

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

**SECTION 1. IDENTIFICATION**

Product name: ROYCO 555 DOD-PRF-85734

Product Use Description: Lubricant

Company:

Supplier  
LANXESS Canada Co./Cie  
25 ERB STREET  
Elmira, Ontario  
N3B 3A3  
Canada

Telephone: (US) +1 866-430-2775

Manufacturer  
LANXESS Canada Co./Cie  
565 Coronation Drive  
West Hill, Ontario  
M1E 2K3  
Canada

Telephone: 416-284-1661

Emergency telephone number: :  
CANUTEC: 613-996-6666 (call collect) (CANUTEC)

For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

Prepared by Product Safety Department  
(US) +1 866-430-2775

MSDSRequest@chemtura.com

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017


Print Date 08/28/2017

Reproductive toxicity : Category 2

Acute aquatic toxicity : Category 3

Chronic aquatic toxicity : Category 3

**GHS label elements**

Hazard pictograms : 

Signal word : Warning

Hazard statements : H361 Suspected of damaging fertility or the unborn child.  
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
**Storage:**  
P405 Store locked up.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
tris(methylphenyl) phosphate	1330-78-5	$\geq 0.1$ - $< 1$
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	$\geq 1$ - $< 5$
tris(methylphenyl) phosphate	1330-78-5	$\geq 0.1$ - $< 1$

Remaining ingredients not hazardous up to 100%.

**SECTION 4. FIRST AID MEASURES**

If inhaled : If inhaled  
Move to fresh air.  
If not breathing, give artificial respiration.  
If breathing is difficult, give oxygen.

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

	In case of bluish discolouration (lips, ear lobes, fingernails), give oxygen as quickly as possible. If symptoms persist, call a physician.
In case of skin contact	: In case of skin contact Wash off with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before re-use. Get medical attention if irritation develops and persists.
In case of eye contact	: In case of eye contact Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
If swallowed	: If swallowed, DO NOT induce vomiting. Consult a physician if necessary.
Most important symptoms and effects, both acute and delayed	: None known.
Notes to physician	: For specialist advice physicians should contact the Poisons Information Service.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media	: Carbon dioxide (CO <sub>2</sub> ) Dry powder Foam Alcohol-resistant foam Water mist
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Burning produces noxious and toxic fumes.
Further information	: In the event of fire, cool tanks with water spray.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Ensure adequate ventilation. Forms slippery/greasy layers with water.
Environmental precautions	: Should not be released into the environment. Do not contaminate water. Do not flush into surface water or sanitary sewer system.

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

Methods and materials for containment and cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

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**SECTION 7. HANDLING AND STORAGE**

Advice on safe handling : Keep container closed when not in use.  
Do not use pressure to empty drums.  
Ensure all equipment is electrically grounded before beginning transfer operations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Contains no substances with occupational exposure limit values.

**Engineering measures** : Effective exhaust ventilation system  
Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protective equipment**

Respiratory protection : Breathing apparatus needed only when aerosol or mist is formed.  
In the case of vapour formation use a respirator with an approved filter.

Hand protection

Remarks : Neoprene gloves

Eye protection : Safety glasses with side-shields  
Tightly fitting safety goggles

Skin and body protection : Impervious clothing

Hygiene measures : Avoid contact with skin, eyes and clothing.  
Handle in accordance with good industrial hygiene and safety practice.  
Wash hands before breaks and at the end of workday.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : amber

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

Odour	: mild
Odour Threshold	: No data available
pH	: No data available
Melting point/range	: Not applicable
Boiling point/boiling range	: No data available
Flash point	: > 246 °C Method: ASTM D92
Evaporation rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: 0.99
Density	: No data available
Solubility(ies)	
Water solubility	: slightly soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, kinematic	: No data available
Self-Accelerating decomposition temperature (SADT)	: Method: No information available.
Oxidizing potential	: No information available.

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

Possibility of hazardous reactions : Hazardous polymerisation does not occur.

Conditions to avoid : Contamination  
Heat, flames and sparks.

Incompatible materials : Strong acids and strong bases

Hazardous decomposition products : Carbon oxides

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product:**

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

**Skin corrosion/irritation**

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

**Serious eye damage/eye irritation**

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Species: Rabbit  
Result: No eye irritation  
Method: OECD Test Guideline 405

**Respiratory or skin sensitisation**

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Species: Guinea pig  
Assessment: Did not cause sensitisation on laboratory animals.  
Method: OECD Test Guideline 406

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

**Germ cell mutagenicity**

**Components:**

**tris(methylphenyl) phosphate:**

Germ cell mutagenicity - : In vitro tests did not show mutagenic effects  
Assessment

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Germ cell mutagenicity - : Not mutagenic in Ames Test  
Assessment

**tris(methylphenyl) phosphate:**

Germ cell mutagenicity - : In vitro tests did not show mutagenic effects  
Assessment

**Carcinogenicity**

**Components:**

**tris(methylphenyl) phosphate:**

Carcinogenicity - Assess- : Animal testing did not show any carcinogenic effects.  
ment

**tris(methylphenyl) phosphate:**

Carcinogenicity - Assess- : Animal testing did not show any carcinogenic effects.  
ment

**Reproductive toxicity**

**Components:**

**tris(methylphenyl) phosphate:**

Effects on foetal develop- : Species: Rat  
ment : Application Route: Oral  
Developmental Toxicity: NOEL: 20 mg/kg

Reproductive toxicity - As- : Suspected of damaging fertility or the unborn child.  
sessment : Did not show teratogenic effects in animal experiments.

**tris(methylphenyl) phosphate:**

Effects on foetal develop- : Species: Rat  
ment : Application Route: Oral  
Developmental Toxicity: NOEL: 20 mg/kg

Reproductive toxicity - As- : Suspected of damaging fertility or the unborn child.  
sessment : Did not show teratogenic effects in animal experiments.

**Aspiration toxicity**

**Product:**

No aspiration toxicity classification

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

**Further information****Product:**

Remarks: There is no data available for this product.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**Toxicity to fish :  
Remarks: No data availableToxicity to daphnia and other :  
aquatic invertebrates Remarks: No data availableToxicity to algae :  
Remarks: No data available**Components:****tris(methylphenyl) phosphate:**Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.75 mg/l  
Exposure time: 96 h  
  
LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l  
Exposure time: 96 hLC50 (Oncorhynchus mykiss (rainbow trout)): 0.6 mg/l  
Exposure time: 96 hToxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.146 mg/l  
aquatic invertebrates Exposure time: 48 h  
Method: OECD Test Guideline 202EC50 (Daphnia magna (Water flea)): 0.27 mg/l  
Exposure time: 48 hM-Factor (Acute aquatic tox- : 1  
icity)Toxicity to bacteria : EC50 (activated sludge): > 100 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 71 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 51 mg/l  
aquatic invertebrates Exposure time: 48 h  
Method: OECD Test Guideline 202



**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

Toxicity to algae : EbC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

**tris(methylphenyl) phosphate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.75 mg/l  
Exposure time: 96 h  
  
LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l  
Exposure time: 96 h  
  
LC50 (Oncorhynchus mykiss (rainbow trout)): 0.6 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.146 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
  
EC50 (Daphnia magna (Water flea)): 0.27 mg/l  
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 1

Toxicity to bacteria : EC50 (activated sludge): > 100 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition

**Persistence and degradability****Product:**

Biodegradability : Result: No data available

**Components:****Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Biodegradability : Result: According to the results of tests of biodegradability this product is not readily biodegradable.  
Method: CO2 Evolution Test

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: No data available

**Components:****tris(methylphenyl) phosphate:**

Partition coefficient: n-octanol/water : Pow: 5.93

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

Partition coefficient: n-  
octanol/water : log Pow: > 7

**tris(methylphenyl) phosphate:**

Partition coefficient: n-  
octanol/water : Pow: 5.93

**Mobility in soil**

**Product:**

Mobility : Remarks: No data available

**Other adverse effects**

**Product:**

Results of PBT and vPvB  
assessment : This substance is not considered to be persistent, bioaccumu-  
lating and toxic (PBT).

Additional ecological informa-  
tion : There is no data available for this product.

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Additional ecological informa-  
tion : Harmful to aquatic organisms, may cause long-term adverse  
effects in the aquatic environment.  
Do not allow material to contaminate ground water system.  
Do not flush into surface water or sanitary sewer system.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : In accordance with local and national regulations.

Contaminated packaging : Do not burn, or use a cutting torch on, the empty drum.

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**SECTION 14. TRANSPORT INFORMATION**

**International Regulations**

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

**National Regulations****TDG**

Not regulated as a dangerous good

**SECTION 15. REGULATORY INFORMATION**

Please note that Section 3 of this document lists only the hazardous components required by the specific country or region hazard communication regulations. The chemical identifiers listed in Section 3 are used globally for hazard communication purposes and may not reflect those used for chemical inventory coverage in a particular country or region. The chemical inventory information given in Section 15 of this document applies to the product as a whole and should be used when evaluating inventory compliance.

The components of this product are reported in the following inventories:

DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: Not in compliance with the inventory
ENCS	: Not in compliance with the inventory
KECI	: Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI	: On the inventory, or in compliance with the inventory
US.TSCA	: On TSCA Inventory

**Canadian lists**

Canada. Canadian Environmental Protection Act (CEPA). WHMIS Ingredient Disclosure List (Can. Gaz., Part II, Vol. 122, No. 2): WHMIS Ingredient Disclosure List IDL: No component is listed on the WHMIS ingredients disclosure list.

Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Can. Gaz. Part I, 135:12, 940): Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

Canada. CEPA 1999 Significant New Activity (SNAc) List: No substances are subject to a Significant New Activity Notification.

**SECTION 16. OTHER INFORMATION****Other Emergency Phone Number**

**ROYCO 555 DOD-PRF-85734**

Version 1.1

Revision Date 06/23/2017

Print Date 08/28/2017

<u>Latin America:</u>	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
<u>Mexico:</u>		+52 555 004 8763

**Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 06/23/2017

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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