



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: ROYCO 27 MIL-G-23827
INSTRUMENT & MULTI-PURPOSE GREASE

Product Use Description: Lubricant

Company: Manufacturer
Anderol Specialty Lubricants, a division of Chemtura Corporation
215 Merry Lane
East Hanover, NJ
07936
United States of America

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

Emergency telephone number: CHEMTREC: (24 hours) 800-424-9300
:
: 703-527-3887

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

Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

Form	paste
Colour	tan
Odour	mild oily

GHS Classification


Skin sensitisation : Category 1
Acute aquatic toxicity : Category 3
Chronic aquatic toxicity : Category 3

GHS Label element

ROYCO 27 MIL-G-23827

Version: 1.1 Revision Date: 08/24/2015 Print Date: 10/13/2015

Signal word : **Warning**

Hazard pictograms : 

Hazard statements : H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Other hazards : None

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Self-ignitable : No data available

Carcinogenicity:

IARC Group 3: Not classifiable as to its carcinogenicity to humans
Distillates (petroleum), 64742-52-5
hydrotreated heavy
naphthenic
2,6-di-tert-butyl-p-cresol 128-37-0

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	Concentration (%)



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

Print Date: 10/13/2015

lithium stearate	4485-12-5	>= 10 - < 20 %
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 1 - < 5 %
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	>= 1 - < 5 %
N-1-naphthylaniline	90-30-2	>= 0.1 - < 1 %
2,6-di-tert-butyl-p-cresol	128-37-0	>= 0.1 - < 1 %

SECTION 4. FIRST AID MEASURES

- If inhaled : Remove to fresh air.
If breathing is difficult, give oxygen.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with warm water and soap.
If skin irritation persists, call a physician.
Cool skin rapidly with cold water after contact with molten material.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Get medical attention immediately.
- If swallowed : Do NOT induce vomiting.
Obtain medical attention.
Never give anything by mouth to an unconscious person.
- 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 (CO₂)
Dry chemical
Dry sand
Water mist
Foam
- Unsuitable extinguishing media : Water spray jet
- Specific hazards during firefighting : Burning produces irritant fumes.
Exposure to decomposition products may be a hazard to health.
- Specific extinguishing methods : Cool containers/tanks with water spray.



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

Print Date: 10/13/2015

Special protective equipment for firefighters : Self-contained breathing apparatus with full face-piece operated in positive pressure mode.
Body covering protective clothing, full "turn-out" gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Wear suitable protective equipment.
Ensure adequate ventilation.

Environmental precautions : Should not be released into the environment.
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 : Wear suitable protective equipment.
Avoid contact with skin, eyes and clothing.
Keep tightly closed.
Protect from contamination.

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

Materials to avoid : Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
lithium stearate	4485-12-5	TWA	10 mg/m3	ACGIH
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m3	ACGIH
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
		TWA (Mist)	5 mg/m3	OSHA P0
N-1-naphthylaniline	90-30-2	TWA	10 ml/m3	ACGIH
2,6-di-tert-butyl-p-cresol	128-37-0	TWA	10 mg/m3	OSHA P0
		TWA (Inhalable)	2 mg/m3	ACGIH



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

Print Date: 10/13/2015

		fraction and vapor)		
		TWA (Inhalable fraction and vapor)	2 mg/m3	ACGIH
		TWA	10 mg/m3	NIOSH REL

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

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
 In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

Hand protection
Remarks : Neoprene gloves When handling hot material, use heat resistant gloves.

Eye protection : Tightly fitting safety goggles

Skin and body protection : impervious clothing

Hygiene measures : 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 : paste

Color : tan

Odor : mild oily

Odour Threshold : No data available

pH : No data available

Melting point/range :
 No data available

Boiling point/boiling range : No data available

Evaporation rate : No data available

Flash point : > 202 °C
 Method: open cup

Auto-flammability : No data available

Upper explosion limit : No data available



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

Print Date: 10/13/2015

Lower explosion limit : No data available

Vapour pressure : Not applicable

Relative vapour density : No data available

Relative density : No data available

Density : 0.92 g/cm³

Solubility(ies)

Water solubility : negligible

Solubility in other solvents : partly soluble

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : not determined

Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

SECTION 10. STABILITY AND REACTIVITY

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

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : Hazardous polymerisation does not occur.

Conditions to avoid : Contamination
Heat, flames and sparks.

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : Sulphur oxides
Carbon oxides
Nitrogen oxides (NO_x)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
Benzenamine, N-phenyl-,
reaction products with 2,4,4-
trimethylpentene
(Component) : LD50: > 2,000 mg/kg
Species: Rat
Method: OECD Test Guideline 401



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

Print Date: 10/13/2015

N-1-naphthylaniline (Component)	: LD50: 1,625 mg/kg Species: Rat
2,6-di-tert-butyl-p-cresol (Component)	: LD50: > 2,930 mg/kg Species: Rat Method: OECD Test Guideline 401
Acute dermal toxicity Benzenamine, N-phenyl-, reaction products with 2,4,4- trimethylpentene (Component)	: LD50: > 2,000 mg/kg Species: Rat
N-1-naphthylaniline (Component)	: LD50 Dermal: > 5,000 mg/kg Species: Rabbit
2,6-di-tert-butyl-p-cresol (Component)	: LD50: > 2,000 mg/kg Species: Rat Method: OECD Test Guideline 402
Skin irritation Benzenamine, N-phenyl-, reaction products with 2,4,4- trimethylpentene (Component)	: Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404
N-1-naphthylaniline (Component)	: Species: Rabbit Result: No skin irritation Method: Draize Test
2,6-di-tert-butyl-p-cresol (Component)	: Species: Rabbit Result: No skin irritation
Eye irritation Benzenamine, N-phenyl-, reaction products with 2,4,4- trimethylpentene (Component)	: Species: Rabbit Result: No eye irritation Method: OECD Test Guideline 405
N-1-naphthylaniline (Component)	: Species: Rabbit Result: No eye irritation Method: OECD Test Guideline 405
2,6-di-tert-butyl-p-cresol (Component)	: Species: Rabbit Result: No eye irritation
Sensitisation Benzenamine, N-phenyl-, reaction products with 2,4,4- trimethylpentene (Component)	: Species: Guinea pig Classification: Did not cause sensitisation on laboratory animals. Method: OECD Test Guideline 406
N-1-naphthylaniline (Component)	: Maximisation Test (GPMT) Species: Guinea pig Classification: May cause sensitisation by skin contact.



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

Print Date: 10/13/2015

Result: May cause sensitisation by skin contact.

Patch Test

Species: Human

Classification: May cause sensitisation by skin contact.

Result: May cause sensitisation by skin contact.

2,6-di-tert-butyl-p-cresol (Component) : Species: Guinea pig
Classification: Did not cause sensitisation on laboratory animals.

Aspiration toxicity (Product) : No aspiration toxicity classification

CMR effects

lithium stearate (Component) : Mutagenicity: In vitro tests did not show mutagenic effects

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (Component) : Mutagenicity: Not mutagenic in Ames Test

N-1-naphthylaniline (Component) : Carcinogenicity: Animal testing did not show any carcinogenic effects.
Mutagenicity: Animal testing did not show any mutagenic effects., Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

2,6-di-tert-butyl-p-cresol (Component) : Mutagenicity: Animal testing did not show any mutagenic effects.
Teratogenicity: No effects on or via lactation
Reproductive toxicity: No toxicity to reproduction

Further information (Product) : The product itself has not been tested.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish (Product) : Remarks:
No data available

Toxicity to daphnia and other aquatic invertebrates

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (Component) : EC50: 51 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 202

N-1-naphthylaniline : EC50: 0.68 mg/l



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

Print Date: 10/13/2015

- (Component) Exposure time: 48 h
Species: Daphnia magna (Water flea)
semi-static test Analytical monitoring: yes
- Toxicity to algae
Benzenamine, N-phenyl-,
reaction products with 2,4,4-
trimethylpentene
(Component) : Ebc50: > 100 mg/l
Exposure time: 72 h
Species: Desmodesmus subspicatus (green algae)
Method: OECD Test Guideline 201
- Toxicity to bacteria
N-1-naphthylaniline
(Component) : EC50: 2 mg/l
Exposure time: 48 h
Species: Protozoa
- EC50: > 10,000 mg/l
Exposure time: 3 h
Species: Bacteria
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
N-1-naphthylaniline
(Component) : NOEC: 0.02 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Analytical monitoring: yes

Elimination information (persistence and degradability)

- Bioaccumulation (Product) : Remarks:
No data available
- Mobility (Product) : Remarks:
No data available
- Biodegradability (Product) : Result: No data available

Further information on ecology

Ecotoxicology Assessment

Results of PBT assessment (Product)

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

Additional ecological information (Product) : The product itself has not been tested.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of as hazardous waste in compliance with local and national regulations.



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

Print Date: 10/13/2015

Dispose of wastes in an approved waste disposal facility.
Do not contaminate ponds, waterways or ditches with
chemical or used container.
Do not dispose of waste into sewer.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

ADR

Not dangerous goods

RID

Not dangerous goods

MERCOSUR

Not dangerous goods

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

TSCA list : Not relevant
Not relevant

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
1-naphthylamine	134-32-7	100	*
2-naphthylamine	91-59-8	10	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity



SAFETY DATA SHEET



ROYCO 27 MIL-G-23827

Version: 1.1

Revision Date: 08/24/2015

Print Date: 10/13/2015

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
aniline	62-53-3	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Acute Health Hazard

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 WARNING! This product contains a chemical known to the State of California to cause cancer.

aniline	62-53-3
1-naphthylamine	134-32-7
2-naphthylamine	91-59-8

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

US.TSCA	On TSCA Inventory
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

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
<u>Mexico:</u>		+52 555 004 8763

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