

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : ROYCO 27 MIL-G-23827C
Product code : 00000000058322450

Manufacturer or supplier's details

Company : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
15275-1112 Pittsburgh, United States of America

Responsible Department : +1800LANXESS

Emergency telephone number : Chemtrec (800) 424-9300
International (703) 527-3887
Lanxess Emergency Phone (800) 410-3063

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant

Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Lubricant

Components

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 1 - < 5

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

- If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.
- In case of skin contact : Wash off with soap and water.
Remove contaminated clothing and shoes.
Continue to rinse for at least 20 minutes.
Get medical attention if symptoms appear.
Wash contaminated clothing before re-use.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Continue to rinse for at least 20 minutes.
Remove contact lenses.
Get medical attention if symptoms appear.
- If swallowed : Rinse mouth with water.
Do not induce vomiting unless directed to do by medical personnel.
Get medical attention if symptoms appear.

Most important symptoms and effects, both acute and delayed

- Symptoms : Skin: Causes irritation with symptoms of reddening, itching, and swelling.
May cause sensitisation by skin contact.
Once sensitized, an allergic skin reaction may occur with reddening, swelling, and rash when subsequently exposed to very low levels.
- Effects : Causes skin irritation.
May cause sensitisation by skin contact.
May cause an allergic skin reaction.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing : None known.

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version	Revision Date:	SDS Number:	Date of last issue: 10/11/2020
1.2	10/11/2020	203000016231	Country / Language: US / EN

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Specific hazards during fire-fighting : Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Metal oxides
Nitrogen oxides (NO_x)
Sulphur oxides

Further information : 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.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training.
Put on appropriate personal protection equipment.
Do not touch or walk through spilled material.
Evacuate personnel to safe areas.
Keep unnecessary and unprotected personnel from entering.
Provide adequate ventilation.
Do not breathe vapours/dust.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

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.
Persons with a history of skin sensitization to this product should not be employed in any process in which this product is used.

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

- Conditions for safe storage : Keep tightly closed in a dry, cool and well-ventilated place.
- Further information on storage conditions : Keep away from oxidizing agents.
- Further information on storage stability : Stable under recommended storage conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
lithium 12-hydroxystearate	7620-77-1	TWA (Inhalable particulate matter)	10 mg/m ³	ACGIH
		TWA (Respirable particulate matter)	3 mg/m ³	ACGIH
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m ³	ACGIH
tris(dipentylidithiocarbamate-S,S')antimony	15890-25-2	TWA	0.5 mg/m ³ (antimony)	OSHA Z-1
		TWA	0.5 mg/m ³ (antimony)	ACGIH

- 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

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

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

Colour : tan

Odour : mild, oily

Odour Threshold : No data available

pH : No data available

Melting point/range : No data available
No data available

Boiling point/boiling range : No data available
No data available

Flash point : > 396 °F / 202 °C
Method: open cup
No data available

Evaporation rate : No data available

Self-ignition : No data available

Burning number : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

Density : 0.92 g/cm³

Solubility(ies)
Water solubility : negligible

Solubility in other solvents : partly soluble
No data available

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

Auto-ignition temperature : not determined

Decomposition temperature : No data available

Self-Accelerating decomposition temperature (SADT) : Method: No information available.

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : 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

The most important known symptoms and effects are described in Section 2 and/or Section 4.

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

Information on likely routes of exposure

Inhalation
Eye contact
Skin contact
Skin Absorption

Acute toxicity

Not classified based on available information.

Product:

Acute inhalation toxicity : Acute toxicity estimate: > 200 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Result : No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Exposure routes : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Genotoxicity in vitro : Test system: Mammalian-Animal
Method: OECD Test Guideline 473
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Carcinogenicity - Assessment : Classified based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L)

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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 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.

Reproductive toxicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Effects on foetal development : Species: Rat
Application Route: Dermal
Dose: 0 - 2000 milligram per kilogram
Result: No teratogenic potential

STOT - single exposure

Not classified based on available information.

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Further information

Product:

Remarks : The product itself has not been tested.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :
Remarks: No data available

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 5,000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h

EL50 (Daphnia magna (Water flea)): > 100,000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 202

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
Remarks: Fresh water

Toxicity to microorganisms : IC50 (Desmodesmus subspicatus (green algae)): > 1,000 mg/l
Exposure time: 96 h

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

Persistence and degradability

Product:

Biodegradability : Result: No data available

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Biodegradability : aerobic
Concentration: 44 mg/l
Result: Inherently biodegradable.
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
GLP: yes

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Distillates (petroleum), hydrotreated heavy naphthenic:

Partition coefficient: n-octanol/water : log Pow: > 6

Mobility in soil

No data available

Other adverse effects

Product:

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

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

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

SAFETY DATA SHEET



ROYCO 27 MIL-G-23827C

Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

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

International Regulations

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

Hazard and Handling Notes. : Not dangerous cargo, Keep separated from foodstuffs

SECTION 15. REGULATORY INFORMATION

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	*
aniline	62-53-3	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

tris(dipentylidithio carbamato-S,S')antimony 15890-25-2 >= 1 - < 5 %

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version 1.2 Revision Date: 10/11/2020 SDS Number: 203000016231 Date of last issue: 10/11/2020
Country / Language: US / EN

tris[bis(2-ethylhex-yl)dithiocarbamat o-S,S']antimony 15991-76-1 $\geq 0.1 - < 1 \%$

US State Regulations

Massachusetts Right To Know

Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	1 - 5
aniline	62-53-3	< 0.01
1-naphthylamine	134-32-7	< 0.001

Pennsylvania Right To Know

Proprietary ester	Trade Secret	> 1
lithium 12-hydroxystearate	7620-77-1	> 1
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	1 - 5
tris(dipentyl)dithiocarbamato-S,S')antimony	15890-25-2	> 1
Metal compound	Trade Secret	< 1

California Prop. 65

WARNING: This product can expose you to chemicals including aniline, 1-naphthylamine, 2-naphthylamine, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

TSCA inventory

TSCA : All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



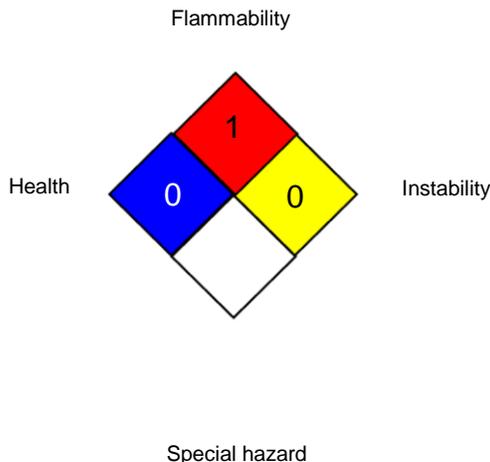
Version
1.2

Revision Date:
10/11/2020

SDS Number:
203000016231

Date of last issue: 10/11/2020
Country / Language: US / EN

NFPA 704:



HMIS® IV:

HEALTH	/	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA : 8-hour, time-weighted average
OSHA Z-1 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); EC_x - Concentration associated with x% response; EHS - Extremely Hazardous Substance; EL_x - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErC_x - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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;

SAFETY DATA SHEET

ROYCO 27 MIL-G-23827C



Version	Revision Date:	SDS Number:	Date of last issue: 10/11/2020
1.2	10/11/2020	203000016231	Country / Language: US / EN

(Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

Revision Date : 10/11/2020

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. 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 to be a guidance for processing and does not contain any 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. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.