

ROYCO 481 MIL-PRF-6081

Version 2.2

Revision Date 27.03.2018

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name : ROYCO 481 MIL-PRF-6081

1.2 Relevant identified uses of the substance or mixture and uses advised againstUse of the Substance/Mixture : Raw material for industry
Lubricant

Recommended restrictions on use : For industrial use only.

1.3 Details of the supplier of the safety data sheetCompany: Supplier
LANXESS Solutions UK Ltd.
Tenax Road, Trafford Park
Manchester
United Kingdom
M17 1WTCustomer Service: +44 161 875 3800
Prepared by Product Safety Department
(US) +1 866-430-2775Further information for the safety data sheet :
MSDSRequest@lanxess.com**1.4 Emergency telephone number**

Emergency telephone number: +44 (0) 1235 239 670 (NCEC)

For additional emergency telephone numbers see section 16 of
the Safety Data Sheet.**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

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Aspiration hazard, Category 1

H304: May be fatal if swallowed and enters airways.

Chronic aquatic toxicity, Category 3

H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word :

Danger

Hazard statements :

H304

May be fatal if swallowed and enters airways.

H412

Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P273

Avoid release to the environment.

Response:

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331

Do NOT induce vomiting.

Storage:

P405

Store locked up.

Disposal:

P501

Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

Distillates (petroleum), hydrotreated light naphthenic

Paraffin oils (petroleum), catalytic dewaxed light

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)

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Distillates (petroleum), hydrotreated light naphthenic	64742-53-6 265-156-6	Asp. Tox.1; H304	>= 70 - < 90
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8 265-176-5 01-2119485040-48-0010	Asp. Tox.1; H304	>= 30 - < 50
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4 01-2119555270-46-xxxx	Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0.5 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No information available.

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SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
Foam
Alcohol-resistant foam
Water mist

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Burning produces noxious and toxic fumes.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Further information : In the event of fire, cool tanks with water spray.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Forms slippery/greasy layers with water.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Methods for 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).

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.
Keep container closed when not in use.
Do not use pressure to empty drums.
Ensure all equipment is electrically grounded before beginning transfer operations.

Hygiene measures : Avoid contact with skin, eyes and clothing. Provide adequate ventilation. Do not breathe dust or spray mist.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place.

Other data : Stable under recommended storage conditions.

7.3 Specific end use(s)

Specific use(s) : Raw material for industry

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2,6-di-tert-butyl-p-cresol	128-37-0	TWA	10 mg/m ³	GB EH40

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Component	End Use	Exposure routes	Potential health effects	Value:
2,6-di-tert-butyl-p-cresol	Workers	Skin contact		0.5 mg/kg
	Workers	Inhalation		3.5 mg/m ³

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Component	Environmental Compartment	Value
2,6-di-tert-butyl-p-cresol	Fresh water	Value: 0.000199 mg/l
	Marine water	Value: 0.000019 mg/l
	Fresh water sediment	Value: 0.0996 mg/kg
	Marine sediment	Value: 0.00996 mg/kg

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	Soil	Value: 0.04769 mg/kg
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8.2 Exposure controls

Personal protective equipment

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

Hand protection

: Neoprene gloves

Skin and body protection

: Impervious clothing

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.

Environmental exposure controls

General advice : Should not be released into the environment., Do not contaminate water., Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : light yellow

Odour : hydrocarbon-like

Odour Threshold : No data available

pH : No data available

Melting point/range : Not applicable

Boiling point/boiling range : No data available

Flash point : 143 °C
Method: open cup

Evaporation rate : No data available

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Flammability (solid, gas) : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 0.88

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

Viscosity

Viscosity, kinematic : 10 mm²/s (40 °C)**9.2 Other information**Self-Accelerating
decomposition temperature
(SADT) : Method: No information available.

Oxidizing potential : No information available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Conditions to avoid : Heat

10.5 Incompatible materials

Materials to avoid : Strong acids and strong bases

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10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon oxides

SECTION 11: Toxicological information**11.1 Information on toxicological effects**Information on likely routes of exposure : Inhalation
Eye contact
Skin contact**Acute toxicity****Product:**

Acute oral toxicity : Remarks: Not classified due to lack of data.

Acute inhalation toxicity : Remarks: Not classified due to lack of data.

Acute dermal toxicity : Remarks: Not classified due to lack of data.

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: yesAcute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes**Skin corrosion/irritation****Product:**

Remarks: Not classified due to lack of data.

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

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation**Product:**

Remarks: Not classified due to lack of data.

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

Species: Rabbit

Result: No eye irritation

Respiratory or skin sensitisation**Product:**

Remarks: Not classified due to lack of data.

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

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity**Product:**

Germ cell mutagenicity

Assessment : Not classified due to lack of data.

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

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

Carcinogenicity**Product:**

Carcinogenicity
Assessment : Not classified due to lack of data.

Reproductive toxicity**Product:**

Reproductive toxicity
Assessment : Not classified due to lack of data.

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

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

STOT - single exposure**Product:**

Assessment: Not classified due to lack of data.

STOT - repeated exposure**Product:**

Assessment: Not classified due to lack of data.

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**Components:****Distillates (petroleum), hydrotreated light naphthenic:**

May be fatal if swallowed and enters airways.

Further information**Product:**

Remarks: There is no data available for this product.

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SECTION 12: Ecological information**12.1 Toxicity****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

Components:**2,6-di-tert-butyl-p-cresol:**Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.07 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Analytical monitoring: yes
GLP: yes**12.2 Persistence and degradability****Components:****2,6-di-tert-butyl-p-cresol:**Biodegradability : Test Type: 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**12.3 Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: No data available

Components:**2,6-di-tert-butyl-p-cresol:**Bioaccumulation : Species: Cyprinus carpio (Carp)
Exposure time: 56 d
Temperature: 25 °C
Concentration: 0.05 mg/l
Bioconcentration factor (BCF): 230 - 2,500Partition coefficient: n-octanol/water : log Pow: 5.1
GLP: yes

log Pow: 4.2

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12.4 Mobility in soil**Product:**

Mobility : Remarks: No data available

12.5 Results of PBT and vPvB assessment**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects**Product:**

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

SECTION 13: Disposal considerations**13.1 Waste treatment methods**Product : Dispose of in accordance with the European Directives on waste and hazardous waste.
Dispose of wastes in an approved waste disposal facility.

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

SECTION 14: Transport information**14.1 UN number**

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer

Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants

Not applicable

Major Accident Hazard Legislation

Seveso Directive

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
34	Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)	2,500 t	25,000 t

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:

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DSL	: Not in compliance with the inventory
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or 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

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H304	May be fatal if swallowed and enters airways.
H412	Harmful to aquatic life with long lasting effects.

Emergency Phone Number

<u>Europe:</u>	All European Countries	+44 (0) 1235 239 670 (NCEC)
<u>Asia Pacific:</u>	East / South East Asia – Regional Number	+65 3158 1074 (NCEC)
	Australia	+61 2 8014 4558
	New Zealand	+64 9929 1483 (NCEC)
	China	+86 512 8090 3042 (NCEC)
	Taiwan	+886 2 8793 3212 (NCEC)
	Japan	+81 3 4578 9341 (NCEC)
	Indonesia	007 803 011 0293 (NCEC)
	Malaysia	+60 3 6207 4347 (NCEC)
	Thailand	001 800 120 666 751 (NCEC)
	Korea	+65 3158 1285 (NCEC)
	Vietnam	+84 8 4458 2388 (NCEC)
	India	+65 3158 1198 (NCEC)
	Pakistan	+65 3158 1329 (NCEC)
	Philippines	+65 3158 1203 (NCEC)
	Sri Lanka	+65 3158 1195 (NCEC)

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	Bangladesh	+65 3158 1200 (NCEC)
<u>Middle East / Africa:</u>		+44 (0) 1235 239 671 (NCEC)
<u>North America</u>	United States of America (USA)	(800) 424-9300 (CHEMTREC)
	Canada	(800) 424-9300 (CHEMTREC)
<u>Latin America</u>	Mexico	+52 555 004 8763 (NCEC)
	Brazil	+55 11 3197 5891 (NCEC)
	Chile	+56 2 2582 9336 (NCEC)
	All other countries	+44 (0) 1235 239 670 (NCEC)

Further information

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.