

Safety Data Sheet (SDS)

Royal Nova Grease



SECTION 1: IDENTIFICATION OF THE SUBSTANCE /MIXTURE AND OF THE COMPANY /UNDERTAKING

1.1 GHS Product Identifier

Product Name: Royal Nova Grease

1.2 Other Means of Identification:

Product Code: 945 RL, 945 RA, 945 RB, 945 RC

Synonyms: Lubricating Grease

1.3 Relevant identified uses of the substance or mixture and uses advised against

Product Use: Lubrication

Uses advised against: No information available

1.3 Details of supplier of safety data sheet

Manufacturers/Supplier: Royal Mfg Co LP
516 S, 25th West Ave , Tulsa, OK 74127

Telephone Number: (918) 584 - 2671

Emergency Telephone Number: (918) 584 - 2671

Email Address: Info@royalmfg.com

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance of mixture

OSHA Hazard Communication Standard: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200

2.1 GHS Label Element, Including Precautionary Statements

Emergency Overview

Signal Word : Warning

Hazardous Statements

- Causes serious eye irritation
- May cause skin irritation



Appearance : Red

Physical State : Semi-Solid

Odor : Slight Petroleum

2.3 Precautionary Statements:

Prevention:

- Wash face , hands and any exposed skin thoroughly after handling
- Wear eye / face protection

General advice: None

Eyes

- If in eyes: Rinse cautiously with water for several times . Remove contact lenses , if present and possible to do so .
- If eye irritation persists , get medical attention

Storage: None

Disposal: None

Hazard not otherwise classified (HNOC): Not Applicable

Other Information:

13.91 % of the mixture consists of ingredient(s) with unknown toxicity

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms:

Grease

| Chemical Name | CAS # | Weight % | Trade Secret |
|---|------------|----------|--------------|
| Petroleum distillate , hydrotreated heavy naphthenic | 64742-52-5 | 20-40 | * |
| Petroleum distillate , hydrotreated heavy paraffinic | 64742-54-7 | 20-30 | * |
| Crystalline Silica | 14808-60-7 | ≤ 0.5 | * |
| Antimony, tris(diphenylcarbamodithioato-S,S')-(OC-6-11) | 15890-25-2 | 1-5 | * |

**The exact percentage of ingredients may have been held as trade secret and there may be batch to batch variation in their quantities*

Additional information:

As per 29 CFR 1910.1200 paragraph (i), formulation is considered as trade secret and therefore specific chemical names and their percentages of components used have not been disclosed. The details about their specific chemical names and their percentages may be provided on request to health professionals, authorized representatives of regulatory authority, employees concerned in accordance with applicable provisions of this paragraph.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information: Not expected to be health hazard if used under normal conditions

Inhalation: Under normal conditions of intended use, this material is not expected to be inhalation hazard. If some symptom exists, remove to fresh air. If not breathing, give artificial respiration. Get medical attention

Skin Contact: Remove contaminated clothes. Flush exposed area with plenty of water followed by washing by soap, if available. If persistent irritation occurs, obtain medical attention. If product is injected into or under the skin due to any reason, the victim, regardless of size or appearance of wound, victim should be brought immediately to medical attention for emergency surgical needs. Though the initial symptoms due to high pressure injection may be minimal / absent, early surgical treatment may significantly reduce the extent of injury.

Eye Contact: Immediately flush with large quantities of cool water for at least 15 minutes including under eyelids. Keep eye wide open while rinsing. If symptoms persist get medical attention.

Ingestion: Drink plenty of water. In general no treatment is necessary unless large quantities are swallowed; however, it's advisable to take medical attention. Do not induce vomiting unless directed by medical personnel. Do not give anything by mouth by an unconscious person.

Most Important Symptoms /Effects Acute and Delayed:

Most important symptoms / effects: No information available

Indication of Immediate Medical Attention and Special Treatment Needed , If Necessary :

Note to Physician: Treat symptomatically

Self-protection for first aider: When administering the first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media:

Suitable extinguishing media: Water Spray (fog), dry chemical, foam, or carbon dioxide, sand to extinguish flames.

Unsuitable extinguishing media: Water stream may splash burning liquid and spread fire.

5.2 Special hazard arising from the substances or mixture: Hazardous combustion product may include a complex mixture of airborne solid and liquid particulates and gases (smoke) , carbon monoxide , unidentified inorganic and organic compounds.

Explosion Data:

Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: None

5.3 Advice to firefighters: Proper protective equipment include chemical resistant gloves to be worn, chemical resistant suit is recommended when large contact with spill product is expected. Self-contained breathing apparatus (SCBA) must be worn when approaching a fire in confined area. Select

the fire fighters clothing approved by relevant standard e.g., MSHA/NIOSH approved or equivalent and full protective gear .

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch and walk through spill area. Do not touch damaged container or spilled material unless wearing appropriate protective clothing/equipment. Ventilate the closed area.

6.2 Emergency procedures

Isolate the spill / leak area in all directions for about 50 meters (150 ft) for liquids and about 25 meters (75 ft.) for solids and semi-solids. Eliminate all ignition sources (no smoking, flares, sparks / flames in close vicinity). Keep unauthorized person away and ventilate closed space before entering.

6.3 Environmental procedures:

Use appropriate measures for containment of spilled material to the environment. Prevent from entering/ spreading to drain, water, river, ditches by using sand, earth, floor dryers or other appropriate barriers.

6.4 Methods and materials for containment and cleaning up

Shovel into suitable properly marked container for disposal or reclamation in accordance with local regulations.

6.5 Reference to other sections

Refer to section 8 – exposure control / personal protection and section 13- disposal considerations

SECTION 7: HANDLING AND STORAGE

7.1 General Precautions

Store in well-ventilated area, if risk on vapor inhalation is there. Use the information in this data sheet as input for risk management arising due to local conditions which help to manage safe handling of this product.

7.2 Precautions for safe handling

Avoid prolonged and repeated contact with skin. Avoid inhaling the vapors/mist. When handling the drums, kegs, pails etc., proper safety shoes, and other protective clothes, safety glasses etc. should be worn. Dispose appropriately any contaminated rags/material as per prevailing local allowable practices. Keep containers in closely tight and, cool and well ventilated areas.

7.3 Conditions for safe storage, including any incompatibilities

Keep containers tightly close, well-ventilated areas but covered, avoiding contact with rain or other water ingress possibilities. Keep the storage place cool preferably <120 °F / <50 °C. Higher temperature may create pressure buildup inside container and chances of container busting or leakage may occur under aggravated conditions. Keep away from other oxidizing and incompatible materials.

Incompatible Products: Strong oxidizing agents . Strong reducing agents

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure Guidelines

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|--------------------------------------|--------------------------------------|-------------------|
| Petroleum distillate , hydrotreated heavy paraffinic | TWA: 5 mg/m3 as oil mist, mineral | TWA: 5 mg/m3 as oil mist, mineral | - |
| Crystalline Silica (Quartz) | 0.025 mg/m3 | 0.1 mg/m3 respirable fraction | - |

Immediate dangerous to life or health. ACGIH TLV : American Conference of Government Industrial Hygienists – Threshold Limit Values . OSHA PEL: Occupational Safety and Health Administration – Permissible Limits .

Other Exposure Guidelines: Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F. 2d 962. (11th Cir., 1992).

8.2 Appropriate engineering controls

Engineering Measures: Showers
Eyewash stations
Ventilation systems

8.3 Individual protection measures, such as personal protective equipment:

Eye/Face Protection: Safety glasses with side-shields. Risk of contact, wear: Chemical splash goggles.

Skin and Body Protection: Impervious clothing. Protective gloves.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Hygiene Measures When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

8.4 Personal protective equipment pictograms



8.5 Environmental Exposure controls

Minimize release to the environment. Follow best practices for site management and disposal of waste as per local regulations

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on physical and chemical properties

Material description

| | |
|----------------|--------------------|
| Appearance | Semi-solid |
| Color | Red |
| Odor | Slight hydrocarbon |
| Odor threshold | Data not available |

General properties

| | |
|---------------------------------|------------------------|
| Boiling point | No data available |
| pH | Not applicable |
| Specific gravity (15 °C) | 0.87, 7.506 (lbs/gal) |
| Flash point, COC, °F/°C | 257 / 495 |
| Upper/lower flammability limits | No data available |
| Auto-ignition temperature | No data available |
| Flammability | No data available |
| VOC, % wt., ASTM D-972 | < 1 % |
| Vapor pressure @ ambient temp. | < 0.13 kPa (< 1 mm Hg) |
| Vapor density (air =1) | < 1 |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

Other Information

| | |
|-------------------------|--|
| Electrical conductivity | Though no data available, this material is not expected to be a static accumulator |
|-------------------------|--|

SECTION 10: STABILITY AND REACTIVITY

| | |
|--|--|
| 10.1 Reactivity : | No reactivity is expected under normal conditions of intended use. However, under high temperature or adverse operating conditions thermal / chemical decomposition of the product may be possible |
| 10.2 Chemical Stability : | No hazardous reaction is expected under normal conditions of temperature and pressure |
| 10.3 Possibility of hazardous reactions | None under normal processing |
| 10.4 Hazardous Polymerization | Not likely to occur |
| 10.5 Conditions to avoid | Extreme temperature and direct sunlight / heat /flame |
| 10.6 Incompatible materials | Strong oxidizing agents or strong reducing agents |
| 10.7 hazardous decomposition products | Carbon dioxides , Nitrogen oxides (NOX) , Sulfur oxides |

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on Likely Routes of Exposure**

Inhalation: There is no data available for this product.

Eye Contact: Causes serious eye irritation.

Skin Contact: Causes skin irritation

Ingestion: There is no data available for this product

| Chemical name | LD 50 Oral | LD 50 Dermal | LC 50 inhalation |
|------------------------------|------------|--------------|------------------|
| Crystalline Silica (Quartz) | 500 mg/kg | - | - |

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure :

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. The classification listed below for the petroleum distillates in this product pertains to those that contain more than 3% DMSO extract as measured by IP 346. The petroleum distillates in this product do not meet that criteria to be classified as carcinogens.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---|-------|---------|---------|------|
| Petroleum distillate , hydrotreated heavy naphthenic | A2 | Group 1 | - | X |
| Petroleum distillate , hydrotreated heavy paraffinic | A2 | Group 1 | - | X |
| Crystalline Silica (Quartz) | A2 | Group 1 | Group A | - |

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 – suspected human carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

OSHA: (Occupational Safety & Health Administration)

x- Present

Reproductive Toxicity: No information available.

STOT - single exposure: No information available.

STOT - repeated exposure: No information available.

Aspiration Hazard: No information available

Numerical measures of toxicity – Product:

Acute Toxicity: 13.91 % of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of GHS document

SECTION 12: ECOLOGICAL INFORMATION

Eco-toxicity :

The environmental impact of this product has not been fully investigated.

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Toxicity to Micro-organisms | Daphnia Magna (Water Flea) |
|---------------|-------------------|------------------|-----------------------------|-----------------------------|
| | | | | |

| | | | | |
|---|--|--|--|--|
| Petroleum distillate , hydrotreated heavy naphthenic 64742-52-5 | | LC50 : >5000 mg/l, 96 hrs (oncorhynchus mykiss) | | EC 50 : >1000 mg/l, 48 hrs (Daphnia magna) |
| Petroleum distillate , hydrotreated heavy paraffinic 64742-54-7 | | LC50 : >5000 mg/l, 96 hrs (oncorhynchus mykiss) | | EC 50 : >1000 mg/l, 48 hrs (Daphnia magna) |

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Other Adverse Effects: No information available

SECTION 13: DISPOSAL INFORMATION

13.1 Waste treatment methods

Product disposal

Try to minimize the product waste by using best applicable practices. It is the responsibility of the waste generator to evaluate the waste classification and appropriate disposal methodology in accordance with the applicable regulation. Do not dispose in to environment, in drain or in river / ponds / water reservoirs.

Container disposal

To be disposed in accordance with local prevailing and allowable regulations.

SECTION 14: TRANSPORT INFORMATION

| | Bulk shipping | Non-bulk shipping | Identification # | Hazardous class |
|------------------------|---|--------------------------|-------------------------|------------------------|
| US DOT | Not required | Not required | Not required | Not required |
| Canadian TDG | Not required | Not required | Not required | Not required |
| European | Not required | Not required | Not required | Not required |
| ADR, IMDG, IATA-DGR | Not classified as hazardous product for land, sea and air transport | | | |

SECTION 15: REGULATORY INFORMATION

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/ NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

OSHA Hazard Communication Standard: This material is considered hazardous in accordance with OSHA HAzCom 2012, 29 CFR 1910.1200.

U.S. Federal Regulations

Section 313 of Title III ,of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard: Yes
Chronic Health Hazard: Yes
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactive Hazard; No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42

CERCLA :

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). However , there may possibly be specific reporting requirements at the county , regional, or state level related to releases of this material.

U.S. State Regulations:

California Proposition 65

Crystalline Silica (quartz) is listed as carcinogen under Proposition 65 chemicals:

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list

| Chemical Name | New Jersey | Pennsylvania | Massachusetts | Illinois | Rhode Island |
|---|-------------------|---------------------|----------------------|-----------------|---------------------|
| Petroleum distillate , hydrotreated heavy naphthenic 64742-52-5 | | | | x | |
| Petroleum distillate , hydrotreated heavy naphthenic 64742-54-7 | | | | x | |
| Crystalline Silica | X | X | X | x | x |

U.S. EPA Label Information:

EPA Pesticide Registration Number : Not applicable

International Inventories:

WHMIS: This product is not a controlled product.

Canadian NPRI: none of the components are listed

CEPA toxic substance: none of the components are listed

Europe (EINECS/ELINCS/NLP) : All components are listed or exempted from EU listing requirements

.Australia Inventory (AICS) : All components are listed or exempted

China Inventory (IECSC) : All components are listed or exempted

Japan Inventory: All components are listed or exempted

Korea Inventory: All components are listed or exempted

Thailand Inventory: All components are listed or exempted

Malaysia Inventory (EHS Register) : Not determined

New Zealand inventory of Chemicals (NZIoC) : All components are listed or exempted

Philippines Inventory (PICCS) : All components are listed or exempted

SECTION 16: OTHER INFORMATION

| | NFPA | HMIS | KEY |
|-------------------|------|------|--------------|
| Health | 2 | 2 | 0 = Minimal |
| Flammability | 0 | 0 | 1 = slight |
| Instability | 0 | 0 | 2 = Moderate |
| Physical & Hazard | - | 0 | 3 = Serious |

This safety data sheet contains the following revisions:

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Prepared by: Riverside Laboratories

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