ROYCO 808 MIL-PRF-7808

Version	Revision Date:	SDS Number:	Date of last issue: 02/02/2024
5.0	12/15/2025	203000016196	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : ROYCO 808 MIL-PRF-7808

Product code : 000000000058323500

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)

Hazards for the product as supplied

Reproductive toxicity : Category 2

Other hazards

None known.

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H361 Suspected of damaging fertility or the unborn child.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves, protective clothing, eye protection and face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)
Decanoic acid, mixed esters with heptanoic acid, octanoic acid and trimethylolpropane	68130-53-0*	>= 15 - <= 40
Tricresyl Phosphate	1330-78-5*	>= 1 - <= 5

* Indicates that the identifier is a CAS No.
Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
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 : In case of skin contact
Wash off with plenty of water.
If symptoms persist, call a physician.

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 per-

sonnel.
Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Symptoms	:	Adverse symptoms sometimes include the following: Effects on fertility.
Effects	:	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 (NOx)
Further information	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

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	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
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. 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 contamina-

tion.
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
- Wearing time : < 60 min

- Material : Natural Rubber
- Wearing time : < 60 min

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective clothing.
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
Relative density	:	0.95
Density	:	0.952 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
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
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
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

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Skin contact

Acute toxicity

Not classified due to lack of data.

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: OECD Test Guideline 403
GLP: Yes
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

Skin corrosion/irritation

Not classified due to lack of data.

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
Method	:	Draize Test
GLP	:	No
Remarks	:	Mild skin irritation (not subject to classification)

Serious eye damage/eye irritation

Not classified due to lack of data.

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
GLP	:	No

Respiratory or skin sensitization

Skin sensitization

Not classified due to lack of data.

Respiratory sensitization

Not classified due to lack of data.

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	:	equivocal
GLP	:	Yes
Assessment	:	Does not cause skin sensitization.
Method	:	Expert judgment

Germ cell mutagenicity

Not classified due to lack of data.

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 substance/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 substance/product.

Tricresyl Phosphate:

Genotoxicity in vitro : Test Type: Ames test
Test system: Escherichia coli

Metabolic activation: with and without metabolic activation
Result: negative
GLP: Yes
Remarks: Test results on an analogous substance/product.

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: In vitro mammalian cell gene mutation test
Test system: Chinese hamster cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: Yes
Remarks: Test results on an analogous substance/product.

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (female)
Cell type: In red blood cells
Application Route: Oral
Result: negative
GLP: No
Remarks: Test results on an analogous substance/product.

Test Type: sister chromatid exchange assay
Species: Chinese hamster (male and female)
Cell type: Bone marrow
Application Route: Oral
Result: negative
GLP: Yes
Remarks: Test results on an analogous substance/product.

Test Type: Chromosomal aberration assay
Species: Chinese hamster (male and female)
Cell type: Bone marrow
Application Route: Oral
Method: OECD Test Guideline 475
Result: negative
GLP: Yes
Remarks: Test results on an analogous substance/product.

Carcinogenicity

Not classified due to lack of data.

Components:

Tricresyl Phosphate:

Species	:	Rat, male and female
Application Route	:	Oral
Exposure time	:	104 weeks
Method	:	NTP-internal standards
Result	:	negative
GLP	:	Yes

Species	:	Mouse, male and female
Application Route	:	Oral
Exposure time	:	105 weeks
Method	:	NTP-internal standards
Result	:	negative
GLP	:	Yes

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: Embryotoxic effects and adverse effects on the off-spring were detected. 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 experiments.
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 offspring were detected.
GLP: Yes

Reproductive toxicity - Assessment : Some evidence of adverse effects on development, based on animal experiments.

Tricresyl Phosphate:

Effects on fertility : Species: Mouse, male and female
Application Route: Oral
Dose: 62,5 - 124 - 250 mg/kg bw/day
General Toxicity Parent: LOAEL: 62.5 mg/kg bw/day
Fertility: LOAEL: 62.5 mg/kg bw/day
Result: positive
GLP: No

Effects on fetal development : Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Dose: 20 - 100 - 400 - 750 mg/kg bw/day
General Toxicity Maternal: NOEL: 20 mg/kg bw/day
Developmental Toxicity: LOAEL: 20 mg/kg body weight
Method: OPPTS 870.3700
Result: positive
GLP: Yes

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

STOT-single exposure

Not classified due to lack of data.

STOT-repeated exposure

Not classified due to lack of data.

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	:	13 Weeks
Number of exposures	:	5 days/week
Dose	:	0 - 50 - 100 - 200 - 400 - 800 mg/kg bw/day
GLP	:	Yes
Remarks	:	Subchronic toxicity

Aspiration toxicity

Not classified due to lack of data.

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
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 : EC50 (Daphnia magna (Water flea)): 0.146 mg/l

aquatic invertebrates		End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: Yes Method: OECD Test Guideline 202 GLP: Yes Remarks: Fresh water
Toxicity to algae/aquatic plants	:	EL50 (Raphidocelis subcapitata (freshwater green alga)): > 2.5 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: Yes Method: OECD Test Guideline 201 GLP: Yes Remarks: Fresh water nominal concentration water extractable fraction NOEC (Raphidocelis subcapitata (freshwater green alga)): > 2.5 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test 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 Test Type: semi-static test 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 End point: reproduction rate Exposure time: 21 d Test Type: semi-static test 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 Test Type: static test Analytical monitoring: No Method: OECD Test Guideline 209 GLP: Yes

Remarks: Fresh water
nominal concentration

EC50 (Soil organisms): > 1,010 mg/l
Exposure time: 28 d
Analytical monitoring: No
Method: OECD Test Guideline 216
GLP: Yes
Remarks: Test results on an analogous substance/product.
nominal concentration

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg
Exposure time: 14 d
Method: OECD Test Guideline 207
GLP: Yes
Remarks: Test results on an analogous substance/product.

Plant toxicity : EC50: > 100 mg/kg
End point: Seeding emergence and survival
Test period: 18 d
Species: Raphanus sativus
Method: OECD Test Guideline 208
GLP: Yes
Remarks: Test results on an analogous substance/product.

EC50: > 100 mg/kg
End point: Seeding emergence and survival
Test period: 19 d
Species: Phaseolus aureus
Method: OECD Test Guideline 208
GLP: Yes
Remarks: Test results on an analogous substance/product.

Sediment toxicity : EC50 (Chironomus riparius): 87 mg/kg dry weight (d.w.)
Analytical monitoring: Yes
Duration: 28 d
Test Type: static test
Sediment: Artificial sediment
Nominal / Measured: nominal
Basis for effect: Number of adults emerged
Method: OECD Test Guideline 218
GLP: Yes
Remarks: Test results on an analogous substance/product.

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

Stability in water : Degradation half life (DT50): 61.6 d (25 °C) pH: 4
Method: OECD Test Guideline 111
GLP: Yes

Degradation half life (DT50): 44.4 d (25 °C) pH: 7
Method: OECD Test Guideline 111
GLP: Yes

Degradation half life (DT50): 6.56 d (25 °C) pH: 9
Method: OECD Test Guideline 111
GLP: Yes

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

Tricresyl Phosphate:

Bioaccumulation : Species: Alburnus alburnus (Bleak)
Bioconcentration factor (BCF): 400 - 800
Exposure time: 14 d
Temperature: 50 °F / 10 °C

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

Mobility in soil

Components:

Tricresyl Phosphate:

Distribution among environmental compartments	:	log Koc: 4.31 Method: OECD Test Guideline 121

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 with long lasting effects.

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 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 (passen-	:	964: 450.00 L

ger aircraft)
Environmentally hazardous : yes

IMDG-Code

UN number	:	UN 3082
UN 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

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.

SARA 311/312 Hazards : 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
1-naphthylamine	134-32-7

Pennsylvania Right To Know

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

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

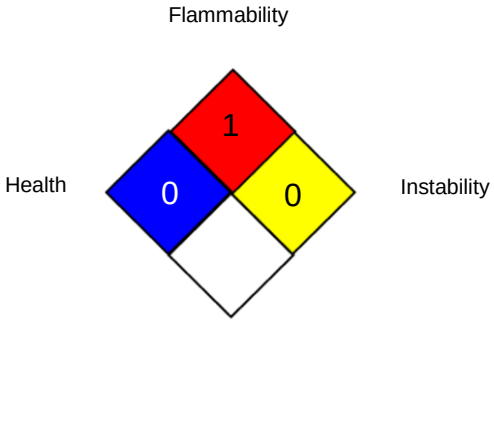
No substances are subject to a Significant New Use Rule.

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

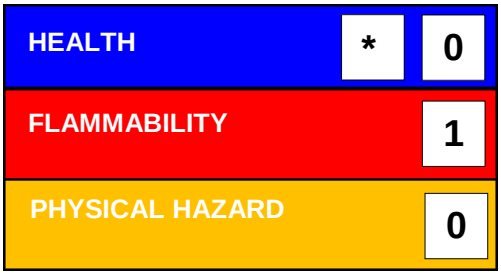
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



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 Standardization; 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, Authorization 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 : 12/15/2025

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.

US / EN