

TRIGONOX 21S

Version 3.10 Revision Date: 2023.03.22 CL / EN Date of last issue: 2022.11.04
Date of first issue: 2015.05.08

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE COMPANY OR UNDERTAKING

Product identifier : TRIGONOX 21S

:

Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Polymerization initiator

Details of the supplier of the safety data sheet

Company name of supplier : Nouryon Functional Chemicals B.V.
Haaksbergweg 88
NL 1101 BZ Amsterdam
Netherlands

Supplier's address : Haaksbergweg 88
Amsterdam 1101 BZ

Supplier's telephone number : +31889840367

Emergency telephone number : 24 hours:+31 57 06 79211, US-CHEMTREC:1-800-424-9300,
CA-CANUTEC:1-613-996-6666, JP: +81 (836) 74 8810, CN: 化
学事故应急咨询电话 : +86 532 8388 9090-:
Nouryon Emergency Response Centre: +31 570 679211

SECTION 2. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

Organic peroxides : Type C

Skin sensitisation : Category 1

Reproductive toxicity : Category 1B

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 2

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Hazard pictograms



Signal word

: Danger

Hazard statements

: H242 Heating may cause a fire.
H317 May cause an allergic skin reaction.
H360F May damage fertility.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234 Keep only in original packaging.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P261 Avoid breathing mist or vapours.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
P391 Collect spillage.

Storage:

P403 Store in a well-ventilated place.
P405 Store locked up.
P410 Protect from sunlight.

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P411 Store at temperatures not exceeding 20°C/ 68°F.
 P420 Store separately.

Disposal:

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

Other hazards

None known.

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Substance / Mixture : Substance
 Substance name : tert-Butyl peroxy-2-ethylhexanoate
 CAS-No. : 3006-82-4

Components

Systematic chemical name	CAS-No.	Classification	Concentration or range (% w/w)
tert-Butyl peroxy-2-ethylhexanoate	3006-82-4	Org. Perox. C; H242 Skin Sens. 1; H317 Repr. 1B; H360F Aquatic Acute 1; H400 Aquatic Chronic 2; H411	> 97 -<= 100
tert-Butyl peroxy-2-ethylhexanoate	3006-82-4	Org. Perox. C; H242 Skin Sens. 1; H317 Repr. 1B; H360F Aquatic Acute 1; H400 Aquatic Chronic 2; H411	> 97 -<= 100

For explanation of abbreviations see section 16.

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.

Inhalation : If breathed in, move person into fresh air.
 Consult a physician after significant exposure.

Skin contact : Take off contaminated clothing and shoes immediately.

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- Rinse immediately with plenty of water.
If skin irritation persists, call a physician.
- Eye contact : Rinse with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- Ingestion : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : sensitising effects
May cause an allergic skin reaction.
May damage fertility.
- 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
- Hazardous combustion products : Fire will produce smoke containing hazardous combustion products (see section 10).
- Related specific hazards : CAUTION: reignition may occur.
Supports combustion.
Do not use a solid water stream as it may scatter and spread fire.
Water spray may be ineffective unless used by experienced firefighters.
Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous decomposition products formed under fire conditions.
- Specific extinguishing methods : Use water spray to cool unopened containers.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must

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be disposed of in accordance with local regulations.

Recomendations for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Wear respiratory protection.
Ensure adequate ventilation.
Remove all sources of ignition.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Evacuate personnel to safe areas.
Only qualified personnel equipped with suitable protective equipment may intervene.
Prevent unauthorised persons entering the zone.

Environmental precautions : Prevent product from entering drains.
Discharge into the environment must be avoided.

Methods and material for containment and cleaning up : Soak up with inert absorbent material and dispose of as hazardous waste.
Use only inert inorganic material such as vermiculite or perlite as absorbent.
Keep mixture of absorbent material and spilled product wetted with water.
Confinement must be avoided.
Never return spills in original containers for re-use.

SECTION 7. HANDLING AND STORAGE

Handling

Precautions for safe handling : For personal protection see section 8.
Avoid formation of aerosol.
Do not breathe vapours or spray mist.
Avoid contact with skin.
Smoking, eating and drinking should be prohibited in the application area.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Obtain special instructions before use.

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Operational and technical measures : Use explosion protected equipment.
Keep away from sources of ignition - No smoking.
No sparking tools should be used.
Keep away from reducing agents (e.g. amines), acids, alkalis and heavy metal compounds (e.g. accelerators, driers, metal soaps).
Do not cut or weld on or near this container even when empty.
Keep away from combustible material.

Contact prevention : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.
Wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Conditions for safe storage : Prevent unauthorized access.
No smoking.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.
Keep only in original container.
Store away from other materials.

Further information on storage stability : If product freezes or separates, contact the manufacturer.

Maximum storage temperature is for quality only.

No decomposition if stored and applied as directed.

Minimum storage temperature: : Avoid temperatures below:
-30 °C

Maximum storage temperature: : 10 °C

Specific end use(s)

Specific use(s) : Consult the technical guidelines for the use of this substance/mixture.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Contains no substances with occupational exposure limit values.

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Carbon dioxide	124-38-9	LPP	4.375 ppm 7.875 mg/m ³	CL OEL
		LPT	30.000 ppm 54.000 mg/m ³	CL OEL
		TWA	5.000 ppm	ACGIH
		STEL	30.000 ppm	ACGIH
tert-Butanol	75-65-0	TWA	100 ppm	ACGIH
		TWA	100 ppm	ACGIH
		LPP	350 ppm 1.435 mg/m ³	CL OEL
Heptane	142-82-5	LPT	500 ppm 2.050 mg/m ³	CL OEL
		TWA	400 ppm	ACGIH
		STEL	500 ppm	ACGIH

Appropriate technical controls : Explosion proof ventilation recommended.
Effective exhaust ventilation system

Personal protective equipment

Eye/face protection : Tightly fitting safety goggles

Skin protection : Protective suit

Hand protection

Material : Neoprene

Material : Nitrile rubber

Respiratory protection : In the case of vapour or aerosol formation use a respirator with an approved filter.
Filter A

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	:	liquid
Colour	:	colourless
Odour	:	slight
Odour Threshold	:	No data available
pH	:	neutral
Melting point	:	< -30 °C
Boiling point	:	Decomposition: Decomposes below the boiling point. Not applicable
Flash point	:	Above the SADT value
Evaporation rate	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	1,2 hPa (65 °C)
Vapour density	:	No data available
Relative density	:	0,9 (20 °C)
Density	:	0,9 g/cm ³ (20 °C)
Solubility(ies) Water solubility	:	immiscible
Partition coefficient: n-octanol/water	:	No data available

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Auto-ignition temperature	:	Test method not applicable
Decomposition temperature	:	SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.
Viscosity		
Viscosity, kinematic	:	4,3 mm ² /s (20 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	Not applicable
Other information		
Flammability (liquids)	:	Decomposition products may be flammable.
Self-Accelerating decomposition temperature (SADT)	:	35 °C
Self-ignition	:	Not applicable
Active Oxygen Content	:	7,17 %
Organic peroxides	:	97 %

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under normal conditions.
Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	Confinement must be avoided. Heat, flames and sparks.

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Incompatible materials	:	Contact with the following incompatible materials will result in hazardous decomposition: Acids and bases Iron Copper Reducing agents Heavy metals Rust Do not mix with peroxide accelerators, unless under controlled processing. Use only stainless steel 316, PP, polyethylene or glass-lined equipment. For queries regarding the suitability of other materials please contact the supplier.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.
Hazardous decomposition products	:	Carbon dioxide tert-Butanol Heptane 3-tert-Butoxyheptane
Thermal decomposition	:	SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.
Self-Accelerating decomposition temperature (SADT)	:	35 °C

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Components:

tert-Butyl peroxy-2-ethylhexanoate:

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Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

tert-Butyl peroxy-2-ethylhexanoate:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage or eye irritation

Not classified based on available information.

Components:**tert-Butyl peroxy-2-ethylhexanoate:**

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

tert-Butyl peroxy-2-ethylhexanoate:

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

Respiratory or skin sensitisation**Skin sensitisation**

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:**tert-Butyl peroxy-2-ethylhexanoate:**

Species : Guinea pig
Assessment : May cause sensitisation by skin contact.
Method : OECD Test Guideline 406
Result : Causes sensitisation.

tert-Butyl peroxy-2-ethylhexanoate:

Species : Guinea pig
Assessment : May cause sensitisation by skin contact.
Method : OECD Test Guideline 406

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Result : Causes sensitisation.

Germ cell mutagenicity

Not classified based on available information.

Components:**tert-Butyl peroxy-2-ethylhexanoate:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung fibroblasts
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: positive

Test Type: Ames test
Test system: Bacteria
Method: OECD Test Guideline 471
Result: Positive results in some in vitro tests.

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

Test Type: Transgenic rodent germ cell gene mutation assay
Species: Mouse (male)
Application Route: Oral
Method: OECD Test Guideline 488
Result: negative

tert-Butyl peroxy-2-ethylhexanoate:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung fibroblasts
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: positive

Test Type: Ames test
Test system: Bacteria
Method: OECD Test Guideline 471
Result: Positive results in some in vitro tests.

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male and female)

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Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

Test Type: Transgenic rodent germ cell gene mutation assay
Species: Mouse (male)
Application Route: Oral
Method: OECD Test Guideline 488
Result: negative

Carcinogenicity

Not classified based on available information.

Components:**tert-Butyl peroxy-2-ethylhexanoate:**

Remarks : study scientifically unjustified

tert-Butyl peroxy-2-ethylhexanoate:

Remarks : study scientifically unjustified

Reproductive toxicity

May damage fertility.

Components:**tert-Butyl peroxy-2-ethylhexanoate:**

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Strain: wistar
Application Route: Oral
General Toxicity - Parent: NOEL: 300 mg/kg bw/day
Method: OECD Test Guideline 421

Species: Rat, male and female
Strain: wistar
Application Route: Oral
General Toxicity - Parent: NOAEL: 300 mg/kg bw/day
General Toxicity F1: NOAEL: 300 mg/kg bw/day
Fertility: NOAEL: 100 mg/kg bw/day
Method: OECD Test Guideline 443

Effects on foetal : Species: Rabbit

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development Application Route: Oral
General Toxicity Maternal: NOAEL: 30 mg/kg bw/day
Developmental Toxicity: NOAEL: 100 mg/kg bw/day
Method: OECD Test Guideline 414

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

tert-Butyl peroxy-2-ethylhexanoate:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Strain: wistar
Application Route: Oral
General Toxicity - Parent: NOEL: 300 mg/kg bw/day
Method: OECD Test Guideline 421

Species: Rat, male and female
Strain: wistar
Application Route: Oral
General Toxicity - Parent: NOAEL: 300 mg/kg bw/day
General Toxicity F1: NOAEL: 300 mg/kg bw/day
Fertility: NOAEL: 100 mg/kg bw/day
Method: OECD Test Guideline 443

Effects on foetal development : Species: Rabbit
Application Route: Oral
General Toxicity Maternal: NOAEL: 30 mg/kg bw/day
Developmental Toxicity: NOAEL: 100 mg/kg bw/day
Method: OECD Test Guideline 414

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

Specific particular organ toxicity - single exposure

Not classified based on available information.

Components:**tert-Butyl peroxy-2-ethylhexanoate:**

Remarks : Not classified due to data which are conclusive although insufficient for classification.

tert-Butyl peroxy-2-ethylhexanoate:

Remarks : Not classified due to data which are conclusive although

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insufficient for classification.

Specific particular organ toxicity - repeated exposure

Not classified based on available information.

Components:**tert-Butyl peroxy-2-ethylhexanoate:**

Remarks : Not classified due to data which are conclusive although insufficient for classification.

tert-Butyl peroxy-2-ethylhexanoate:

Remarks : Not classified due to data which are conclusive although insufficient for classification.

Repeated dose toxicity**Components:****tert-Butyl peroxy-2-ethylhexanoate:**

Species : Rat, male and female
NOAEL : 450 mg/kg bw/day
Method : OECD Test Guideline 408

tert-Butyl peroxy-2-ethylhexanoate:

Species : Rat, male and female
NOAEL : 450 mg/kg bw/day
Method : OECD Test Guideline 408

Inhalation hazard

Not classified based on available information.

Further information**Product:**

Remarks : No further data available.

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SECTION 12. ECOLOGICAL INFORMATION**Toxicity****Components:****tert-Butyl peroxy-2-ethylhexanoate:**

- Toxicity to fish : LC50 (Poecilia reticulata (guppy)): 8,66 mg/l
Exposure time: 96 h
Test Type: Fresh water
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7,5 mg/l
Exposure time: 48 h
Test Type: Fresh water
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 0,018 mg/l
Exposure time: 72 h
Test Type: Fresh water
Method: OECD Test Guideline 201
- EC50 (Pseudokirchneriella subcapitata (green algae)): 0,44 mg/l
Exposure time: 72 h
Test Type: Fresh water
Method: OECD Test Guideline 201
- M-Factor (Acute aquatic toxicity) : 1
- Toxicity to microorganisms : EC50 (activated sludge): 64 mg/l
Exposure time: 0,5 h
Test Type: static test
Method: OECD Test Guideline 209
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,45 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

tert-Butyl peroxy-2-ethylhexanoate:

- Toxicity to fish : LC50 (Poecilia reticulata (guppy)): 8,66 mg/l
Exposure time: 96 h

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- Test Type: Fresh water
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7,5 mg/l
Exposure time: 48 h
Test Type: Fresh water
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 0,018 mg/l
Exposure time: 72 h
Test Type: Fresh water
Method: OECD Test Guideline 201
- EC50 (Pseudokirchneriella subcapitata (green algae)): 0,44 mg/l
Exposure time: 72 h
Test Type: Fresh water
Method: OECD Test Guideline 201
- M-Factor (Acute aquatic toxicity) : 1
- Toxicity to microorganisms : EC50 (activated sludge): 64 mg/l
Exposure time: 0,5 h
Test Type: static test
Method: OECD Test Guideline 209
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,45 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

Persistence and degradability**Components:****tert-Butyl peroxy-2-ethylhexanoate:**

- Biodegradability : aerobic
Result: Readily biodegradable.
Biodegradation: 65 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

tert-Butyl peroxy-2-ethylhexanoate:

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Biodegradability : aerobic
Result: Readily biodegradable.
Biodegradation: 65 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Bioaccumulative potential**Components:****tert-Butyl peroxy-2-ethylhexanoate:**

Bioaccumulation : Bioconcentration factor (BCF): 202,4
Method: QSAR

Partition coefficient: n-octanol/water : log Pow: 4,79 (20 °C)
Method: Regulation (EC) No. 440/2008, Annex, A.8

tert-Butyl peroxy-2-ethylhexanoate:

Bioaccumulation : Bioconcentration factor (BCF): 202,4
Method: QSAR

Partition coefficient: n-octanol/water : log Pow: 4,79 (20 °C)
Method: Regulation (EC) No. 440/2008, Annex, A.8

Mobility in soil**Product:**

Mobility : Medium: Soil
Remarks: No data available

Other adverse effects**Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Components:**tert-Butyl peroxy-2-ethylhexanoate:**

Results of PBT and vPvB assessment : Not classified as PBT or vPvB

tert-Butyl peroxy-2-ethylhexanoate:

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Results of PBT and vPvB assessment : Not classified as PBT or vPvB

SECTION 13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of contents/container in accordance with local regulation.

Contaminated packaging, and contaminated material : Empty remaining contents.
Dispose of as unused product.
Do not burn, or use a cutting torch on, the empty drum.
Due to the high risk of contamination recycling/recovery is not recommended.
Follow all warnings even after the container is emptied.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

UN number : UN 3113
Proper shipping name : ORGANIC PEROXIDE TYPE C, LIQUID, TEMPERATURE CONTROLLED
(tert-Butyl peroxy-2-ethylhexanoate)
Class : 5.2
Packing group : Not assigned by regulation
Labels : 5.2

IATA-DGR

Not permitted for transport

IMDG-Code

UN number : UN 3113
Proper shipping name : ORGANIC PEROXIDE TYPE C, LIQUID, TEMPERATURE CONTROLLED
(tert-Butyl peroxy-2-ethylhexanoate)
Class : 5.2
Packing group : Not assigned by regulation
Labels : 5.2

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

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

National Regulations**NCh382**

UN number : UN 3113
Proper shipping name : ORGANIC PEROXIDE TYPE C, LIQUID, TEMPERATURE CONTROLLED
(tert-Butyl peroxy-2-ethylhexanoate)
Class : 5.2
Packing group : Not assigned by regulation
Labels : 5.2
Environmentally hazardous : yes
Remarks : The control temperature is the maximum temperature at which the formulation can be transported safely during a prolonged period of time.

Special precautions for user

Remarks : The control temperature is the maximum temperature at which the formulation can be transported safely during a prolonged period of time.

Further information for transport

Control temperature : 20 °C

Emergency temperature : 25 °C

The transport classification(s) provided herein are for informational purposes only. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION**National Regulations**

Chile. Decree 190. Carcinogenic Substances, Hazardous Waste Management. : tert-Butyl peroxy-2-ethylhexanoate

Decree 1358 - Establishment of rules governing the control measures of precursors and essential : Not applicable

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chemicals.

Resolution 408/16 Exempt, Approving List of Health Hazardous Substances : Included in list of Article 3, item a), Classification according to NCh382

Other regulations

Decree 43/2015, Approving Regulation on Storage of Hazardous Substances
NCh 2245:2021 Safety data sheet for chemical products - Content and order of sections
NCh 2190:2019 Land transport of dangerous goods - Hazard identification marks
NCh 382:2021 Dangerous Goods – Classification
Decree 57 of 2019, Regulation on Classification, Labeling, and Notification of Hazardous Chemicals and Mixtures
D.S. 148/03 Sanitary Regulation on hazardous wastes handling
D.S. 298/94 Regulation on transport of hazardous cargo on streets and roads
D.S. 594/99 Regulation on sanitary and environmental basic conditions at work places

International Regulations**The components of this product are reported in the following inventories:**

TCSI : On the inventory, or in compliance with the inventory
TSCA : All substances listed as active on the TSCA inventory
AIIC : On the inventory, or in compliance with the inventory
DSL : All components of this product are on the Canadian DSL

ENCS : On the inventory, or in compliance with the inventory
ISHL : On the inventory, or in compliance with the inventory
KECI : On the inventory, or in compliance with the inventory
PICCS : On the inventory, or in compliance with the inventory
IECSC : On the inventory, or in compliance with the inventory
NZIoC : On the inventory, or in compliance with the inventory
TECI : On the inventory, or in compliance with the inventory

The receiver should verify the possible existence of legal regulations applicable to chemical.

SECTION 16. OTHER INFORMATION

SAFETY DATA SHEET

TRIGONOX 21S

Version 3.10 Revision Date: 2023.03.22 CL / EN Date of last issue: 2022.11.04
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Date format : yyyy/mm/dd

Full text of H-Statements

H242 : Heating may cause a fire.
H317 : May cause an allergic skin reaction.
H360F : May damage fertility.
H400 : Very toxic to aquatic life.
H411 : Toxic to aquatic life with long lasting effects.

Further information

Other information : This data sheet contains changes from the previous version in section(s):
Hazards identification
Composition/information on ingredients
Toxicological information
Ecological information

Abbreviations and acronyms

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard
Org. Perox. : Organic peroxides
Repr. : Reproductive toxicity
Skin Sens. : Skin sensitisation

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
CL OEL : Chile. Regulation on basic sanitary and environmental conditions in the workplace

ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
CL OEL / LPP : Time Weighted Limit Value
CL OEL / LPT : Short Term Limit Value

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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

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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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. 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 a 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.

CL / EN

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.