication of any immediate medical attention and special treatment needed	Not available.

Section 5: Firefighting measures

General fire hazards	Not available.
Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Special hazards arising from the substance or mixture	Not available.
Advice for firefighters	
Special protective equipment for firefighters	Wear suitable protective equipment.
Special firefighting procedures	Not available.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch or walk through spilled material. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Avoid inhalation of vapors or mists. In case of spills, beware of slippery floors and surfaces.
For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the MSDS.

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

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.

Reference to other sections For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

Precautions for safe handling	Avoid breathing mist or vapour. Avoid contact with skin. Avoid prolonged exposure.
Conditions for safe storage, including any incompatibilities	Room temperature - normal conditions. Keep container tightly closed. Keep out of the reach of children.
Specific end use(s)	Not available.

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

Austria

No exposure limits noted for the ingredient(s).

Belgium. Exposure Limit Values.

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

Bulgaria. OELs. Regulation No 13 of Ministry of Labor & Social Policy, with Ministry of Health, on protection of workers related to exposure to chemical agents at work

Components	Type	Value
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	TWA	5 mg/m ³
Residual Oils (petroleum), Solvent-refined (64742-01-4)	TWA	5 mg/m ³

Cyprus

No exposure limits noted for the ingredient(s).

Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
Residual Oils (petroleum), Solvent-refined (64742-01-4)	Ceiling	10 mg/m ³	Aerosol
	TWA	5 mg/m ³	Aerosol

Denmark. Exposure Limit Values

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	TLV	1 mg/m ³	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	TLV	1 mg/m ³	Mist.

Estonia

No exposure limits noted for the ingredient(s).

Finland. Workplace Exposure Limits

Components	Type	Value	Form
Residual Oils (petroleum), Solvent-refined (64742-01-4)	TWA	5 mg/m ³	Mist.

France

No exposure limits noted for the ingredient(s).

Germany

No exposure limits noted for the ingredient(s).

Germany - TRGS 900

No exposure limits noted for the ingredient(s).

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	TWA	5 mg/m ³	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	TWA	5 mg/m ³	Mist.

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	Ceiling	5 mg/m ³	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	Ceiling	5 mg/m ³	Mist.

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	TWA	1 mg/m ³	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	TWA	1 mg/m ³	Mist.

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	TWA	0,2 mg/m ³	Inhalable fraction.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	TWA	0,2 mg/m ³	Inhalable fraction.

Italy. OELs

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	TWA	5 mg/m ³	Inhalable fraction.

Latvia

No exposure limits noted for the ingredient(s).

Lithuania. OELs. Occupational Exposure Limit Values for Hazardous Chemical Substance Concentration, General Requirements (No. 645/169)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	STEL	3 mg/m ³	Fume and mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	TWA	1 mg/m ³	Fume and mist.
	STEL	3 mg/m ³	Fume and mist.
	TWA	1 mg/m ³	Fume and mist.

Luxembourg

No exposure limits noted for the ingredient(s).

Malta

No exposure limits noted for the ingredient(s).

Netherlands. OELs (binding)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	TWA	5 mg/m ³	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	TWA	5 mg/m ³	Mist.

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	TLV	1 mg/m ³	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	TLV	1 mg/m ³	Mist.

Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	STEL	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol
Residual Oils (petroleum), Solvent-refined (64742-01-4)	STEL	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	STEL	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol
Residual Oils (petroleum), Solvent-refined (64742-01-4)	STEL	10 mg/m3	Aerosol
	TWA	5 mg/m3	Aerosol

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Residual Oils (petroleum), Solvent-refined (64742-01-4)	STEL	10 mg/m3	
	TWA	5 mg/m3	

Slovakia

No exposure limits noted for the ingredient(s).

Slovenia

No exposure limits noted for the ingredient(s).

Spain. Occupational Exposure Limits

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.

Sweden. Occupational Exposure Limit Values

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)	STEL	3 mg/m3	Mist.
	TWA	1 mg/m3	Mist.
Residual Oils (petroleum), Solvent-refined (64742-01-4)	STEL	3 mg/m3	Mist.
	TWA	1 mg/m3	Mist.

Switzerland

No exposure limits noted for the ingredient(s).

United Kingdom

No exposure limits noted for the ingredient(s).

EU, 91/322/EEC, 2000/39/EC, 2006/15/EC

No exposure limits noted for the ingredient(s).

Biological limit values

EU, 91/322/EEC, 2000/39/EC, 2006/15/EC

No biological exposure limits noted for the ingredient(s).

Finland

No biological exposure limits noted for the ingredient(s).

France

No biological exposure limits noted for the ingredient(s).

Luxembourg

No biological exposure limits noted for the ingredient(s).

Spain

No biological exposure limits noted for the ingredient(s).

United Kingdom

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

DNEL Not available.

PNEC Not available.

Exposure controls

Appropriate 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. Provide adequate general and local exhaust ventilation.

Individual protection measures, such as personal protective equipment

General information Applicable for industrial settings only: Use personal protective equipment as required.

Eye/face protection Not normally needed.

Skin protection

- **Hand protection** Wear protective gloves.

- **Other** Wear suitable protective clothing. Wear protective gloves. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

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

Thermal hazards Not available.

Hygiene measures Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practices.

Environmental exposure controls Not available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance Oily.

Physical state Liquid.

Form Liquid.

Colour Red.

Odour Petroleum

Odour threshold Not available.

pH Not applicable.

Melting point/freezing point Not available.

Boiling point, initial boiling point, and boiling range 343 °C (649,4 °F)

Flash point 246 °C (474,8 °F) Pensky-Martens Closed Cup

Auto-ignition temperature 260 °C (500 °F) estimated

Flammability (solid, gas) Not available.

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Oxidising properties	Not applicable.
Explosive properties	Not applicable.
Explosive limit	Not applicable.
Vapour pressure	0,13 hPa estimated
Density	894 kg/m ³
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Relative density	Not available.
Solubility (water)	Negligible
Solubility (other)	Oil

Information on basic physical and chemical properties

Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Bulk density	Not applicable.
Pour point	Not applicable.
Viscosity	346,5 cSt ASTM D445
Viscosity temperature	40 °C (104 °F)
Kinematic viscosity	346,5 cSt ASTM D445
Kinematic viscosity temp	40 °C (104 °F)
VOC (Weight %)	0 % estimated
Percent volatile	0 % estimated

Other data

Flammability class Combustible IIIB estimated

Specific gravity 0,89

Other information No relevant additional information available.

Section 10: Stability and reactivity

Reactivity	None known. Strong oxidizing agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Not available.
Conditions to avoid	Avoid temperatures exceeding the flash point.
Incompatible materials	None known.
Hazardous decomposition products	Toxic gas. At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

Section 11: Toxicological information

General information Not available.

Information on likely routes of exposure

Ingestion Not available.

Inhalation Not available.

Skin contact May cause an allergic skin reaction.

Eye contact Not available.

Symptoms Not available.

Information on toxicological effects

Acute toxicity Not available.

Product

Big Twin Transmission Oil (Mixture)

Test results

Acute Dermal LD50 Rabbit: 2260,3958 mg/kg estimated

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

Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Not available.
Respiratory sensitisation	Not available.
Skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not available.
Carcinogenicity	Not available.
Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Mixture versus substance information	Not available.
Other information	Not available.

Section 12: Ecological information

Toxicity

Product	Test results
Big Twin Transmission Oil (Mixture)	LC50 Fish: 21797,5 mg/l 96 hours estimated

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

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	Not available.
Mobility	Not available.
Environmental fate - Partition coefficient	Not available.
Mobility in soil	Not available.
Results of PBT and vPvB assessment	Not available.
Other adverse effects	Not available.

Section 13: Disposal considerations

Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available.

Section 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations**

Other regulations The product is classified and labelled in accordance with EC directives or respective national laws
This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations Not available.

Chemical safety assessment No Chemical Safety Assessment has been carried out.

Section 16: Other information

List of abbreviations Not available.

References Not available.

Information on evaluation method leading to the classification of mixture Not available.

Full text of any statements or R-phrases and H-phrases under Sections 2 to 15 R43 May cause sensitization by skin contact.
R51 Toxic to aquatic organisms.
R53 May cause long-term adverse effects in the aquatic environment.
H317 - May cause an allergic skin reaction.
H413 - May cause long lasting harmful effects to aquatic life.

Revision information Not available.

Training information 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.

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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
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)