



Safety Data Sheet

Issue Date: 22 June 2015 Issued by: Royal Precision Lubricants Page 1 of 10

Product Name: Marine Grease

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name Marine Grease
Product Code 9012

Company Name Royal Precision Lubricants Pty Limited (ABN 72 155 989 165)
Address 40 Kimberly Road, Dandenong South, Vic., 3175.
Telephone +61 3 9768 2441
Fax +61 3 9768 3325

2. HAZARDS IDENTIFICATION

Physical state	Solid. [grease]
Color	Blue.
Odor	Mild. Petroleum oil
Signal word	CAUTION!
Hazard statements	MAY CAUSE EYE IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Precautionary measures	Do not eat, drink or smoke when using this product. Avoid contact with eyes. Wash thoroughly after handling.
OSHA/HCS status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Dermal contact. Eye contact. Inhalation. Ingestion.
<u>Potential acute health effects</u>	
Inhalation	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Skin	No known significant effects or critical hazards.
Eyes	Moderately irritating to eyes.
<u>Potential chronic health effects</u>	
Chronic effects	Contains material that may cause target organ damage, based on animal data.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.
Target organs	Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes.
<u>Over-exposure signs/symptoms</u>	
Inhalation	No specific data.
Ingestion	No specific data.
Skin	No specific data.
Eyes	Adverse symptoms may include the following: irritation, watering, redness
Medical conditions aggravated by over- exposure	Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

United States

Product Name: Marine Grease

Name	CAS number	%
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4	40-60
Residual oils (petroleum), solvent-dewaxed	64742-62-7	20-40
tributyl borate	688-74-4	0.5-1.5

Canada

Name	CAS number	%
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4	40-60
Residual oils (petroleum), solvent-dewaxed	64742-62-7	20-40
tributyl borate	688-74-4	0.5-1.5

Mexico

Name	CAS number	UN number	%	IDLH	Classification		
					H	F	R
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4	Not available.	40-60	2500 mg/m'	1	1	0 -
Residual oils (petroleum), solvent-dewaxed	64742-62-7	Not available.	20-40	2500 mg/m'	1	1	0 -
tributyl borate	688-74-4	Not available.	0.5-1.5	-	2	2	0 -

4. FIRST AID MEASURES

Eye contact	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Ingestion	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Protection to first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Notes to physician	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Product Name: Marine Grease

5. FIRE FIGHTING MEASURES

Flammability of the product	No specific fire or explosion hazard.
<u>Extinguishing media</u>	
Suitable	Use an extinguishing agent suitable for the surrounding fire.
Not suitable	None known.
Special exposure hazards	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Hazardous thermal-decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
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Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
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Methods for Cleaning Up:

Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

Handling	Protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Storage	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTIONUnited States

Ingredient

Exposure limits

Product Name: Marine Grease

Distillates (petroleum), solvent-refined heavy naphthenic	ACGIH TLV (United States, 2/2010). TWA: 5 mg/m' 8 hour(s). Form: Inhalable fraction NIOSH REL (United States, 6/2009). TWA: 5 mg/m' 10 hour(s). Form: Mist STEL: 10 mg/m' 15 minute(s). Form: Mist OSHA PEL (United States, 6/2010). TWA: 5 mg/m' 8 hour(s).
Residual oils (petroleum), solvent-dewaxed	ACGIH TLV (United States, 2/2010). TWA: 5 mg/m' 8 hour(s). Form: Inhalable fraction NIOSH REL (United States, 6/2009). TWA: 5 mg/m' 10 hour(s). Form: Mist STEL: 10 mg/m' 15 minute(s). Form: Mist OSHA PEL (United States, 6/2010). TWA: 5 mg/m' 8 hour(s).

Canada

<u>Qc.a112aligasl iiXl29\$Yfe !imUS</u>		TWA (8 hours)			STEL (15 mins)			Celling			
Ingredient	List name	ppm	mg/m ³	Pther	ppm	mg/m ³	Other	ppm	mgfm ³	Other	Notations
Distillates (petroleum), solvent- refined heavy naphthenic	USACGIH 2/2010	-	5		-	-	-	-	-	-	I-I
	ON 7/2010	-	5		-	10	-	-	-	-	[b]
Residual oils (petroleum), solvent-dewaxed	QC 6/2008	-	5		-	10	-	-	-	-	[bl]
	USACGIH 2/2010	-	5		-	-	-	-	-	-	[a]
	ON 7/2010	-	5		-	10	-	-	-	-	[b]
	QC 6/2008	-	5		-	10	-	-	-	-	[b]

Form: [a]Inhalable fraction [b]mist

Mexico

Occupational exposure limits

Ingredient	Exposure limits
Distillates (petroleum), solvent-refined heavy naphthenic	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 5 mg/m' 8 hour(s). Form: mist LMPE-CT: 10 mg/m' 15 minute(s). Form: mist
Residual oils (petroleum), solvent-dewaxed	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 5 mg/m' 8 hour(s). Form: mist LMPE-CT: 10 mg/m' 15 minute(s). Form: mist

Consult local authorities for acceptable exposure limits.

Product Name: Marine Grease

Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
Engineering measures	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<u>Personal protection</u>	
Respiratory	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eyes	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid. [grease]
Flash point	Not available
Auto-ignition temperature	Not available
Flammable limits	Not available
Color	Blue.
Odor	Mild. Petroleum oil
pH	Not available
Boiling/condensation point	Not available
Melting/freezing point	Not available
Density	0.9 g/cm ³
Vapor pressure	Not available
Vapor density	Not available
Volatility	Not available
Evaporation rate	Not available
Viscosity	Not available
Dispersibility properties	Not available
Solubility	Insoluble in the following materials: cold water and hot water.

10. STABILITY AND REACTIVITY

Chemical stability	The product is stable
Conditions to avoid	No specific data
Incompatible materials	No specific data

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Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

11. TOXICOLOGICAL INFORMATIONUnited StatesAcute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), solvent-refined heavy naphthenic	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/ Summary

No known significant effects or critical hazards.

Chronic toxicity

Conclusion/Summary

Contains material that may cause target organ damage, based on animal data.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
tributyl borate	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-

Conclusion/SummarySkin

No known significant effects or critical hazards.

Eyes

Moderately irritating to eyes.

Respiratory

Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation. Pre-existing respiratory disorders may be aggravated by over-exposure to this product.

Sensitizer:Skin

No specific information is available in our database regarding the skin sensitizing properties of this product. Sensitization not suspected for humans.

Respiratory

Sensitization not suspected for humans.

Carcinogenicity

There are no data available on the preparation itself. Carcinogenicity not suspected for humans.

Mutagenicity

There are no data available on the preparation itself. Mutagenicity not suspected for humans.

Teratogenicity

There are no data available on the preparation itself. Teratogenicity not suspected for humans.

Reproductive toxicity

There are no data available on the preparation itself. Not considered to be dangerous to humans, according to our database.

12. ECOLOGICAL INFORMATIONEcotoxicity

Not readily biodegradable.

United StatesAquatic ecotoxicity

There are no data available on the preparation itself.

Persistence/degradability

This product has not been tested for biodegradation.

Not readily biodegradable.

Canada

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Aquatic ecotoxicity
Persistence/dearadability
Mexico

There are no data available on the preparation itself.
 There are no data available on the preparation itself.

Aquatic ecotoxicity
Persistence/dearadability

There are no data available on the preparation itself.
 This product has not been tested for biodegradation.
 Not readily biodegradable

13. DISPOSAL CONSIDERATIONS

Waste disposal:

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. TRANSPORT INFORMATION

Regulatory information	UN number	Proper shipping name	Classes	PG ²	Label	Additional information
DOT Classification	Not regulated	-	-	-	-	-
TDG Classification	Not regulated	-	-	-	-	-
Mexic Classification	Not regulated	-	-	-	-	-
ADR/RID Class	Not regulated	-	-	-	-	-
MDG Class	Not regulated	-	-	-	-	-
ATA.DGR Class	Not regulated	-	-	-	-	-

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15. REGULATORY INFORMATIONUnited States

HCS Classification	Irritating material Target organ effects
U.S. Federal regulations	TSCA 8(a) PAIR: Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts TSCA S(a) IUR Exempt/Partial exemption: Not determined United States inventory (TSCA Sb): Not determined. SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304/311/312 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: tributyl borate SARA 311/312 MSDS distribution - chemical inventory - hazard identification: tributyl borate: Fire hazard, Immediate (acute) health hazard Clean Water Act (CWA) 307: Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts; tris(dipentyldithiocarbamate-S,S')antimony
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	Not listed
Clean Air Act Section 602 Class I Substances	Not listed
Clean Air Act Section 602 Class II Substances	Not listed
DEA List I Chemicals (Precursor Chemicals)	Not listed
DEA List II Chemicals (Essential Chemicals)	Not listed

SARA 313

	Product name	CAS number	Concentration %
Form R - Reporting requirements	: No listed substance		
Supplier notification	: No listed substance		

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Connecticut Carcinogen Reporting	None of the components are listed.
Connecticut Hazardous Material Survey	None of the components are listed.
Florida substances	None of the components are listed.
Illinois Chemical Safety Act	None of the components are listed.

Illinois Toxic Substances Disclosure to Employee Act	None of the components are listed.
Louisiana Reporting	None of the components are listed.
Louisiana Spill	None of the components are listed.
Massachusetts Spill	None of the components are listed.
Massachusetts Substances	The following components are listed: TRI-N-BUTYL BORATE
Michigan Critical Material	None of the components are listed
Minnesota Hazardous Substances	None of the components are listed
New Jersey Spill	None of the components are listed
New Jersey Toxic Catastrophe Prevention Act	None of the components are listed
New Jersey Hazardous Substances	The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED); MINERAL OIL (UNTREATED and MILDLY TREATED); ZINC compounds
New York Acutely Hazardous Substances	None of the components are listed
New York Toxic Chemical Release Reporting	None of the components are listed
Pennsylvania RTK Hazardous Substances	The following components are listed: ZINC COMPOUNDS; BORIC ACID (H3B03), TRIBUTYL ESTER
Rhode Island Hazardous Substances	None of the components are listed
California	
United States Inventory	Not determined

Canada

WHMIS (Canada) Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI The following components are listed: Zinc

CEPA Toxic substances None of the components are listed.

Canada inventory: Not determined.

DSL/NDSL

Mexico

Classification



International regulations

International lists Australia inventory (AICS): Not determined. China inventory (IECSC): Not determined. Japan inventory: Not determined. Korea inventory: Not determined. New Zealand Inventory of Chemicals (NZioC): Not determined. Philippines inventory (PICCS): Not determined.

Europe inventory: Not determined.

Chemical Weapons: Not listed

Convention List Schedule Chemicals

Chemical Weapons Not listed

Convention List Schedule || Chemicals

Product Name: Marine Grease

Chemical Weapons Convention List Schedule
 ||| Chemicals

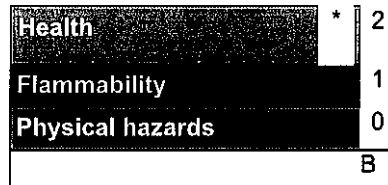
Not listed

16. Other Information

Label requirements

MAY CAUSE EYE IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material. National Fire Protection Association (U.S.A.)

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Date of issue 2/7/2012.
 Date of previous issue No
 previous validation. Version 1
 Prepared by Regulatory Department, Chemtool Inc.
 [JV Indicates information that has changed from previously issued version.

Contact Point: Technical Manager
Phone: 07 3203 2833

....End of MSDS....

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