

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : ROYCO 808 MIL-PRF-7808

Product code : 000000000062496101

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 : Lubricant

SECTION 2. HAZARDS IDENTIFICATION

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

Skin sensitization : Category 1

Reproductive toxicity : Category 2

GHS label elements

Hazard pictograms :  

Signal Word : Warning

Hazard Statements : May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version 4.1 Revision Date: 02/02/2024 SDS Number: 203000016196 Date of last issue: 04/19/2023
Country / Language: US / EN

Precautionary Statements

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing mist or vapors.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF ON SKIN: Wash with plenty of soap and water.
IF exposed or concerned: Get medical advice/ attention.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.

Storage:

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)
Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane	68130-53-0	≥ 30 - < 50
Tricresyl Phosphate	1330-78-5	≥ 1 - < 5
2,6-di-tert-butyl-alpha-dimethylamino-p-cresol	88-27-7	≥ 0.1 - < 1

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

SECTION 4. FIRST AID MEASURES

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.
Remove contaminated clothing and shoes.

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

Continue to rinse for at least 20 minutes.
Get medical attention if symptoms occur.
Wash contaminated clothing before reuse.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Get medical attention if symptoms appear.

If swallowed : Rinse mouth with water.
Do not induce vomiting unless directed to do by medical personnel.
Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Symptoms : Skin: Causes irritation with symptoms of reddening, itching, and swelling.
Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Adverse symptoms sometimes include the following:
Effects on fertility.

Effects : May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.

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 : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Oxides of phosphorus
Nitrogen oxides (NO_x)

Further information : Promptly isolate the scene by removing all persons from the

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

vicinity of the incident if there is a fire.
No action shall be taken involving any personal risk or without suitable training.

Special protective equipment : Wear self-contained breathing apparatus for firefighting if necessary for fire-fighters

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.
Put on appropriate personal protection equipment.
Do not touch or walk through spilled material.
Evacuate unnecessary personnel.
Keep unnecessary and unprotected personnel from entering.
Forms slippery/greasy layers with water.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Stop leak if safe to do so.
Move containers from spill area.
Wash spillages into an effluent treatment plant or proceed as follows.
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.
Contaminated absorbent material may pose the same hazard as the spilled product.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : 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.
Persons with a history of skin sensitization to this product should not be employed in any process in which this product

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

is used.
Avoid exposure during pregnancy.

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.
Keep container closed when not in 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.

Further information on storage stability : Stable under recommended storage conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

|| Contains no substances with occupational exposure limit values.

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 : Breathing apparatus needed only when aerosol or mist is formed.
In the case of vapor formation use a respirator with an approved filter.

NIOSH approved, air-purifying organic vapor respirator.

Hand protection

Material : Neoprene

Remarks : Impervious gloves
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Request information on glove permeation properties from the glove supplier.

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective clothing.

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

Impervious clothing

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	: liquid
Physical state	: liquid
Color	: colorless
Odor	: mild
Odor Threshold	: No data available
pH	: substance/mixture is non-soluble (in water)
Melting point/range	: Not applicable
Boiling point/boiling range	: No data available
Flash point	: > 410 °F / 210 °C
	Method: open cup
Evaporation rate	: No data available
Flammability (liquids)	: No data available
Self-ignition	: 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
Relative vapor density	: No data available

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

Relative density	:	0.95
Density	:	0.952 g/cm ³ (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
Ignition temperature	:	not determined
Decomposition temperature	:	No data available
Self-Accelerating decomposition temperature (SADT)	:	No data available
Viscosity	:	
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Self-heating substances	:	No data available
Molecular weight	:	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 polymerization does not occur. 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 oxides

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

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

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg
Method: OECD Test Guideline 420
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity
Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: No mortality observed at this dose.

Tricresyl Phosphate:

Acute oral toxicity : LD50 (Rat, male and female): > 20,000 mg/kg
Method: Standard acute method
GLP: no

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Standard acute method
GLP: no
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Dosage caused no mortality

Acute dermal toxicity : LD50 (Rabbit, male and female): 3,700 mg/kg
Method: Standard acute method
GLP: no
Assessment: Not classified due to data which are conclusive although insufficient for classification.

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol:

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

Acute oral toxicity : LD50 (Rat, male): 515 mg/kg
Method: OECD Test Guideline 401
GLP: no

LD50 (Rat, female): 365 mg/kg
Method: OECD Test Guideline 401
GLP: no

Acute dermal toxicity : LD50 (Rabbit): > 4,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Not classified based on available information.

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Species : reconstructed human epidermis (RhE)
Method : OECD Test Guideline 439
Result : No skin irritation
GLP : yes
Remarks : In vitro study

Species : reconstructed human epidermis (RhE)
Method : OECD Test Guideline 431
Result : Not corrosive
GLP : yes
Remarks : In vitro study

Tricresyl Phosphate:

Species : Rabbit
Exposure time : 24 h
Method : Draize Test
GLP : no
Remarks : Mild skin irritation
(not subject to classification)

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol:

Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Species	:	Bovine cornea
Result	:	No eye irritation
Method	:	OECD Test Guideline 437
GLP	:	yes
Remarks	:	In vitro study

Tricresyl Phosphate:

Species	:	Rabbit
Result	:	No eye irritation
Exposure time	:	24 h
GLP	:	no

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol:

Assessment	:	Irritating to eyes.
Method	:	OECD Test Guideline 405

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Test Type	:	Local lymph node assay (LLNA)
Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitization.
GLP	:	yes

Tricresyl Phosphate:

Test Type	:	Local lymph node assay (LLNA)
Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Not a skin sensitizer.
GLP	:	yes
Remarks	:	Not classified due to inconclusive data.

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol:

Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	May cause sensitization by skin contact.
GLP	:	yes

Germ cell mutagenicity

Not classified based on available information.

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Genotoxicity in vitro	:	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes
-----------------------	---	---

	:	Test Type: Ames test Test system: Escherichia coli Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes
--	---	---

	:	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 490 Result: negative GLP: yes
--	---	--

	:	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: yes Remarks: Test results on an analogous product
--	---	---

	:	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: Test results on an analogous product
--	---	---

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

Tricresyl Phosphate:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: no

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Result: negative
GLP: no

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (female)
Cell type: In red blood cells
Application Route: Oral
Result: negative
GLP: no

Test Type: sister chromatid exchange assay
Species: Chinese hamster (male and female)
Cell type: Bone marrow
Application Route: Oral
Result: negative
GLP: yes

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol:

Genotoxicity in vitro : Test system: Mammalian-Animal
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Test system: Bacteria
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

Test system: Mammalian-Animal
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Genotoxicity in vivo : Species: Mammalian-Animal
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

Not classified based on available information.

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

Suspected of damaging fertility or the unborn child.

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Effects on fertility : Test Type: Fertility
Species: Rat, male and female
Application Route: Oral
Dose: 250 - 500 - 1000 milligram per kilogram
General Toxicity Parent: NOAEL: 1,000 mg/kg bw/day
General Toxicity F1: NOAEL: 1,000 mg/kg bw/day
Fertility: NOAEL: 500 mg/kg bw/day
Early Embryonic Development: NOAEL: 1,000 mg/kg bw/day
Method: OECD Test Guideline 443
Result: equivocal
GLP: yes

Effects on fetal development : Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Dose: 100 - 300 - 1000 milligram per kilogram
General Toxicity Maternal: NOAEL: 1,000 mg/kg bw/day
Developmental Toxicity: NOAEL: 1,000 mg/kg bw/day
Method: OECD Test Guideline 414
Result: Did not show teratogenic effects in animal experi-

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

ments.
GLP: yes

Test Type: Pre-natal
Species: Rabbit, female
Application Route: Oral
Dose: 100 - 300 - 1000 milligram per kilogram
General Toxicity Maternal: NOAEL: 1,000 mg/kg bw/day
Developmental Toxicity: NOAEL: 100 mg/kg bw/day
Method: OECD Test Guideline 414
Result: Embryotoxic effects and adverse effects on the off-spring were detected.
GLP: yes

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

Tricresyl Phosphate:

Effects on fertility : Species: Mouse, male and female
Application Route: Oral
Dose: 62,5 - 124 - 250 milligram per kilogram
General Toxicity Parent: LOAEL: 62.5 mg/kg body weight
General Toxicity F1: LOAEL: 62.5 mg/kg body weight
Target Organs: Testes
GLP: no

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat, female
Application Route: Oral
Dose: 20 - 100 - 400 - 750 milligram per kilogram
Duration of Single Treatment: 28 d
General Toxicity Maternal: NOEL: 20 mg/kg body weight
Developmental Toxicity: LOAEL: 20 mg/kg body weight
Method: OPPTS 870.3700
GLP: yes

Reproductive toxicity - Assessment : Suspected of damaging fertility. (Causing atrophy of the testes), Suspected of damaging the unborn child.

Routes of exposure, oral

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol:

Effects on fertility : Species: Rat, male
Application Route: Oral
Dose: 50 milligram per kilogram
Duration of Single Treatment: 48 d
Symptoms: NOEL
Method: OECD Test Guideline 421

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

GLP: yes

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Species	: Rat, male and female
NOAEL	: 1000 mg/kg
Application Route	: Oral
Exposure time	: 13 weeks
Dose	: 100 - 300 - 1000 mg/kg bw/day
Subsequent observation period	: 28 d
Method	: OECD Test Guideline 408
GLP	: yes
Remarks	: Subchronic toxicity

Tricresyl Phosphate:

Species	: Rat, male and female
LOAEL	: 50 mg/kg
Application Route	: Oral
Exposure time	: 91 d
Number of exposures	: 5 days/week
Dose	: 50 - 100 - 200 - 400 - 800 mg/kg bw/day
GLP	: yes
Remarks	: Subchronic toxicity

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol:

Species	: Rat, male and female
Application Route	: Oral
Exposure time	: 28 d
Dose	: 150 mg/kg
Method	: OECD Test Guideline 407
GLP	: yes
Remarks	: Subacute toxicity

Species	: Rat, male
Application Route	: Oral
Exposure time	: 48 d
Dose	: 50 mg/kg
Method	: OECD Test Guideline 421

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

GLP	:	yes
Remarks	:	Subacute toxicity
Species	:	Rat, female
Application Route	:	Oral
Exposure time	:	48 d
Dose	:	150 mg/kg
Method	:	OECD Test Guideline 421
GLP	:	yes
Remarks	:	Subacute toxicity

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks : The product itself has not been tested.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Toxicity to fish : LL50 (Danio rerio (zebra fish)): > 10,000 mg/l
End point: mortality
Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: no
Method: OECD Test Guideline 203
GLP: yes
Remarks: water extractable fraction
Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 100 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 202
GLP: no
Remarks: water extractable fraction
Based on data from similar materials

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 201
GLP: no
Remarks: water extractable fraction
Based on data from similar materials

EL10 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l

End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 201
GLP: no
Remarks: water extractable fraction
Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): 100 mg/l
Exposure time: 21 d
Test Type: Static
Analytical monitoring: yes
Method: OECD Test Guideline 211
GLP: yes
Remarks: water extractable fraction

Toxicity to microorganisms : EC10 (activated sludge): > 1,000 mg/l
End point: Respiration rates.
Exposure time: 3 h
Analytical monitoring: no
Method: OECD Test Guideline 209
GLP: yes
Remarks: nominal concentration
Based on data from similar materials

Tricresyl Phosphate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.6 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: no
GLP: no
Remarks: Fresh water
nominal concentration

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.146 mg/l
Exposure time: 48 h
Test Type: static test

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

		Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes Remarks: Fresh water
Toxicity to algae/aquatic plants	:	EL50 (Pseudokirchneriella subcapitata (green algae)): > 2.5 mg/l End point: Growth rate Exposure time: 72 h Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes Remarks: Fresh water nominal concentration water extractable fraction NOEC (Pseudokirchneriella subcapitata (green algae)): > 2.5 mg/l End point: Growth rate Exposure time: 72 h Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes Remarks: Fresh water nominal concentration water extractable fraction
Toxicity to fish (Chronic toxicity)	:	NOEC (Jordanella floridae (flagfish)): 0.01 mg/l Exposure time: 28 d Analytical monitoring: yes GLP: no Remarks: Fresh water
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.1 mg/l Exposure time: 21 d Analytical monitoring: yes GLP: no Remarks: Fresh water
Toxicity to microorganisms	:	EC50 (activated sludge): > 1,000 mg/l End point: Respiration inhibition Exposure time: 3 h Analytical monitoring: no Method: OECD Test Guideline 209 GLP: yes Remarks: Fresh water nominal concentration

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol:

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

Toxicity to fish : LC50 : 1.346 mg/l
Exposure time: 96 h
Method: QSAR

Toxicity to daphnia and other : LC50: 0.659 mg/l
aquatic invertebrates Exposure time: 48 h
Method: QSAR

Toxicity to microorganisms : EC50 (Bacteria): > 100 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Biodegradability : aerobic
Inoculum: activated sludge, non-adapted
Result: rapidly biodegradable
Biodegradation: > 70 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes
Remarks: Based on data from similar materials

Tricresyl Phosphate:

Biodegradability : aerobic
Inoculum: activated sludge, non-adapted
Concentration: 100 mg/l
Result: Readily biodegradable.
Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301C
GLP: yes

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol:

Biodegradability : Result: Not readily biodegradable.

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

Bioaccumulative potential

Components:

Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane:

Bioaccumulation : Bioconcentration factor (BCF): 34.88

Partition coefficient: n-octanol/water : log Pow: 9.66 (68 °F / 20 °C)
Method: QSAR

log Pow: > 6.5 (68 °F / 20 °C)
Method: OECD Test Guideline 117

Tricresyl Phosphate:

Partition coefficient: n-octanol/water : log Pow: 5.93 (77 °F / 25 °C)
GLP: no

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.
The product itself has not been tested.
Avoid release to the environment.

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 precautions for product.
Avoid dispersal of spilled material and runoff and contact with

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

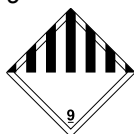
soil, waterways, drains and sewers.
Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (TRICRESYL PHOSPHATES)
Class	:	9
Packing group	:	III
Labels	:	9



Packing instruction (cargo aircraft)	:	964 : 450.00 L
Packing instruction (passenger aircraft)	:	964 : 450.00 L
Environmentally hazardous	:	yes



IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRICRESYL PHOSPHATES)
Class	:	9
Packing group	:	III
Labels	:	9



EmS Code	:	F-A, S-F
Marine pollutant	:	yes

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN



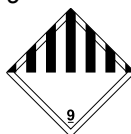
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (TRICRESYL PHOSPHATES)
Class	:	9
Packing group	:	III
Labels	:	9
	:	



ERG Code	:	171
Marine pollutant	:	yes



Hazard and Handling Notes.

Environmentally hazardous substance.
Keep separated from foodstuffs

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

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

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

SARA 311/312 Hazards : Respiratory or skin sensitization
Reproductive toxicity

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

aniline	62-53-3	<= 0.001
1-naphthylamine	134-32-7	<= 0.001

Pennsylvania Right To Know

Decanoic acid, mixed esters with neopentyl glycol and octanoic acid	70693-32-2	> 1
Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane	68130-53-0	30 - 50
Heptanoic acid, ester with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol pentanoate	67762-64-5	> 1

California Prop. 65

WARNING: This product can expose you to chemicals including aniline, 1-naphthylamine, 2-naphthylamine, which is/are known to the State of California to cause cancer, and toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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

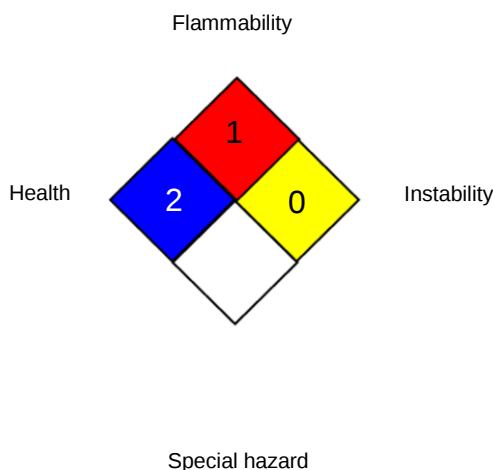
SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

NFPA 704:



HMIS® IV:

HEALTH	*	2
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

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 (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 Organization 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

SAFETY DATA SHEET

ROYCO 808 MIL-PRF-7808



Version	Revision Date:	SDS Number:	Date of last issue: 04/19/2023
4.1	02/02/2024	203000016196	Country / Language: US / EN

and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECL - 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 : 02/02/2024

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.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.