



SAFETY DATA SHEET

ROYCO 22CF MIL-PRF-81322G

Version: 1.2

Revision Date: 08/24/2017

Print Date: 11/08/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: ROYCO 22CF MIL-PRF-81322G
CHROMATE FREE MULTI-FUNCTION & PURPOSE GREASE

Product Use Description: Grease

Company: Manufacturer
Anderol Specialty Lubricants, a division of Lanxess Solutions US Inc.
215 Merry Lane
East Hanover, NJ
07936
United States of America (USA)

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

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

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 : Grease

Restrictions on use : None known.

SECTION 2. HAZARDS IDENTIFICATION

Form	viscous liquid
Colour	dark brown
Odour	slight

GHS Classification

Skin irritation : Category 2
Eye irritation : Category 2A
Carcinogenicity : Category 1B
Acute aquatic toxicity : Category 2
Chronic aquatic toxicity : Category 3

GHS label elements

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Signal word : **Danger**

Hazard pictograms :



Hazard statements : H315 Causes skin irritation.
H319 Causes serious eye irritation.
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.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
P280 Wear protective gloves.
P281 Use personal protective equipment as required.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash 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 2A: Probably carcinogenic to humans
sodium nitrite 7632-00-0



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OSHA Group 3: Not classifiable as to its carcinogenicity to humans
Solvent naphtha (petroleum), 64742-95-6
light arom.
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
Quartz (SiO₂) 14808-60-7

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (%)
NJTS-46728100000-0001		>= 5 - < 10 %
sodium nitrite	7632-00-0	>= 1 - < 5 %
Solvent naphtha (petroleum), light arom.	64742-95-6	>= 1 - < 5 %
2-tert-butylphenol	88-18-6	>= 1 - < 5 %
Quartz (SiO ₂)	14808-60-7	>= 0.1 - < 1 %

SECTION 4. 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.
Get medical attention.

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
Flush with plenty of water.
If eye irritation persists, consult a specialist.

If swallowed : If swallowed, DO NOT induce vomiting.
Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed : irritant effects



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Notes to physician : For specialist advice physicians should contact the Poisons Information Service.

SECTION 5. FIREFIGHTING MEASURES

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

Unsuitable extinguishing media : Water

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

Specific extinguishing methods : In the event of fire, cool tanks with water spray.

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Environmental precautions : Do not contaminate water.
Do not flush into surface water or sanitary sewer system.
Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up : Shovel into suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Keep container closed when not in use.
Ensure all equipment is electrically grounded before beginning transfer operations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated



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place.

Materials to avoid : Strong acids and strong bases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	200 mg/m3	ACGIH
		TWA	400 ppm 1,600 mg/m3	OSHA P0
Quartz (SiO ₂)	14808-60-7	TWA (respirable)	250 mppcf / %SiO ₂ +5	OSHA Z-3
		TWA (respirable)	10 mg/m3 / %SiO ₂ +2	OSHA Z-3
		TWA (Respirable dust)	0.05 mg/m3	NIOSH REL
		TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
		TWA (Respirable fraction)	0.025 mg/m3	ACGIH
		PEL (Total dust)	0.3 mg/m3	CAL PEL
		PEL (respirable dust fraction)	0.1 mg/m3	CAL PEL
		TWA (Respirable dust)	0.05 mg/m3	OSHA Z-1

Engineering measures : Use with adequate ventilation.
Local ventilation is needed in the presence of airborne mists.
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Respiratory protection : not required under normal use
In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection



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Remarks : Neoprene gloves

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

Skin and body protection : Impervious clothing

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : viscous liquid

Color : dark brown

Odor : slight

Odour Threshold : No data available

pH : Not applicable

Melting point/range :
No data available

Boiling point/boiling range : Not applicable

Evaporation rate : No data available

Flash point : > 230 °C
Method: open cup

Auto-flammability : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 0.88

Solubility(ies)

Solubility in other solvents : No data available

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

Auto-ignition temperature : Not applicable

Thermal decomposition : No data available

Viscosity



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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 : Heat
Contamination

Incompatible materials : Strong acids and strong bases

Hazardous decomposition products : Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: 2,764 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 10 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

NJTS-46728100000-0001:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Solvent naphtha (petroleum), light arom.:

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



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Acute inhalation toxicity : LC50 (Rat): > 5.2 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Remarks: Irritating to respiratory system.

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg

2-tert-butylphenol:

Acute oral toxicity : LD50 (Rat): 440 mg/kg

Acute inhalation toxicity : LC50 (Rat): 1,070 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rat): 705 mg/kg

Skin corrosion/irritation

Components:

NJTS-46728100000-0001:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

2-tert-butylphenol:

Species: Rabbit
Exposure time: 4 h
Method: Draize Test
Result: Causes burns.

Serious eye damage/eye irritation

Components:

NJTS-46728100000-0001:

Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

2-tert-butylphenol:

Species: Rabbit
Result: Severe irritation
Exposure time: 4 h
Method: Draize Test

Respiratory or skin sensitisation

Components:

NJTS-46728100000-0001:

Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals.



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Method: OECD Test Guideline 406

Germ cell mutagenicity

Components:

NJTS-46728100000-0001:

Germ cell mutagenicity - Assessment : Not mutagenic in Ames Test

Quartz (SiO₂):

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo : Test Type: in vivo assay
Result: negative

Carcinogenicity

IARC

Group 2A: Probably carcinogenic to humans

sodium nitrite 7632-00-0

Group 3: Not classifiable as to its carcinogenicity to humans

Solvent naphtha (petroleum), light arom. 64742-95-6

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

Known to be human carcinogen

Quartz (SiO₂) 14808-60-7

STOT - repeated exposure

Components:

Quartz (SiO₂):

Exposure routes: Inhalation

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Product:

No aspiration toxicity classification



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Further information

Product:

Remarks: 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 : Remarks:
aquatic invertebrates : No data available
(Product)

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

2-tert-butylphenol : EC50: 3.1 mg/l
(Component) : Exposure time: 72 h
Species: Algae

Elimination information (persistence and degradability)

Bioaccumulation (Product) : Remarks:
No data available

Mobility (Product) : Remarks:
No data available

Biodegradability (Product) : Result: No data available

Ecotoxicology Assessment

Results of PBT assessment (Product)

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

Additional ecological : There is no data available for this product.
information (Product) : Harmful to aquatic organisms, may cause long-term adverse
effects in the aquatic environment.



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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

- Waste from residues : Dispose of waste material in compliance with all federal, state, and local regulations.
- Contaminated packaging : Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

- UN/ID No. : UN 3077
- Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol)
- Class : 9
- Packing group : III
- Labels : Miscellaneous

IMDG-Code

- UN number : UN 3077
- Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.
(2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol)
- Class : 9
- Packing group : III
- Labels : 9
- EmS Code : F-A, S-F
- Marine pollutant : yes

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

- UN/ID/NA number : UN 3077
- Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID,
N.O.S.
(2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol)
- Class : 9
- Packing group : III
- Labels : CLASS 9
- ERG Code : 171
- Marine pollutant : yes(2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol)
- Remarks : Shipment by ground under DOT is non-regulated; however it



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may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

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	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA304 Reportable Quantity

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

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

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

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

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:

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



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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	Not in compliance with the inventory
US.TSCA	On TSCA 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.