SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: ROYCO 43

(SAE-AMS-G-4343C) PNEUMATIC SYSTEMS GREASE

Product Use Description: Lubricant

Company: 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: None known.

SECTION 2. HAZARDS IDENTIFICATION

Form: viscous liquid
Colour: tan
Odour: mild hydrocarbon-like

GHS Classification

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

GHS Label element

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
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.
SAFETY DATA SHEET

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Decene, tetramer, mixed with 1-decene trimer, hydrogenated</td>
<td>68649-12-7</td>
<td>&gt;= 50 - &lt; 70 %</td>
</tr>
<tr>
<td>lithium stearate</td>
<td>4485-12-5</td>
<td>&gt;= 10 - &lt; 20 %</td>
</tr>
<tr>
<td>calcium bis(dinonylnaphthalenesulphonate)</td>
<td>57855-77-3</td>
<td>&gt;= 1 - &lt; 5 %</td>
</tr>
<tr>
<td>NJTS#: 46728100000-0002 - Proprietary amine</td>
<td></td>
<td>&gt;= 0.1 - &lt; 1 %</td>
</tr>
</tbody>
</table>

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.

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

If swallowed: 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
Foam
Water mist

Unsuitable extinguishing media: High volume water jet

Specific hazards during firefighting: Do not use a solid water stream as it may scatter and spread fire.
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: Scrape up. 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. Avoid contact with skin, eyes and clothing. Wear suitable protective equipment. Keep tightly closed. Protect from contamination.

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

Materials to avoid: Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Form of exposure</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Decene, tetramer, mixed with 1-decene trimer, hydrogenated</td>
<td>68649-12-7</td>
<td>TWA (Mist)</td>
<td>5 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Mist)</td>
<td>5 mg/m³</td>
<td>NIOSH REL</td>
</tr>
</tbody>
</table>
Personal protective equipment

**Respiratory protection**: In the case of dust or aerosol formation use respirator with an approved filter.

**Hand protection**

**Remarks**: Impervious gloves

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

**Skin and body protection**: Impervious clothing

**Hygiene measures**: If high pressure forces the product under the skin get immediate medical attention!

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Viscous liquid</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Tan</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Mild hydrocarbon-like</td>
</tr>
<tr>
<td><strong>Odour Threshold</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Melting point/range</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Boiling point/boiling range</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>&gt; 200 °C</td>
</tr>
<tr>
<td>Method: open cup</td>
<td></td>
</tr>
</tbody>
</table>

**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**: 0.8

**Solubility(ies)**

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<table>
<thead>
<tr>
<th>Compound</th>
<th>ST (Mist)</th>
<th>TWA (Mist)</th>
<th>NIOSH REL</th>
<th>TWA</th>
<th>STW</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium stearate</td>
<td>10 mg/m3</td>
<td>5 mg/m3</td>
<td>OSHA P0</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td>NJTS#: 46728100000-0002 - Proprietary amine</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

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**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**: Stable under normal conditions.
- **Possibility of hazardous reactions**: Hazardous polymerisation does not occur.
- **Conditions to avoid**: Contamination
- **Incompatible materials**: Oxidizing agents
- **Hazardous decomposition products**: Carbon oxides, Metal oxides

**SECTION 11. TOXICOLOGICAL INFORMATION**

- **Acute oral toxicity**
  - **calcium bis(dinonylnaphthalenesulphonate)** (Component)
    - NJTS#: 46728100000-0002
    - LD50: > 5,000 mg/kg
  - **Proprietary amine** (Component)
    - LD50: 1,625 mg/kg
    - Species: Rat

- **Acute inhalation toxicity**
  - **calcium bis(dinonylnaphthalenesulphonate)** (Component)
    - Acute toxicity estimate: > 15 mg/l
    - Method: Expert judgement

- **Acute dermal toxicity**
  - **calcium bis(dinonylnaphthalenesulphonate)** (Component)
    - LD50: > 5,000 mg/kg
    - Species: Rat
### SAFETY DATA SHEET

**ROYCO 43**

**Version:** 1.1  
**Revision Date:** 01/08/2015  
**Print Date:** 04/27/2015

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Dermal: &gt; 5,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin irritation</td>
<td></td>
</tr>
<tr>
<td>1-Decene, tetramer, mixed with 1-decene trimer, hydrogenated</td>
<td>Result: No skin irritation</td>
</tr>
<tr>
<td>calcium bis(dinonylnaphthalenesulphonate)</td>
<td>Species: Rabbit</td>
</tr>
<tr>
<td>Remarks: see user defined free text</td>
<td></td>
</tr>
</tbody>
</table>

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

| Eye irritation |
| 1-Decene, tetramer, mixed with 1-decene trimer, hydrogenated | Result: No eye irritation |
| calcium bis(dinonylnaphthalenesulphonate) | Species: Rabbit |
| Result: Irritating to eyes. |

| NJTS#: 46728100000-0002 - Proprietary amine (Component) |
| Species: Rabbit |
| Result: No eye irritation |
| Method: OECD Test Guideline 405 |

| Sensitisation |
| calcium bis(dinonylnaphthalenesulphonate) | Patch Test |
| Species: Human |
| Classification: Did not cause sensitisation on laboratory animals. |

| NJTS#: 46728100000-0002 - Proprietary amine (Component) |
| Maximisation Test (GPMT) |
| Species: Guinea pig |
| Classification: May cause sensitisation by skin contact. |
| Result: May cause sensitisation by skin contact. |
| Patch Test |
| Species: Human |
| Classification: May cause sensitisation by skin contact. |
| Result: The product is a skin sensitizer, sub-category 1A. |

| Aspiration toxicity (Product) | No aspiration toxicity classification |

| CMR effects |
| 1-Decene, tetramer, mixed with 1-decene trimer, hydrogenated (Component) |
| Carcinogenicity: Animal testing did not show any carcinogenic effects. |
| Mutagenicity: Animal testing did not show any mutagenic effects. |
| Teratogenicity: No effects on or via lactation, Did not show teratogenic effects in animal experiments. |
Reproductive toxicity: No toxicity to reproduction

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#: 46728100000-0002 - Proprietary amine (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.

Further information (Product) : There is no data available for this product.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

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

Ecotoxicity to daphnia and other aquatic invertebrates

1-Decene, tetramer, mixed with 1-decene trimer, hydrogenated (Component) : EC50: 190 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)

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

Toxicity to bacteria

NJTS#: 46728100000-0002 - Proprietary amine (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)

NJTS#: 46728100000-0002 - Proprietary amine (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): There is no data available for this product.

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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aniline</td>
<td>62-53-3</td>
<td>5000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aniline</td>
<td>62-53-3</td>
<td>5000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: 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 |

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

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>Brazil</td>
<td>+55 113 711 9144</td>
</tr>
<tr>
<td></td>
<td>All other countries</td>
<td>+44 (0) 1235 239 670</td>
</tr>
<tr>
<td>Mexico</td>
<td></td>
<td>+52 555 004 8763</td>
</tr>
</tbody>
</table>

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