



SAFETY DATA SHEET

ROYCO 64 MIL-G-21164D

Version: 1.0

Revision Date: 12/05/2014

Print Date: 03/17/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ROYCO 64 MIL-G-21164D

Product Use Description: Lubricants and lubricant additives

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 : Lubricants and lubricant additives

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

Form	viscous liquid
Colour	dark grey
Odour	mild oily

GHS Classification

Not a hazardous substance or mixture.

GHS Label element

Other hazards : None

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Not a hazardous substance or mixture.

Self-ignitable : No data available

Carcinogenicity:

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 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 (%)
lithium stearate	4485-12-5	>= 10 - < 20 %
molybdenum disulphide	1317-33-5	>= 5 - < 10 %
calcium bis(dinonylnaphthalenesulphonate)	57855-77-3	>= 1 - < 5 %
NJTS-46728100000-0001		>= 1 - < 5 %

SECTION 4. FIRST AID MEASURES

- If inhaled : Remove to fresh air.
Aspiration may cause pulmonary oedema and pneumonitis.
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.

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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : (on small fires)
Carbon dioxide (CO₂)
Dry chemical
Dry sand
Extinguishing media - large fires
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.
- 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.
- 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 : Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labelled containers.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.
Wear suitable protective equipment.
Avoid contact with skin, eyes and clothing.
Keep tightly closed.
Protect from contamination.

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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/m ³	ACGIH
molybdenum disulphide	1317-33-5	TWA (total dust)	15 mg/m ³	OSHA Z-1
		TWA (Inhalable fraction)	10 mg/m ³	ACGIH
		TWA (Respirable fraction)	3 mg/m ³	ACGIH
		TWA (Total dust)	10 mg/m ³	OSHA P0

Engineering measures : Use with adequate ventilation.

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 : When handling hot material, use heat resistant gloves.

Eye protection : Safety goggles

Skin and body protection : impervious clothing

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Use only with adequate ventilation.
Avoid breathing vapours, mist or gas.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : viscous liquid

Color : dark grey

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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	: > 190 °C Method: open cup
Auto-flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: Not applicable
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.9 - 0.95 g/cm ³
<u>Solubility(ies)</u>	
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	: Exposure to moisture. Contamination

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Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : Oxides of calcium
Sulphur oxides
Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity (Product) : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Acute inhalation toxicity
calcium bis(dinonylnaphthalenesulph
onate) (Component) : Acute toxicity estimate: > 15 mg/l
Method: Expert judgement

Acute dermal toxicity
calcium bis(dinonylnaphthalenesulph
onate) (Component) : LD50: > 5,000 mg/kg
Species: Rat
NJTS-46728100000-0001 (Component) : LD50: > 2,000 mg/kg
Species: Rat

Skin irritation
calcium bis(dinonylnaphthalenesulph
onate) (Component) : Species: Rabbit
Result: Irritating to skin.
Remarks: see user defined free text
NJTS-46728100000-0001 (Component) : Species: Rabbit
Result: No skin irritation
Method: OECD Test Guideline 404

Eye irritation
calcium bis(dinonylnaphthalenesulph
onate) (Component) : Species: Rabbit
Result: Irritating to eyes.
NJTS-46728100000-0001 (Component) : Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

Sensitisation
calcium bis(dinonylnaphthalenesulph
onate) (Component) : Patch Test
Species: Human
Classification: Did not cause sensitisation on laboratory animals.
NJTS-46728100000-0001 (Component) : Species: Guinea pig
Classification: Did not cause sensitisation on laboratory animals.
Method: OECD Test Guideline 406

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Aspiration toxicity (Product) : No aspiration toxicity classification

CMR effects

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

calcium bis(dinonylnaphthalenesulphonate) (Component) : Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

NJTS-46728100000-0001 (Component) : Mutagenicity: Not mutagenic in Ames Test.

Further information (Product) : No data is available on the product itself.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

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

Toxicity to daphnia and other aquatic invertebrates (Product) : Remarks:
No data is available on the product itself.

Toxicity to algae
NJTS-46728100000-0001 (Component) : EbC50: > 100 mg/l
Exposure time: 72 h
Species: Desmodesmus subspicatus (green algae)
Method: OECD Test Guideline 201

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

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Ecotoxicology Assessment

Results of PBT assessment (Product)

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

Additional ecological information (Product) : No information on ecology is available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

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

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

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

CERCLA Reportable Quantity

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

SARA304 Reportable Quantity

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

SARA 311/312 Hazards : No SARA Hazards

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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.

Quartz (SiO₂) 14808-60-7

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	On the inventory, or in compliance with the inventory
ENCS	Not 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

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.