

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: ROYCO 581 MIL-C-6529 T1  
PRESERVATIVE CONCENTRATE FOR AIRCRAFT ENGINES

Product Use Description: Lubricant

Synonyms: Synthetic Lubricant Formulation

Company: Manufacturer  
Anderol Specialty Lubricants, a division of Lanxess Solutions US Inc.  
215 Merry Lane  
East Hanover, NJ  
07936  
United States of America (USA)

Telephone: +1 203-573-4596, Toll Free: +1 888-263-3765

Emergency telephone number: CHEMTREC: (24 hours) 800-424-9300  
:  
For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

Prepared by Product Safety Department  
(US) +1 866-430-2775  
MSDSRequest@lanxess.com

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant

### SECTION 2. HAZARDS IDENTIFICATION

Form	liquid
Colour	amber
Odour	slight hydrocarbon-like

#### GHS Classification

Not a hazardous substance or mixture.

#### GHS label elements

Other hazards : None

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

Not a hazardous substance or mixture.

### Carcinogenicity:

#### IARC

Group 1: Carcinogenic to humans

Residual oils (petroleum), 64742-01-4  
solvent-refined

#### OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

#### NTP

Known to be human carcinogen

Residual oils (petroleum), 64742-01-4  
solvent-refined

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous components

Chemical name	CAS-No.	Concentration (%)
Residual oils (petroleum), solvent-refined	64742-01-4	>= 70 - < 90 %
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	>= 5 - < 10 %
2,6-di-tert-butyl-p-cresol	128-37-0	>= 0.1 - < 0.25 %

## 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.  
In case of bluish discoloration (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 : None known.

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

and effects, both acute and delayed

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 firefighting : Burning produces noxious and toxic fumes.

Specific extinguishing methods : 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.

Environmental precautions : Should not be released into the environment.  
Do not contaminate water.  
Do not flush into surface water or sanitary sewer system.

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).

### 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

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

transfer operations.

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

Materials to avoid : Strong acids and strong bases

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Residual oils (petroleum), solvent-refined	64742-01-4	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
		TWA (Mist)	5 mg/m <sup>3</sup>	OSHA P0
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	PEL (particulate)	5 mg/m <sup>3</sup>	CAL PEL
		TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
2,6-di-tert-butyl-p-cresol	128-37-0	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA P0
		PEL (particulate)	5 mg/m <sup>3</sup>	CAL PEL
		TWA	10 mg/m <sup>3</sup>	OSHA P0
		TWA (Inhalable fraction and vapor)	2 mg/m <sup>3</sup>	ACGIH
		TWA (Inhalable fraction and vapor)	2 mg/m <sup>3</sup>	ACGIH
		TWA	10 mg/m <sup>3</sup>	NIOSH REL
		PEL	10 mg/m <sup>3</sup>	CAL PEL

Engineering measures : Effective exhaust ventilation system

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

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.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Color : amber
- Odor : slight hydrocarbon-like
- Odour Threshold : No data available
- pH : No data available
- Melting point/range :  
Not applicable
- Boiling point/boiling range : No data available
- Evaporation rate : No data available
- Flash point : 284 °C  
Method: open cup
- 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 : 0.89
- Solubility(ies)

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

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  
Viscosity  
Viscosity, kinematic : No data available

### SECTION 10. STABILITY AND REACTIVITY

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

##### Components:

##### **2,6-di-tert-butyl-p-cresol:**

Acute oral toxicity : LD50 (Rat, male and female): > 2,930 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes  
Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

### Skin corrosion/irritation

#### Components:

##### **2,6-di-tert-butyl-p-cresol:**

Species: Rabbit

Result: No skin irritation

### Serious eye damage/eye irritation

#### Components:

##### **2,6-di-tert-butyl-p-cresol:**

Species: Rabbit

Result: No eye irritation

### Respiratory or skin sensitisation

#### Components:

##### **2,6-di-tert-butyl-p-cresol:**

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

### Germ cell mutagenicity

#### Components:

##### **2,6-di-tert-butyl-p-cresol:**

Genotoxicity in vitro

- : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Result: negative
- : Test Type: Chromosome aberration test in vitro  
Result: Conflicting results have been seen in different studies.
- : Test Type: unscheduled DNA synthesis assay  
Result: negative
- : Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Genotoxicity in vivo

- : Test Type: In vivo micronucleus test  
Species: Mouse (male and female)  
Cell type: Bone marrow  
Method: Mutagenicity (micronucleus test)  
Result: negative
- : Test Type: in vivo assay  
Species: Rat (male)  
Cell type: Bone marrow  
Application Route: Oral  
Method: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)  
Result: negative

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

### Carcinogenicity

#### IARC

Group 1: Carcinogenic to humans

Residual oils (petroleum), solvent-refined 64742-01-4

#### OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

#### NTP

Known to be human carcinogen

Residual oils (petroleum), solvent-refined 64742-01-4

### Reproductive toxicity

#### Components:

#### 2,6-di-tert-butyl-p-cresol:

Reproductive toxicity - Assessment : No toxicity to reproduction  
No effects on or via lactation

### STOT - repeated exposure

#### Components:

#### 2,6-di-tert-butyl-p-cresol:

Exposure routes: Oral

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Aspiration toxicity

#### Product:

No aspiration toxicity classification

### Further information

#### Product:

Remarks: There is no data available for this product.

## SECTION 12. ECOLOGICAL INFORMATION



# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

### Ecotoxicity

#### Product:

Toxicity to fish :  
Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates :  
Remarks: No data available

Toxicity to algae :  
Remarks: No data available

### Persistence and degradability

#### Components:

##### **2,6-di-tert-butyl-p-cresol:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Concentration: 50 mg/l  
Result: According to the results of tests of biodegradability this product is not readily biodegradable.  
Biodegradation: 4.5 %  
Exposure time: 28 d

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: No data available

#### Components:

##### **2,6-di-tert-butyl-p-cresol:**

Bioaccumulation : Species: Cyprinus carpio (Carp)  
Bioconcentration factor (BCF): 230 - 2,500  
Exposure time: 56 d  
Temperature: 77 °F / 25 °C  
Concentration: 0.05 mg/l

Partition coefficient: n-octanol/water : log Pow: 5.1  
GLP: yes

log Pow: 4.2

### Mobility in soil

#### Product:

Mobility : Remarks: No data available

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

### Other adverse effects

#### Product:

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

Additional ecological information : There is no data available for this product.

---

### 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.

---

### 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.

#### National Regulations

##### 49 CFR

Not regulated as a dangerous good

---

### SECTION 15. REGULATORY INFORMATION

#### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

### SARA304 Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### US State Regulations

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**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	On the inventory, or in compliance with the inventory
KECI	On the inventory, or in compliance with the inventory
PICCS	On the inventory, or 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

## SECTION 16. OTHER INFORMATION

### Further information

#### Other Emergency Phone Number

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

# SAFETY DATA SHEET



## ROYCO 581 MIL-C-6529 T1

Version: 1.8

Revision Date: 07/11/2018

Print Date: 04/02/2020

Mexico:		+52 555 004 8763
---------	--	------------------

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.