SAFETY DATA SHEET

according to the Globally Harmonized System and US regulation 29 CFR 1910.1200

TRIGONOX BPIC-CH75

Version 3 | Revision Date 06/25/2021 | Print Date 08/02/2021 | US / Z8

1. IDENTIFICATION

Product name	:	TRIGONOX BPIC-CH75
Product Use Description	:	Specific use(s): Polymerization initiator
Company	:	Nouryon Functional Chemicals LLC 131 S Dearborn St, Suite 1000 Chicago IL 60603-5566 US
Telephone	:	+18008287929
Fax	:	+13125447188
E-mail address	:	polymer.amer@nouryon.com
Emergency telephone	:	24 hours:+31 57 06 79211, CHEMTREC-USA:1-800-424-9300, CANUTEC-CANADA:1-613-996-6666, 化学事故应急咨询电话：国家化学事故应急响应中心 +86 532 8388 9090-: Nouryon - USA: (914) 693-6946 CHEMTREC (24-hr): (800) 424-9300 (Toll-free in the U.S., Canada and the U.S. Virgin Islands) CHEMTREC (24-hr): (703) 527-3887 (For calls originating elsewhere / collect calls are accepted)

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Clear liquid
Color	colorless
Odor	Faint.

GHS Classification

Flammable liquids, Category 3
Organic peroxides, Type C
Skin irritation, Category 2
Skin sensitization, Sub-category 1B
Aspiration hazard, Category 1
Short-term (acute) aquatic hazard, Category 1
Long-term (chronic) aquatic hazard, Category 1

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H226 Flammable liquid and vapor.
H242 Heating may cause a fire.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**
P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P220 Keep/Store away from clothing/ combustible materials.
P233 Keep container tightly closed.
P234 Keep only in original container.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing mist, vapours or spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P331 Do NOT induce vomiting.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
P391 Collect spillage.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P410 Protect from sunlight.
P420 Store away from other materials.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity:

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 component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name : Organic peroxide
Pure substance/mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Classification	Concentration [% W/W]
tert-Butylperoxy isopropyl carbonate	2372-21-6	Org. Perox. A; H240 Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute): 10 M-Factor (Chronic): 1	>= 74 - <= 76
Petroleum naphtha	64742-48-9	Asp. Tox. 1; H304 Aquatic Chronic 4; H413	>= 24 - <= 26

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this material 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.
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.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

Notes to physician

Symptoms : The symptoms and effects are as expected from the hazards

as shown in section 2. No specific product related symptoms are known.

Risks : May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.

Treatment : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire fighting / Specific hazards arising from the chemical : 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.

Combustion products : Fire will produce smoke containing hazardous combustion products (see section 10).

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

Further information : 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 be disposed of in accordance with local regulations.

See also Section 9. Physical and chemical properties: Safety data

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Wear respiratory protection.
Ensure adequate ventilation.
Remove all sources of ignition.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Emergency measures on : Evacuate personnel to safe areas.

accidental release		Only qualified personnel equipped with suitable protective equipment may intervene. Prevent unauthorized persons entering the zone.
Environmental precautions	:	Prevent product from entering drains. Discharge into the environment must be avoided.
Methods for cleaning up / Methods for containment	:	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.
Reference to other sections	:	For disposal considerations see section 13. For personal protection see section 8.

7. HANDLING AND STORAGE

Handling

Advice on safe handling	:	For personal protection see section 8. Avoid formation of aerosol. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing. Smoking, eating and drinking should be prohibited in the application area. Container may be opened only under exhaust ventilation hood. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	:	Use explosion protected equipment. Avoid formation of aerosol. Keep away from sources of ignition - No smoking. No sparking tools should be used. Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps). Do not cut or weld on or near this container even when empty. Take measures to prevent the build up of electrostatic charge. Keep away from combustible material.
Temperature class	:	It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded.

Storage

Requirements for storage areas and containers	:	Prevent unauthorized access. No smoking. Keep in a well-ventilated place.

Electrical installations / working materials must comply with the technological safety standards.
Keep only in original container.
Store away from other materials.

Minimum storage temperature: : Avoid temperatures below: -20 °C (-4 °F)

Maximum storage temperature: : 25 °C (77 °F)

Other data : If product freezes or separates, contact the manufacturer.

Maximum storage temperature is for quality only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Petroleum naphtha	64742-48-9	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	400 ppm 1,600 mg/m3	OSHA P0

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-Propanol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1
		TWA	400 ppm 980 mg/m3	OSHA P0
		STEL	500 ppm 1,225 mg/m3	OSHA P0
		PEL	400 ppm 980 mg/m3	CAL PEL
		STEL	500 ppm 1,225 mg/m3	CAL PEL
tert-Butanol	75-65-0	TWA	100 ppm	ACGIH
		TWA	100 ppm 300 mg/m3	NIOSH REL

		ST	150 ppm 450 mg/m3	NIOSH REL
		TWA	100 ppm 300 mg/m3	OSHA Z-1
		TWA	100 ppm 300 mg/m3	OSHA P0
		STEL	150 ppm 450 mg/m3	OSHA P0
		TWA	100 ppm	ACGIH
		STEL	150 ppm 450 mg/m3	CAL PEL
		PEL	100 ppm 300 mg/m3	CAL PEL
Acetone	67-64-1	TWA	250 ppm	ACGIH
		STEL	500 ppm	ACGIH
		TWA	250 ppm 590 mg/m3	NIOSH REL
		TWA	250 ppm	ACGIH
		TWA	1,000 ppm 2,400 mg/m3	OSHA Z-1
		STEL	500 ppm	ACGIH
		STEL	1,000 ppm 2,400 mg/m3	OSHA P0
		TWA	750 ppm 1,800 mg/m3	OSHA P0
		C	3,000 ppm	CAL PEL
		PEL	500 ppm 1,200 mg/m3	CAL PEL
		STEL	750 ppm 1,780 mg/m3	CAL PEL
Carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm 9,000 mg/m3	NIOSH REL
		ST	30,000 ppm 54,000 mg/m3	NIOSH REL
		TWA	5,000 ppm 9,000 mg/m3	OSHA Z-1
		TWA	10,000 ppm 18,000 mg/m3	OSHA P0
		STEL	30,000 ppm 54,000 mg/m3	OSHA P0
		STEL	30,000 ppm 54,000 mg/m3	CAL PEL
		PEL	5,000 ppm 9,000 mg/m3	CAL PEL

Engineering measures : Explosion proof ventilation recommended.
Effective exhaust ventilation system

Personal protective equipment

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

Filter A

Hand protection
Material : Neoprene

Material : Nitrile rubber

Eye protection : Tightly fitting safety goggles

Skin and body protection : Protective suit

Hygiene measures : 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.

Environmental exposure controls
General advice : Prevent product from entering drains.
Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Clear liquid
Color	:	colorless
Odor	:	Faint.
Odor Threshold	:	No data available
pH	:	Not applicable
Melting point	:	-4 °F / -20 °C
Boiling point/boiling range	:	Decomposes below the boiling point.
Flash point	:	118 °F / 48 °C Method: closed cup
Evaporation rate	:	No data available
Flammability (liquids)	:	Decomposition products may be flammable.
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available

Vapor pressure	:	2 hPa (100 °F / 38 °C)
Relative vapor density	:	No data available
Relative density	:	0.90 (68 °F / 20 °C)
Bulk density	:	Not applicable
Solubility(ies)		
Water solubility	:	immiscible (68 °F / 20 °C)
Solubility in other solvents	:	miscible with most organic solvents
Partition coefficient: n-octanol/water	:	No data available
Autoignition 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.
Self-Accelerating decomposition temperature (SADT)	:	158 °F / 70 °C
Viscosity		
Viscosity, dynamic	:	2.3 mPa.s (68 °F / 20 °C)
Viscosity, kinematic	:	2.56 mm2/s (68 °F / 20 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	Not classified as oxidizing.
Active Oxygen Content	:	6.72 - 6.90 %
Organic peroxides	:	75 %

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

10. STABILITY AND REACTIVITY

Conditions to avoid	:	Confinement must be avoided. Heat, flames and sparks.
Materials to avoid	:	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	:	2-Propanol tert-Butanol Acetone Methane Carbon dioxide
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.
Reactivity	:	Stable under normal conditions.
Chemical stability	:	Stable under recommended storage conditions.
Hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Self-Accelerating decomposition temperature (SADT)	:	70 °C (158 °F)

11. TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION:

Hazard Summary

Acute toxicity	:	Not classified based on available information.
Skin corrosion/irritation	:	Causes skin irritation.
Serious eye damage/eye irritation	:	Not classified based on available information.
Respiratory or skin sensitization	:	Respiratory sensitization: Not classified based on available information. Skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity	:	Not classified based on available information.
Carcinogenicity	:	Not classified based on available information.
Reproductive toxicity	:	Not classified based on available information.
STOT-single exposure	:	Not classified based on available information.
STOT-repeated exposure	:	Not classified based on available information.
Aspiration hazard	:	May be fatal if swallowed and enters airways.

Potential Health Effects

Inhalation	:	Inhalation of aerosols may cause irritation to mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. Contains organic solvents. May be fatal if swallowed and enters airways. Inhalation may cause central nervous system effects.
Skin	:	Causes skin irritation. May cause an allergic skin reaction.
Eyes	:	May cause eye irritation.
Ingestion	:	May cause irritation of the mucous membranes. May be fatal if swallowed and enters airways.
Aggravated Medical Condition	:	None known.
Symptoms of Overexposure	:	The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

Toxicology Assessment

Further information	:	Solvents may degrease the skin.

Test result

Sensitization	:	Species: Guinea pig Classification: The product is a skin sensitizer, sub-category 1B. Method: OECD Test Guideline 406

Carcinogenicity:

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 component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated

carcinogen by NTP.

TOXICOLOGY DATA FOR THE INGREDIENTS:

Toxicology Assessment

Component: Petroleum naphtha

CMR effects : Carcinogenicity: Not carcinogenic.
Mutagenicity: Not mutagenic.
Teratogenicity: No effects on or via lactation
Reproductive toxicity: No toxicity to reproduction

Test result

Component: tert-Butylperoxy isopropyl carbonate

Acute oral toxicity : LD50: > 2,000 mg/kg
Species: Rat
Method: OECD Test Guideline 423

Acute dermal toxicity : LD50: > 2,000 mg/kg
Species: Rat
Method: OECD Test Guideline 402

Skin irritation : Species: Rabbit
Result: Skin irritation
Method: OECD Test Guideline 404
Exposure time: 4 h

Eye irritation : Species: Rabbit
Method: OECD Test Guideline 405
slight irritation
Based on available data, the classification criteria are not met.

Sensitization : Species: Guinea pig
Classification: The product is a skin sensitizer, sub-category 1B.
Method: OECD Test Guideline 406

Repeated dose toxicity : Species: Rat, male and female
NOAEL: 450 mg/kg bw/day
Application Route: Oral
Number of exposures: daily
Dose: 50, 150, 450
Method: OECD Test Guideline 422
GLP: yes
Not classified due to data which are conclusive although insufficient for classification.

Germ cell mutagenicity
Genotoxicity in vitro : reverse mutation assay

Salmonella typhimurium
Result: Positive results in some in vitro tests.
Method: OECD Test Guideline 471

reverse mutation assay
Escherichia coli
Result: Positive results in some in vitro tests.
Method: OECD Test Guideline 471

Genotoxicity in vivo : In vivo micronucleus test
Species: Mouse
Method: OECD Test Guideline 474
Result: No evidence of genotoxic effects in vivo.

Reproductive toxicity/Fertility : Species: Rat, male and female
Strain: Wistar
Application Route: Oral
Dose: 50, 150, 450 mg/kg bw/day
General Toxicity Parent: No-observed-effect level: 450 mg/kg bw/day
Method: OECD Test Guideline 422
GLP: yes
Not classified due to data which are conclusive although insufficient for classification.

Reproductive toxicity/Development/Teratogenicity : Species: Rat, male and female
Strain: Wistar
Application Route: Oral
Dose: 50, 150, 450
General Toxicity Maternal: No-observed-effect level: 450 mg/kg bw/day
Method: OECD Test Guideline 422
GLP: yes
Not classified due to data which are conclusive although insufficient for classification.

Aspiration toxicity : No aspiration toxicity classification

Component: Petroleum naphtha

Acute oral toxicity : LD50: > 5,000 mg/kg
Species: Rat
Information taken from reference works and the literature.

Acute dermal toxicity : LD50: > 5,000 mg/kg
Species: Rabbit
Information taken from reference works and the literature.

Skin irritation : Result: Repeated exposure may cause skin dryness or cracking.
Method: OECD Test Guideline 404
Information taken from reference works and the literature.

Result: Mild skin irritation

Information taken from reference works and the literature.

Sensitization	:	Classification: Does not cause skin sensitization. Method: OECD Test Guideline 406 Information taken from reference works and the literature.
Carcinogenicity	:	Result: no effects
Target Organ Systemic Toxicant - Single exposure	:	The substance or mixture is not classified as specific target organ toxicant, single exposure.
Target Organ Systemic Toxicant - Repeated exposure	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity	:	May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

PRODUCT INFORMATION:

Ecotoxicology Assessment

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

Further information on ecology

Hazardous to the ozone layer

Regulation	:	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	:	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

COMPONENTS:

Ecotoxicology Assessment

Component: Petroleum naphtha

Long-term (chronic) aquatic hazard	:	May cause long lasting harmful effects to aquatic life.

Test result

Component: tert-Butylperoxy isopropyl carbonate

Ecotoxicity effects

Toxicity to fish	:	LC50: > 10 - < 100 mg/l Exposure time: 48 h Species: Fish The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to daphnia and other aquatic invertebrates	:	EC50: > 3.6 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Test Type: semi-static test Method: OECD Test Guideline 202 NOEC: 0.9 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Test Type: semi-static test Method: OECD Test Guideline 202
Toxicity to algae	:	NOEC: 0.002 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (algae) Test Type: Growth inhibition Method: OECD Test Guideline 201 ErC50: 0.059 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (algae) Test Type: Growth inhibition Method: OECD Test Guideline 201
M-Factor (Acute)	:	10
M-Factor (Chronic)	:	1
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: > 0.63 mg/l Exposure time: 10 d Species: Daphnia magna (Water flea) Test Type: semi-static test

Elimination information (persistence and degradability)

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 78 % Exposure time: 28 d Method: OECD Test Guideline 301D GLP: yes

Component: Petroleum naphtha

Ecotoxicity effects

Toxicity to fish	:	LC0: 1,000 mg/l Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout)
Information taken from reference works and the literature.

Toxicity to daphnia and other aquatic invertebrates : EC0: 1,000 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Information taken from reference works and the literature.

Toxicity to algae : EC0: 1,000 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Information taken from reference works and the literature.

Elimination information (persistence and degradability)

Bioaccumulation : No data available

Mobility : Disperses rapidly in air.

Biodegradability : Test Type: Ready biodegradability
Biodegradation: 80 %
Exposure time: 28 d
Information taken from reference works and the literature.

13. DISPOSAL CONSIDERATIONS

Product : 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 : 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.

14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 3103
Proper shipping name : Organic peroxide type C, liquid (tert-Butylperoxy isopropyl carbonate)
Class : 5.2
Subsidiary risk : HEAT

Packing group	:	Not Assigned
Labels	:	5.2 (HEAT)
Packing instruction (cargo aircraft)	:	570
Packing instruction (passenger aircraft)	:	570
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 3103
Proper shipping name	:	ORGANIC PEROXIDE TYPE C, LIQUID (tert-Butylperoxy isopropyl carbonate)
Class	:	5.2
Packing group	:	Not Assigned
Labels	:	5.2
EmS Code	:	F-J, S-R
Marine pollutant	:	yes (tert-Butylperoxy isopropyl carbonate)

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 3103
Proper shipping name	:	Organic peroxide type C, liquid
	:	(tert-Butylperoxy isopropyl carbonate, 75%)
Class	:	5.2
Packing group	:	Not Assigned
Labels	:	5.2
ERG Code	:	146
Marine pollutant	:	yes (tert-Butylperoxy isopropyl carbonate)
Reportable Quantity	:	This product does not contain an environmentally hazardous substance per 49 CFR 172.101, Appendix A.

15. REGULATORY INFORMATION

Notification status

TCSI	:	YES. On the inventory, or in compliance with the inventory
AIIC	:	YES. On the inventory, or in compliance with the inventory
DSL	:	YES. All components of this product are on the Canadian DSL
ENCS	:	YES. On the inventory, or in compliance with the inventory
ISHL	:	NO. Not in compliance with the inventory
KECI	:	YES. On the inventory, or in compliance with the inventory
PICCS	:	YES. On the inventory, or in compliance with the inventory
IECSC	:	YES. On the inventory, or in compliance with the inventory
NZIoC	:	NO. Not in compliance with the inventory
TSCA	:	YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.

For explanation of abbreviations, see section 16.

TSCA list

TSCA 5(a)(2)	:	No substances are subject to a Significant New Use Rule.
TSCA 12(b)	:	No substances are subject to TSCA 12(b) export notification requirements.

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS 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	:	Flammable (gases, aerosols, liquids, or solids) Organic peroxides Respiratory or skin sensitization Aspiration hazard Skin corrosion or irritation
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.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals subject to disclosure and listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

tert-Butylperoxy isopropyl carbonate	2372-21-6
Petroleum naphtha	64742-48-9

Maine Chemicals of High Concern

This product does not contain any chemicals that are listed as Maine Chemicals of High Concern.

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Full text of H-Statements

H240	:	Heating may cause an explosion.
H304	:	May be fatal if swallowed and enters airways.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H413	:	May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CAL PEL	:	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CAL PEL / STEL	:	Short term exposure limit
CAL PEL / PEL	:	Permissible exposure limit
CAL PEL / C	:	Ceiling
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average

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 concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG -

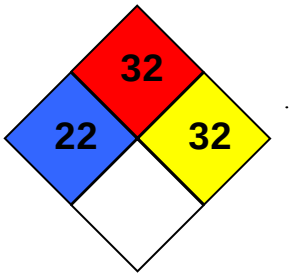
International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal 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; 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

Further information

HMIS Classification : Health Hazard: 2
Chronic Health Hazard: /
Flammability: 3
Physical hazards: 3

Health Hazard: 2
Chronic Health Hazard: /
Flammability: 2
Physical hazards: 2

NFPA Classification : Health Hazard: 2
Fire Hazard: 3
Reactivity Hazard: 3
Health Hazard: 2
Fire Hazard: 2
Reactivity Hazard: 2



Notification status explanation

TCSI	Taiwan Chemical Substance Inventory (TCSI)
AIIC	Australian Inventory of Industrial Chemicals
DSL	Canadian Domestic Substances List (DSL)
ENCS	Japan. ENCS - Existing and New Chemical Substances Inventory
ISHL	Japan. ISHL - Inventory of Chemical Substances
KECI	Korea. Korean Existing Chemicals Inventory (KECI)
PICCS	Philippines Inventory of Chemicals and Chemical Substances (PICCS)
IECSC	China. Inventory of Existing Chemical Substances in China (IECSC)
NZIoC	New Zealand. Inventory of Chemical Substances

TSCA	United States TSCA Inventory

Further information

Revision Date	06/25/2021

This data sheet contains changes from the previous version in section(s):
Hazards identification

The information in this safety data sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The user must determine the appropriate measures that need to be implemented for the use and handling of this product in the c ontext of the user's operations and use of this product. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old,call to make certain that this sheet is current. No warranty is made as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. User must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. Nothing contained herein shall be construed as granting or extending any license under any patent.

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.