



SAFETY DATA SHEET

ROYCO 49 MIL-DTL-23549D

Version: 1.0

Revision Date: 12/05/2014

Print Date: 04/22/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ROYCO 49 MIL-DTL-23549D

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 : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

Form	viscous liquid
Colour	black
Odour	No data available

GHS Classification

Skin sensitisation : Category 1
Carcinogenicity : Category 1B
Acute aquatic toxicity : Category 2
Chronic aquatic toxicity : Category 3

GHS Label element

Signal word : **Danger**

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Hazard pictograms



Hazard statements

: H317 May cause an allergic skin reaction.
H350 May cause cancer.
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Other hazards

: None

Precautionary statements

: **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
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.
P281 Use personal protective equipment as required.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
Storage:
P405 Store locked up.
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), 64742-65-0
solvent-dewaxed heavy
paraffinic

OSHA

Group 2A: Probably carcinogenic to humans
sodium nitrite 7632-00-0
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

Known to be human carcinogen



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Quartz (SiO₂)

14808-60-7

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
Residual oils (petroleum), hydrotreated	64742-57-0	>= 70 - < 90 %
molybdenum disulphide	1317-33-5	>= 5 - < 10 %
Graphite	7782-42-5	>= 1 - < 5 %
sodium nitrite	7632-00-0	>= 1 - < 5 %
NJTS#: 46728100000-0002 - Proprietary amine		>= 0.1 - < 1 %
Quartz (SiO ₂)	14808-60-7	>= 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 : Sensitisation
- Notes to physician : For specialist advice physicians should contact the Poisons Information Service.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : (on small fires)
Carbon dioxide (CO₂)
Dry chemical
Dry sand
Extinguishing media - large fires
Water mist
Foam



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- 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.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- 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 : 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	Permissible	Basis
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		exposure	concentration	
Residual oils (petroleum), hydrotreated	64742-57-0	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
molybdenum disulphide	1317-33-5	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (Inhalable fraction)	10 mg/m3	ACGIH
		TWA (Respirable fraction)	3 mg/m3	ACGIH
		TWA (Total dust)	10 mg/m3	OSHA P0
Graphite	7782-42-5	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Respirable fraction)	2 mg/m3	ACGIH
		TWA (Respirable)	2.5 mg/m3	NIOSH REL
		TWA (Dust)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Total dust)	10 mg/m3	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3	OSHA P0
		TWA (respirable dust fraction)	2.5 mg/m3	OSHA P0
NJTS#: 46728100000-0002 - Proprietary amine		TWA	10 ml/m3	ACGIH
Quartz (SiO2)	14808-60-7	TWA (total dust)	30 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
		TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable dust)	0.05 mg/m3	NIOSH REL
		TWA	0.1 mg/m3	OSHA P0



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		(respirable dust fraction)		
		TWA (Respirable fraction)	0.025 mg/m3	ACGIH

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 : Impervious butyl rubber 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.
Use only with adequate ventilation.
Avoid breathing vapours, mist or gas.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : viscous liquid
- Color** : black
- Odor** : No data available
- 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** : > 200 °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



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Relative vapour density : No data available

Relative density : 0.99

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 : Sodium oxides
Sulphur oxides
Carbon oxides
Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity (Product) : Acute toxicity estimate: 4,545 mg/kg

Method: Calculation method

Acute dermal toxicity
NJTS#: 46728100000-0002 - : LD50 Dermal: > 5,000 mg/kg
Proprietary amine Species: Rabbit



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(Component)

Skin irritation
NJTS#: 46728100000-0002 - : Species: Rabbit
Proprietary amine : Result: No skin irritation
(Component) : Method: Draize Test

Eye irritation (Product) : Remarks: May irritate eyes.

Sensitisation (Product) : Remarks: May cause sensitisation by skin contact.

Aspiration toxicity (Product) : No aspiration toxicity classification

CMR effects
NJTS#: 46728100000-0002 - : Carcinogenicity: Animal testing did not show any carcinogenic effects.
Proprietary amine : Mutagenicity: Animal testing did not show any mutagenic effects., Tests
(Component) : on bacterial or mammalian cell cultures did not show mutagenic effects.

Quartz (SiO₂) (Component) : Carcinogenicity: Human carcinogen.
Mutagenicity: Animal testing did not show any mutagenic effects.

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
NJTS#: 46728100000-0002 - : EC50: 0.68 mg/l
Proprietary amine : Exposure time: 48 h
(Component) : Species: Daphnia magna (Water flea)
semi-static test Analytical monitoring: yes

Toxicity to bacteria
NJTS#: 46728100000-0002 - : EC50: 2 mg/l
Proprietary amine : Exposure time: 48 h
(Component) : Species: Protozoa



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EC50: > 10,000 mg/l
Exposure time: 3 h
Species: Bacteria

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
NJTS#: 46728100000-0002 - : NOEC: 0.02 mg/l
Proprietary amine (Component) 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)
No data available

Additional ecological information (Product) : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : In accordance with local and national regulations.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of wastes in an approved waste disposal facility.

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

SECTION 14. TRANSPORT INFORMATION

ADR

Not dangerous goods



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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

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium nitrite	7632-00-0	100	4545

SARA304 Reportable Quantity

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

SARA 311/312 Hazards : Chronic Health Hazard
Acute Health Hazard

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:
aniline 62-53-3 0.0025

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:
sodium nitrite 7632-00-0 2.2

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
aniline 62-53-3

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.



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

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