

SAFETY DATA SHEET

ROYCO 899 MIL-PRF-23699 (C/I)



Version Revision Date: SDS Number: Date of last issue: 08/16/2022
6.0 08/16/2022 203000003097 Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : ROYCO 899 MIL-PRF-23699 (C/I)

Product code : 000000000062496108

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

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

Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

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

|| Reproductive toxicity : Category 2

Reproductive toxicity : Category 2

GHS label elements

Hazard pictograms : The GHS hazard pictogram for Health Hazard (H373). It consists of a red diamond-shaped border with a white background. Inside the diamond is a black silhouette of a human figure with a white starburst on the chest, indicating a health hazard.

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Signal Word

: Warning
Warning

Hazard Statements

: Suspected of damaging fertility or the unborn child.
Suspected of damaging fertility or the unborn child.

Precautionary Statements

: **Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
IF exposed or concerned: Get medical advice/ attention.
IF exposed or concerned: Get medical advice/ attention.
Storage:
Store locked up.
Store locked up.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

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Components

Chemical name	CAS-No.	Concentration (% w/w)
tris(methylphenyl) phosphate	1330-78-5	>= 1 - < 5
tris(methylphenyl) phosphate	1330-78-5	>= 1 - < 5
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	>= 0.1 - < 1

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

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.
Get medical attention if symptoms occur.
- 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 : Adverse symptoms sometimes include the following:
Effects on fertility.
Effects on fetal development.
- Effects : Suspected of damaging fertility or the unborn child.
- Protection of first-aiders : 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

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- Specific hazards during fire fighting : Burning produces obnoxious and toxic fumes. Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon monoxide
Carbon dioxide (CO₂)
Oxides of phosphorus
- 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.
- 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 personnel to safe areas.
Keep unnecessary and unprotected personnel from entering.
Provide adequate ventilation.
Do not breathe vapors, aerosols.
Forms slippery/greasy layers with water.
- Environmental precautions : 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.
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SECTION 7. HANDLING AND STORAGE

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- 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 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** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

Hand protection

- Material : Polyvinyl chloride - PVC

- Material : Neoprene

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

- Eye protection : Safety glasses with side-shields
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- Skin and body protection : Wear suitable protective clothing.
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- 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 : clear
- Odor : slight
- Odor Threshold : No data available
- pH : Not applicable
- Pour point : -65 °F / -54 °C
- Boiling point/boiling range : 750 °F / 399 °C
(39.8 hPa)
- Flash point : ≥ 475 °F / 246 °C
Method: No information available.
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Self-ignition : No data available
- Burning number : No data available
- Upper explosion limit / Upper : No data available

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flammability limit

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : 0.99 - 1.1 (60.1 °F / 15.6 °C)

Density : No data available

Solubility(ies)

Water solubility : slightly soluble
< 1 g/l

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
No data available

Viscosity

Viscosity, dynamic : 4.90 - 23.0 mPa.s (104 - 212 °F / 40 - 100 °C)
Method: ASTM D 445

Viscosity, kinematic : 4.7 mm²/s (212 °F / 100 °C)
25.5 mm²/s (104 °F / 40 °C)
12000 mm²/s (-40 °F / -40 °C)

Explosive properties : No data available

Oxidizing properties : No data available

Molecular weight : No data available

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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 : Hazardous polymerization does not occur. Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Heat.

Incompatible materials : Strong acids and strong bases

Hazardous decomposition products : Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

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

Information on likely routes of exposure

Inhalation
Eye contact
Skin contact
Skin Absorption

Acute toxicity

Not classified based on available information.

Product:

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

Components:

tris(methylphenyl) 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): > 11.1 mg/l
Exposure time: 1 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

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tris(methylphenyl) phosphate:

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

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Rabbit
Exposure time : 4 h
Method : OECD Test Guideline 404
Result : Mild skin irritation
GLP : no

Serious eye damage/eye irritation

Not classified based on available information.

Components:

tris(methylphenyl) phosphate:

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

tris(methylphenyl) phosphate:

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

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
GLP : no

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

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Components:

tris(methylphenyl) 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.

tris(methylphenyl) 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.

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Test Type : Maximization Test
Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Not a skin sensitizer.
GLP : yes

Germ cell mutagenicity

Not classified based on available information.

Components:

tris(methylphenyl) 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

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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

tris(methylphenyl) 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

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Application Route: Oral
Result: negative
GLP: yes

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Genotoxicity in vitro : Test Type: Micronucleus test
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 487
Result: negative
GLP: yes
Remarks: Test results on an analogous product

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

Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: Test results on an analogous product

Test Type: Ames test
Test system: Escherichia coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: Test results on an analogous product

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
Remarks: Test results on an analogous product

Genotoxicity in vivo : Test Type: dominant lethal test
Species: Mouse (male)
Application Route: Oral
Method: OECD Test Guideline 478
Result: negative

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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

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Rat, male and female
Application Route: Oral
Dose: 25-75-225 milligram per kilogram
General Toxicity Parent: NOAEL: 25 mg/kg bw/day
Fertility: NOEL: 225 mg/kg bw/day
Method: OECD Test Guideline 422
Result: Animal testing did not show any effects on fertility.
GLP: yes

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rabbit, female
Application Route: Oral
Dose: 10-30-100 milligram per kilogram
General Toxicity Maternal: NOAEL: 30 mg/kg bw/day
Teratogenicity: NOAEL: 100 mg/kg bw/day
Developmental Toxicity: NOEL: 30 mg/kg bw/day
Method: OECD Test Guideline 414
Result: Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses
GLP: yes

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

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

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Repeated dose toxicity

Components:

tris(methylphenyl) 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

tris(methylphenyl) 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

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Rat, male and female
NOAEL : 25 mg/kg
Application Route : Oral
Exposure time : 28 d
Number of exposures : daily
Dose : 25-75-225 mg/kg bw/d
Method : OECD Test Guideline 422
GLP : yes
Remarks : Subacute toxicity

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

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Components:

tris(methylphenyl) 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
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

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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

tris(methylphenyl) 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
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

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Toxicity to fish (Chronic toxicity) : NOEC (Jordanelia 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

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l
End point: mortality
Exposure time: 96 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 203
GLP: no
Remarks: Fresh water
nominal concentration

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 51 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 202
GLP: yes
Remarks: Fresh water
nominal concentration

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 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: Fresh water

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nominal concentration

NOEC (Desmodesmus subspicatus (green algae)): > 10 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: Fresh water

nominal concentration

Toxicity to daphnia and other : EL10 (Daphnia magna (Water flea)): 1.69 mg/l

aquatic invertebrates (Chronic toxicity)

End point: Reproduction

Exposure time: 21 Days

Analytical monitoring: no

Method: OECD Test Guideline 211

GLP: yes

Remarks: Fresh water

nominal concentration

water extractable fraction

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l

End point: Respiration inhibition

Exposure time: 3 h

Test Type: static test

Analytical monitoring: no

Method: OECD Test Guideline 209

GLP: no

Remarks: Fresh water

nominal concentration

Persistence and degradability

Product:

Biodegradability : Result: No data available

Components:

tris(methylphenyl) phosphate:

Biodegradability : aerobic
Inoculum: activated sludge, adapted
Concentration: 30 mg/l
Result: Inherently biodegradable.
Biodegradation: 100 %
Exposure time: 28 d
Method: OECD Test Guideline 302C
GLP: No information available.

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tris(methylphenyl) phosphate:

Biodegradability : aerobic
Inoculum: activated sludge, adapted
Concentration: 30 mg/l
Result: Inherently biodegradable.
Biodegradation: 100 %
Exposure time: 28 d
Method: OECD Test Guideline 302C
GLP: No information available.

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Biodegradability : aerobic
Inoculum: activated sludge, non-adapted
Concentration: 20.1 mg/l
Result: Not readily biodegradable.
Biodegradation: 1 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

tris(methylphenyl) phosphate:

Partition coefficient: n-octanol/water : log Pow: 5.93 (77 °F / 25 °C)
Method: measured

tris(methylphenyl) phosphate:

Partition coefficient: n-octanol/water : log Pow: 5.93 (77 °F / 25 °C)
Method: measured

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

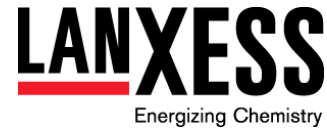
Partition coefficient: n-octanol/water : log Pow: 6.66 (73 °F / 23 °C)
pH: 6.67
Method: OECD Test Guideline 123
GLP: yes
Remarks: Based on data from similar materials

Mobility in soil

No data available

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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 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 (passenger aircraft) : 964 : 450.00 L
Environmentally hazardous : yes

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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



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



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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	< 0.01
1-naphthylamine	134-32-7	< 0.001

Pennsylvania Right To Know

Decanoic acid, mixed tetraesters with 2-ethylhexanoic acid, octanoic acid, pentaerythritol and valeric acid	2416223-28-2	> 1
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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. 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.

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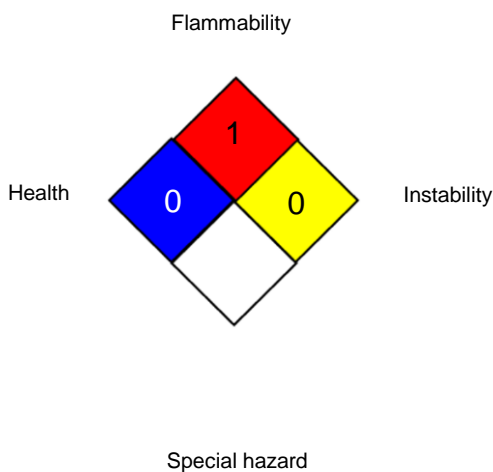
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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	*	0
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 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;

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(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

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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.