SAFETY DATA SHEET

ROYCO 602 (22-015) MIL-PRF-87252

Version	Revision Date:	SDS Number:	Date of last issue: 10/19/2022
1.1	04/12/2024	203000021225	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : ROYCO 602 (22-015) MIL-PRF-87252

Product code : 000000000062629873

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)

Acute toxicity (Inhalation) : Category 4

Aspiration hazard : Category 1

GHS label elements

Hazard pictograms :

Signal Word : Danger

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

Precautionary Statements :

Prevention:

Avoid breathing mist or vapors.
Use only outdoors or in a well-ventilated area.

Response:

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

Storage:

Store 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)
Dec-1-ene, dimers, hydrogenated	68649-11-6	>= 90 - <= 100
2,6-di-tert-butyl-p-cresol	128-37-0	>= 1 - < 5

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

SECTION 4. FIRST AID MEASURES

If inhaled : Get medical attention immediately.
Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If unconscious, place in recovery position and get medical attention immediately.
Maintain open airway.
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

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

Most important symptoms and effects, both acute and delayed

Symptoms : Acute overexposure to this product may cause dizziness, headache, drowsiness, malaise, abdominal pain.
Ingestion and/or vomiting may cause aspiration into the lungs resulting in chemical pneumonitis (inflammation of the lungs).

Effects : May be fatal if swallowed and enters airways.
Harmful if inhaled.

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 extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Alcohol-resistant foam
Carbon dioxide (CO2)
Dry powder
Sand
Water mist

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 (CO_2) Carbon monoxide
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 unnecessary personnel. Keep unnecessary and unprotected personnel from entering.
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.

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 inhalation, ingestion and contact with skin and eyes.
Use only with adequate ventilation.

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

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2,6-di-tert-butyl-p-cresol	128-37-0	TWA (Inhalable fraction and vapor)	2 mg/m3	ACGIH

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

Personal protective equipment

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

NIOSH approved, air-purifying organic vapor respirator.

Hand protection

Material : Nitrile rubber

Material : Polyvinyl alcohol

Remarks : Gloves should be discarded and replaced if there is any indi-

		cation of degradation or chemical breakthrough. Before removing gloves clean them with soap and water. Impervious gloves
Eye protection	:	Safety glasses with side-shields
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.
Protective measures	:	Please follow all applicable local/national requirements when selecting protective measures for a specific workplace. These recommendations apply to the product as supplied.
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, white
Odor	:	characteristic
Odor Threshold	:	No data available
pH	:	No data available
Melting point/range	:	Not applicable
Boiling point/boiling range	:	Not applicable
Flash point	:	> 302 °F / > 150 °C Method: Cleveland open cup
Evaporation rate	:	Not applicable
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	:	0.8 (60.1 °F / 15.6 °C)
Density	:	No data available
Solubility(ies)		
Water solubility	:	immiscible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
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
Surface tension	:	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	:	The product is chemically stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	No decomposition if stored normally.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if inhaled.

Product:

Acute inhalation toxicity	:	Acute toxicity estimate: 1.18 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method

Components:

Dec-1-ene, dimers, hydrogenated:

Acute oral toxicity	:	LD50 (Rat, male and female): > 5,000 mg/kg Assessment: The substance or mixture has no acute oral toxicity Remarks: Dosage caused no mortality
Acute inhalation toxicity	:	LC50 (Rat, male and female): 1.17 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 GLP: Yes

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

Acute oral toxicity	:	LD50 (Rat, male and female): > 2,930 mg/kg Method: OECD Test Guideline 401 GLP: Yes Assessment: The substance or mixture has no acute oral tox-

icity
Remarks: Dosage caused no mortality

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: Dosage caused no mortality

Skin corrosion/irritation

Not classified based on available information.

Components:

Dec-1-ene, dimers, hydrogenated:

Species	:	Rabbit
Exposure time	:	4 h
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
GLP	:	Yes
Remarks	:	Based on data from similar materials

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

Species	:	Rabbit
Method	:	Draize Test
Result	:	No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Dec-1-ene, dimers, hydrogenated:

Species	:	Rabbit
Result	:	No eye irritation
GLP	:	Yes

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

Species	:	Rabbit
Result	:	No eye irritation
Method	:	Draize Test

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Components:

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

Test Type	:	Patch Test
Routes of exposure	:	Skin contact
Species	:	Human
Result	:	Does not cause skin sensitization.

Test Type	:	No data available
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	No information available.
Result	:	Did not cause sensitization on laboratory animals.
GLP	:	No

Germ cell mutagenicity

Not classified based on available information.

Components:

Dec-1-ene, dimers, hydrogenated:

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 Remarks: Based on data from similar materials
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse (male and female) Cell type: Bone marrow Application Route: Intraperitoneal Dose: 1250-2500-5000 mg/kg Method: OECD Test Guideline 474 GLP: Yes Remarks: Based on data from similar materials

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

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 information available.

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: No information available.
Result: negative
GLP: No information available.

Test Type: HPRT test
Test system: rat hepatocytes
Metabolic activation: with metabolic activation
Method: No information available.
Result: negative
GLP: No information available.

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Cell type: Bone marrow
Application Route: Intraperitoneal injection
Method: No information available.
Result: negative
GLP: No information available.

Test Type: Cytogenetic assay
Species: Rat (male)
Cell type: Bone marrow
Application Route: Oral
Method: No information available.
Result: negative
GLP: No information available.

Carcinogenicity

Not classified based on available information.

Components:

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

Species	:	Rat, male and female
Application Route	:	Oral
Exposure time	:	22 month(s)
Dose	:	0 - 25 - 100 - 250/500 mg/kg body weight
NOAEL	:	25 mg/kg bw/day
Method	:	No information available.
Result	:	equivocal
GLP	:	Yes
Carcinogenicity - Assessment	:	Carcinogenicity classification not possible from current data.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

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

Reproductive toxicity

Not classified based on available information.

Components:

Dec-1-ene, dimers, hydrogenated:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Dose: 50-250-1000 milligram per kilogram
Duration of Single Treatment: 20 Weeks
General Toxicity Parent: NOAEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 415
GLP: Yes
Remarks: Based on data from similar materials

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

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Dose: 0 - 25 - 100 - 250/500
Fertility: NOAEL: 500 mg/kg body weight
Result: Animal testing did not show any effects on fertility.
GLP: Yes

Effects on fetal development : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Dose: 0 - 25 - 100 - 250/500 milligram per kilogram
General Toxicity Maternal: NOAEL: 100 mg/kg body weight
Developmental Toxicity: NOAEL: 100 mg/kg body weight
Method: No information available.
Result: Embryotoxic effects and adverse effects on the off-spring were detected only at high maternally toxic doses
GLP: Yes

Test Type: Pre-natal
Species: Mouse, female
Application Route: Oral
Dose: 70 - 240 - 800 milligram per kilogram
General Toxicity Maternal: NOAEL: 240 mg/kg body weight

Developmental Toxicity: NOAEL: 800 mg/kg body weight
Method: No information available.
Result: Did not show teratogenic effects in animal experiments.
GLP: No information available.

STOT-single exposure

Not classified based on available information.

Components:

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

Assessment	:	May cause respiratory irritation.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Dec-1-ene, dimers, hydrogenated:

Species	:	Rat, male and female
NOAEL	:	1,000 mg/kg
Application Route	:	Oral
Exposure time	:	28 Days
Number of exposures	:	daily
Dose	:	0-1000
Method	:	OECD Test Guideline 407
GLP	:	Yes
Remarks	:	Based on data from similar materials

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

Species	:	Rat, male and female
NOAEL	:	25 mg/kg
LOAEL	:	100 mg/kg
Application Route	:	Oral
Exposure time	:	22 Months
Number of exposures	:	daily
Dose	:	0 - 25 - 100 - 250/500 mg/kg bw/day
Method	:	No information available.
GLP	:	Yes
Symptoms	:	alteration in liver enzymes
Remarks	:	Chronic toxicity
Species	:	Pig, male and female
	:	1500 ppm
Application Route	:	Oral

Exposure time	:	42 Days
Number of exposures	:	daily
Dose	:	0 - 150 - 1000 - 1500 parts per million
Method	:	No information available.
GLP	:	Yes
Remarks	:	Subacute toxicity

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

Dec-1-ene, dimers, hydrogenated:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks	:	The product itself has not been tested.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Dec-1-ene, dimers, hydrogenated:

Toxicity to fish	:	LL50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l End point: mortality Exposure time: 96 h Analytical monitoring: Yes Method: OECD Test Guideline 203 GLP: Yes
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): > 1,000 mg/l End point: Immobilization Exposure time: 48 h Analytical monitoring: Yes Method: OECD Test Guideline 202 GLP: Yes
Toxicity to algae/aquatic plants	:	EL50 (Scenedesmus capricornutum (fresh water algae)): > 1,000 mg/l End point: Growth rate Exposure time: 72 h Analytical monitoring: Yes Method: OECD Test Guideline 201

GLP: Yes

NOELR (Scenedesmus capricornutum (fresh water algae)): > 1,000 mg/l
End point: Growth rate
Exposure time: 72 h
Analytical monitoring: Yes
Method: OECD Test Guideline 201
GLP: Yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): 125 mg/l
End point: mortality
Exposure time: 21 d
Analytical monitoring: No
Method: OECD Test Guideline 211
GLP: Yes

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

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 0.57 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: Regulation (EC) No. 440/2008, Annex, C.1
GLP: Yes
Remarks: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.48 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

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 0.4 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: Yes
Method: Regulation (EC) No. 440/2008, Annex, C.3
GLP: Yes
Remarks: Fresh water

EC10 (Desmodesmus subspicatus (green algae)): 0.4 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: Yes
Method: Regulation (EC) No. 440/2008, Annex, C.3

		GLP: Yes Remarks: Fresh water
Toxicity to fish (Chronic toxicity)	:	NOEC (Oryzias latipes (Orange-red killifish)): 0.053 mg/l Exposure time: 42 d Test Type: flow-through test Analytical monitoring: Yes Method: OECD Test Guideline 210 GLP: Yes Remarks: Fresh water
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.023 mg/l End point: Reproduction Exposure time: 21 d Test Type: semi-static test Analytical monitoring: Yes Method: OECD Test Guideline 202 GLP: Yes Remarks: Fresh water
Toxicity to microorganisms	:	EC50 (activated sludge): > 10,000 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
Toxicity to soil dwelling organisms	:	Test Type: Reproduction Test NOEC (Eisenia fetida (earthworms)): 25 mg/kg Exposure time: 28 d End point: Reproduction Method: OECD Test Guideline 222 GLP: Yes
Plant toxicity	:	NOEC: 4.74 mg/kg Exposure time: 17 d End point: Growth inhibition Species: Allium cepa Method: OECD Test Guideline 208 GLP: Yes EC50: 20.9 mg/kg Exposure time: 17 d End point: Growth inhibition Species: Allium cepa Method: OECD Test Guideline 208 GLP: Yes

Persistence and degradability

Components:

Dec-1-ene, dimers, hydrogenated:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 15 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
GLP: Yes

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

Biodegradability : aerobic
Inoculum: activated sludge
Result: Not readily biodegradable.
Biodegradation: 4.5 %
Exposure time: 28 d
Method: OECD Test Guideline 301C
GLP: No information available.

Stability in water : Degradation half life (DT50): 4 - 8 d
Hydrolysis: at 20 °C

Photodegradation : Sensitizer: OH
Degradation (indirect photolysis):
Degradation half life: 21.054 h

Bioaccumulative potential

Components:

Dec-1-ene, dimers, hydrogenated:

Partition coefficient: n-octanol/water : log Pow: > 6.5 (68 °F / 20 °C)
pH: 7
Method: OECD Test Guideline 117
GLP: Yes

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

Bioaccumulation : Bioconcentration factor (BCF): > 2,000

Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 781
Exposure time: 56 d
Temperature: 77 °F / 25 °C
Concentration: 0.05 mg/l
Method: OECD Test Guideline 305

GLP: No information available.

Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 839
Exposure time: 56 d
Temperature: 77 °F / 25 °C
Concentration: 0.005 mg/l
Method: OECD Test Guideline 305
GLP: No information available.

Partition coefficient: n-octanol/water : log Pow: 5.1
Method: measured

Mobility in soil

Components:

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

Mobility : Medium: Soil
Content: 82.9 %
Method: Calculation, Mackay Level III Fugacity Model

Medium: Water
Content: 8.53 %
Method: Calculation, Mackay Level III Fugacity Model

Medium: Sediment
Content: 7.23 %
Method: Calculation, Mackay Level III Fugacity Model

Medium: Air
Content: 1.33 %
Method: Calculation, Mackay Level III Fugacity Model

Distribution among environmental compartments : log Koc: 4.17
Method: estimated

Stability in soil : Test Type: aerobic degradation
Soil temperature: 54 °F / 12 °C
Radio label: Yes
pH: 5.7
Cation exchange capacity: 16 m_/kg
Biomass: 214 mg/kg
Method: OECD Test Guideline 307
GLP: Yes

Test Type: aerobic degradation
Soil temperature: 54 °F / 12 °C
Radio label: Yes

pH: 6.6
Cation exchange capacity: 47 m_/kg
Biomass: 265.7 mg/kg
Method: OECD Test Guideline 307
GLP: Yes

Test Type: aerobic degradation
Soil temperature: 54 °F / 12 °C
Radio label: Yes
pH: 7.4
Cation exchange capacity: 265 m_/kg
Biomass: 531.8 mg/kg
Method: OECD Test Guideline 307
GLP: Yes

Test Type: aerobic degradation
Soil temperature: 54 °F / 12 °C
Radio label: Yes
pH: 7.2
Cation exchange capacity: 257 m_/kg
Biomass: 938.7 mg/kg
Method: OECD Test Guideline 307
GLP: Yes

Other adverse effects

Product:

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

Components:

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

Results of PBT and vPvB assessment : Substance is not persistent, bioaccumulative, and toxic (PBT).
Substance is not very persistent and very bioaccumulative (vPvB).

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.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
Not regulated as a dangerous good

Hazard and Handling Notes.
Not dangerous cargo
Keep separated from foodstuffs

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity
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 : Acute toxicity (any route of exposure)
Aspiration hazard

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

2,6-di-tert-butyl-p-cresol	128-37-0	>= 1 - < 5

Pennsylvania Right To Know

Dec-1-ene, dimers, hydrogenated	68649-11-6	>= 90 - <= 100
2,6-di-tert-butyl-p-cresol	128-37-0	>= 1 - < 5

California Prop. 65

WARNING: This product can expose you to chemicals including methanol, 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

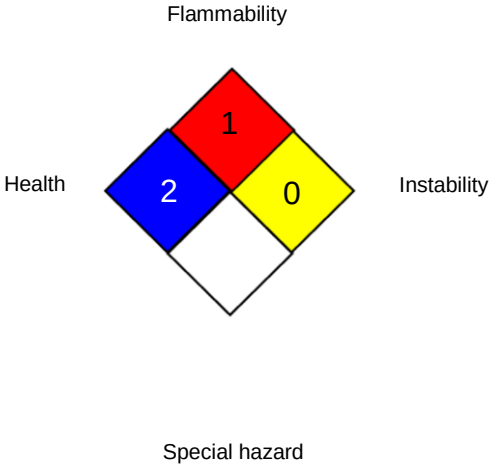
No substances are subject to a Significant New Use Rule.

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

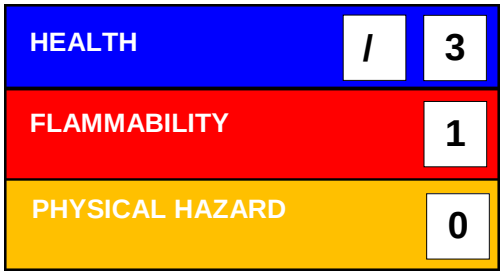
SECTION 16. OTHER INFORMATION

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

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

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council

concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 04/12/2024

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.