

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : ROYCO 481 MIL-PRF-6081

Product code : 000000000058322667

Manufacturer or supplier's details

Company : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, Pennsylvania 15275-1112

Responsible Department : (800) LANXESS
(412) 809-1000
lanxesshes@lanxess.com

Emergency telephone : CHEMTREC (800) 424-9300 or
(703) 527-3887 (Outside U.S.A) and mention CCN12916.
Lanxess Emergency Phone (800) 410-3063.

Recommended use of the chemical and restrictions on use

Recommended use : Additive for lubricants

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Specific target organ toxicity : Category 3 (Respiratory system)
- single exposure

Aspiration hazard : Category 1

GHS label elements

Hazard pictograms : The hazard pictograms consist of two red diamond-shaped symbols. The first symbol contains a black silhouette of a human head and neck with a white starburst on the neck, representing a health hazard. The second symbol contains a black exclamation mark, representing a general hazard.

Signal Word : Danger

Hazard Statements : May be fatal if swallowed and enters airways.

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Precautionary Statements : May cause respiratory irritation.

Prevention:
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
Use only outdoors or in a well-ventilated area.

Response:
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
Do NOT induce vomiting.

Storage:
Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

| Chemical name | CAS-No. | Concentration (% w/w) |
|--|------------|-----------------------|
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | >= 70 - < 90 |
| Paraffin oils (petroleum), catalytic dewaxed light | 64742-71-8 | >= 30 - < 50 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

General advice : Do not leave the victim unattended.

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Wash off with soap and water.
Get medical attention if symptoms occur.

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Get medical attention if symptoms appear.
- If swallowed : Get medical attention immediately.
Rinse mouth with water.
Do not induce vomiting unless directed to do by medical personnel.
Aspiration hazard if swallowed - can enter lungs and cause damage.
If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
If unconscious, place in recovery position and get medical attention immediately.
Maintain open airway.
Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed

- Symptoms : May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.
Ingestion and/or vomiting may cause aspiration into the lungs resulting in chemical pneumonitis (inflammation of the lungs).
- Effects : May be fatal if swallowed and enters airways.
May cause respiratory irritation.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire fighting : Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.
Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon monoxide
Carbon dioxide (CO₂)

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

- Further information : No action shall be taken involving any personal risk or without suitable training.
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
- Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
-

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Do not touch or walk through spilled material.
Provide adequate ventilation.
Put on appropriate personal protection equipment.
- Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so.
Move containers from spill area.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Dispose of wastes in an approved waste disposal facility.
Do not allow into the sewerage system, surface waters or groundwater or into the soil.
-

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid inhalation, ingestion and contact with skin and eyes.
Remove contaminated clothing and protective equipment before entering eating areas.
Workers should wash hands and face before eating, drinking and smoking.
Put on appropriate personal protection equipment.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
- Conditions for safe storage : Store in accordance with local regulations.
Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
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SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Keep containers sealed until ready for use.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Do not store in unlabeled containers.
Use appropriate container to avoid environmental contamination.
Empty containers retain residue and can be dangerous.
Do not reuse container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|--|------------|------------------------------------|--|-------|
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | TWA (Inhalable particulate matter) | 5 mg/m ³ | ACGIH |
| Paraffin oils (petroleum), catalytic dewaxed light | 64742-71-8 | TWA (Inhalable particulate matter) | 5 mg/m ³ | ACGIH |

Engineering measures : If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal protective equipment

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline.
NIOSH approved, air-purifying organic vapor respirator.

Hand protection

Material : Polychloroprene - CR
Wearing time : < 60 min

Remarks : Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Safety glasses with side-shields

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
Appropriate techniques should be used to remove potentially contaminated clothing.
Wash contaminated clothing before reusing.
Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : oily

Physical state : liquid

Color : light yellow

Odor : hydrocarbon-like

Odor Threshold : No data available

pH : No data available

Melting point/range : Not applicable

Boiling point/boiling range : No data available

Flash point : 289 °F / 143 °C
Method: open cup

Evaporation rate : No data available

Self-ignition : No data available

Burning number : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Relative vapor density : No data available

Relative density : 0.88

Density : 0.8 g/cm³ (68 °F / 20 °C)

Solubility(ies)
Water solubility : slightly soluble

Solubility in other solvents : No data available

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

Decomposition temperature : No data available

Self-Accelerating decomposition temperature (SADT) : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : 10 mm²/s (104 °F / 40 °C)

Explosive properties : No data available

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : The product is chemically stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Strong acids and strong bases

Hazardous decomposition products : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

The most important known symptoms and effects are described in Section 2 and/or Section 4.

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Information on likely routes of exposure

Inhalation
Eye contact
Skin contact

Acute toxicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity
Remarks: Dosage caused no mortality
Test results on an analogous product

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: No information available.
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Dosage caused no mortality
Test results on an analogous product

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Dosage caused no mortality
Test results on an analogous product

Paraffin oils (petroleum), catalytic dewaxed light:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
Remarks: Test results on an analogous product

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: No information available.
Assessment: The substance or mixture has no acute inhalation toxicity

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Remarks: Based on data from similar materials
No deaths at maximum dose.

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: Test results on an analogous product
No mortality observed at this dose.

Skin corrosion/irritation

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes
Remarks : Test results on an analogous product

Paraffin oils (petroleum), catalytic dewaxed light:

Species : Rabbit
Exposure time : 24 h
Result : No skin irritation
GLP : yes
Remarks : Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
GLP : yes
Remarks : Test results on an analogous product

Paraffin oils (petroleum), catalytic dewaxed light:

Species : Rabbit
Result : No eye irritation
Exposure time : 72 h
GLP : yes
Remarks : Based on data from similar materials

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Test Type : Buehler Test
Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Did not cause sensitization on laboratory animals.
GLP : yes

Paraffin oils (petroleum), catalytic dewaxed light:

Test Type : Buehler Test
Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitization.
GLP : yes
Remarks : Test results on an analogous product

Germ cell mutagenicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Genotoxicity in vitro : Test Type: Ames test
Test system: TA98
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: equivocal
GLP: No information available.
Remarks: Information given is based on data obtained from similar substances.

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: no
Remarks: Information given is based on data obtained from similar substances.

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: equivocal
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Application Route: Intraperitoneal
Method: OECD Test Guideline 474
Result: negative
GLP: No information available.
Remarks: Test results on an analogous product

Paraffin oils (petroleum), catalytic dewaxed light:

Genotoxicity in vitro : Test Type: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Test system: Salmonella typhimurium
Metabolic activation: Metabolic activation
Method: OECD Test Guideline 471
Result: positive
GLP: No information available.
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: no
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Cell type: Bone marrow
Application Route: Intraperitoneal
Exposure time: once
Dose: 0 - 1 - 2,5

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Method: OECD Test Guideline 474
Result: negative
GLP: No information available.
Remarks: Information given is based on data obtained from similar substances.

Carcinogenicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Carcinogenicity - Assessment : Classified based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L)

Paraffin oils (petroleum), catalytic dewaxed light:

Species : Mouse
Exposure time : up to 78 weeks
Dose : 0 - 0.2 - 0,25 mL
Frequency of Treatment : once or twice weekly
Method : OECD Test Guideline 451
Result : negative
GLP : No information available.
Remarks : Information taken from reference works and the literature.

Carcinogenicity - Assessment : Classified based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L)

IARC No ingredient 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 on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Rat, male and female
Application Route: Oral
Dose: 1000 milligram per kilogram
General Toxicity Parent: NOAEL: >= 1,000 mg/kg bw/day
Fertility: NOAEL: >= 1,000 mg/kg bw/day

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Early Embryonic Development: NOAEL: \geq 1,000 mg/kg bw/day
Method: OECD Test Guideline 421
Result: No effects on fertility and early embryonic development were detected.
GLP: yes
Remarks: Test results on an analogous product

Paraffin oils (petroleum), catalytic dewaxed light:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Application Route: Oral
Dose: 1000 mg/kg bw/d
General Toxicity Parent: NOAEL: \geq 1,000 mg/kg body weight
Fertility: NOAEL: \geq 1,000 mg/kg body weight
Method: OECD Test Guideline 421
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Effects on fetal development : Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: Dermal
Dose: 0-125-500-2000 milligram per kilogram
General Toxicity Maternal: LOAEL: 125 mg/kg body weight
Teratogenicity: NOAEL F1: \geq 2,000 mg/kg body weight
Remarks: Based on data from similar materials

STOT-single exposure

May cause respiratory irritation.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Assessment : May cause respiratory irritation.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Species : Rat, male
LOAEL : 125 mg/kg
Application Route : Oral
Exposure time : 90 d
Number of exposures : daily

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Dose : 125 - 500 mg/kg bw/d
Method : OECD Test Guideline 408
GLP : No information available.
Remarks : Test results on an analogous product

Paraffin oils (petroleum), catalytic dewaxed light:

Species : Rat, male
LOAEL : 125 mg/kg
Application Route : Oral
Exposure time : 13 weeks
Number of exposures : 5 days/week
Dose : 0 - 125 - 500 mg/kg bw
Control Group : yes
GLP : No information available.
Remarks : Based on data from similar materials

Species : Rat, male and female
NOAEL : 0.98 mg/l
Application Route : Inhalation
Test atmosphere : dust/mist
Exposure time : 35 Days
Number of exposures : 6 hours/day, 5 days/week
Dose : 0 - 0.05 - 0,22
Control Group : yes
GLP : No information available.
Remarks : Based on data from similar materials

Species : Rabbit, male and female
NOAEL : 1,000 mg/kg
Application Route : Dermal
Exposure time : 35 Days
Number of exposures : 6 hours/day, 3 times/week
Dose : 0 - 200 - 1000
Control Group : yes
Method : OECD Test Guideline 410
GLP : yes
Remarks : Based on data from similar materials

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

Distillates (petroleum), hydrotreated light naphthenic:

May be fatal if swallowed and enters airways.

Paraffin oils (petroleum), catalytic dewaxed light:

May be fatal if swallowed and enters airways.

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Analytical monitoring: yes
Method: OECD Test Guideline 203
GLP: yes
Remarks: water extractable fraction

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Analytical monitoring: yes
Method: OECD Test Guideline 202
GLP: yes
Remarks: water extractable fraction

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
End point: Growth rate
Exposure time: 72 h
Analytical monitoring: No information available.
Method: OECD Test Guideline 201
GLP: No information available.
Remarks: water extractable fraction
Test results on an analogous product

NOELR (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
End point: Growth rate
Exposure time: 72 h
Analytical monitoring: No information available.
Method: OECD Test Guideline 201
GLP: No information available.
Remarks: water extractable fraction
Test results on an analogous product

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): 10 mg/l
End point: Reproduction
Exposure time: 21 d
Analytical monitoring: No information available.
Method: OECD Test Guideline 211
GLP: yes
Remarks: water extractable fraction

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Persistence and degradability

Components:

Distillates (petroleum), hydrotreated light naphthenic:

Biodegradability : Result: Not readily biodegradable.

Paraffin oils (petroleum), catalytic dewaxed light:

Biodegradability : Inoculum: activated sludge
Result: Not readily biodegradable.
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Bioaccumulative potential

Components:

Paraffin oils (petroleum), catalytic dewaxed light:

Partition coefficient: n-octanol/water : Pow: 1.99 - 18.02 (68 °F / 20 °C)
pH: 7
Method: calculated
GLP: No information available.

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Waste from residues : The generation of waste should be avoided or minimized wherever possible.
This material and its container must be disposed of in a safe way.
Empty containers retain product residue; observe all precau-

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

tions for product.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Hazard and Handling Notes.

Not dangerous cargo, Keep separated from foodstuffs

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

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

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Aspiration hazard
Specific target organ toxicity (single or repeated exposure)

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

Massachusetts Right To Know

| | | |
|--|------------|---------|
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | 70 - 90 |
|--|------------|---------|

Pennsylvania Right To Know

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



Version 2.0 Revision Date: 02/27/2023 SDS Number: 203000016236 Date of last issue: 09/28/2020
Country / Language: US / EN

Distillates (petroleum), hydrotreated light naphthenic 64742-53-6 70 - 90
Paraffin oils (petroleum), catalytic dewaxed light 64742-71-8 30 - 50

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

TSCA inventory

TSCA : All substances listed as active on the TSCA inventory

TSCA list

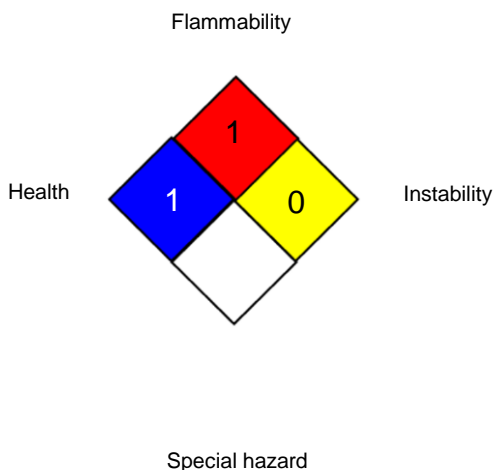
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

| | | |
|-----------------|---|---|
| HEALTH | / | 3 |
| FLAMMABILITY | | 1 |
| PHYSICAL HAZARD | | 0 |

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH / TWA : 8-hour, time-weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List

SAFETY DATA SHEET

ROYCO 481 MIL-PRF-6081



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(Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 02/27/2023

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. 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 to be a guidance for processing and does not contain any 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. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.