

SAFETY DATA SHEET

Tert-amyl hydroperoxide85%

Lanzhou Auxiliary Agent Plant Co., Ltd

SDS

- According to GHS (Sixth Revised Edition)

Section 1 Product and Company Identification

> Product Identifier

Product Name	Tert-amyl hydroperoxide85%
Synonyms	-
CAS No.	-
EC No.	-
Molecular Formula	-

> Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses	Please consult manufacturer.
Uses Advised Against	Please consult manufacturer.

> Details of the Supplier of the Safety Data Sheet

Applicant Name	Lanzhou Auxiliary Agent Plant Co., Ltd
Application Address	No.358 Nanpoping Shajingyi Anning District, Lanzhou City, Gansu Province, China
Applicant Post Code	730079
Applicant Telephone	+86-931-7713668
Applicant Fax	+86-931-7766467
Applicant E-mail	543908218@qq.com
Supplier Name	Lanzhou Auxiliary Agent Plant Co., Ltd
Supplier Address	No.358 Nanpoping Shajingyi Anning District, Lanzhou City, Gansu Province, China
Supplier Post Code	730079
Supplier Telephone	+86-931-7713668
Supplier Fax	+86-931-7766467
Supplier E-mail	543908218@qq.com

> Emergency Phone Number

Emergency Phone Number	+86-931-7766493
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Section 2 Hazards Identification

Hazard class and label elements of the product according to GHS (the sixth revised edition):

> GHS Hazard Class

Flammable Liquids	Category 3
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Organic Peroxides	Type E
Acute Toxicity – Oral	Category 4
Acute Toxicity – Dermal	Category 3
Skin	Category 1
Corrosion/Irritation	Category 1
Sensitization – Skin	Category 1
Eye Damage/Irritation	Category 1
Acute Toxicity – Inhalation	Category 3
Germ Cell Mutagenicity	Category 2
Hazardous To The Aquatic Environment – Long-Term (Chronic) Hazard	Category 2

> GHS Label Elements

Pictogram



Signal Word

Danger

> Hazard Statements

H226	Flammable liquid and vapour
H242	Heating may cause a fire
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H331	Toxic if inhaled
H341	Suspected of causing genetic defects
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.
P233	Keep container tightly closed.
P234	Keep only in original packaging.
P235	Keep cool.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
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.
Response	
P312	Call a POISON CENTER/doctor, if you feel unwell.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301+P312	IF SWALLOWED: Call a POISON CENTER/ doctor, if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	
P403	Store in a well-ventilated place.
P405	Store locked up.
P410	Protect from sunlight.
P420	Store separately.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
Disposal	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 Composition/Information on Ingredients

Component	Concentration (weight percent, %)	CAS No.	EC No.
tert-pentyl hydroperoxide	Commercial secrets	3425-61-4	222-321-7
2-methylbutan-2-ol	Commercial secrets	75-85-4	200-908-9

Section 4 First Aid Measures

> Description of First Aid Measures

General Advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin Contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of First-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

> **Most Important Symptoms and Effects, both Acute and Delayed**

- 1 Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

> **Indication of Any Immediate Medical Attention and Special Treatment Needed**

- 1 Treat symptomatically.
- 2 Symptoms may be delayed.

Section 5 Fire Fighting Measures

> **Extinguishing Media**

Suitable Extinguishing Media
Unsuitable Extinguishing Media

> **Specific Hazards Arising from the Substance or Mixture**

- 1 Containers may explode when heated.
- 2 Fire exposed containers may vent contents through pressure relief valves.
- 3 May expansion or decompose explosively when heated or involved in fire.

> **Advice for Firefighters**

- 1 As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
- 2 Fight fire from a safe distance, with adequate cover.
- 3 Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6 Accidental Release Measure

> **Personal Precautions, Protective Equipment and Emergency Procedures**

- 1 Ensure adequate ventilation. Remove all sources of ignition.
- 2 Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
- 3 Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

> **Environmental Precautions**

- 1 Prevent further leakage or spillage if safe to do so.
- 2 Discharge into the environment must be avoided.

> **Methods and Materials for Containment and Cleaning Up**

- 1 Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
- 2 Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

- 3 Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Section 7 Handling and Storage

> Precautions for Handling

- 1 Handling is performed in a well ventilated place.
- 2 Wear suitable protective equipment.
- 3 Avoid contact with skin and eyes.
- 4 Keep away from heat/sparks/open flames/ hot surfaces.
- 5 Take precautionary measures against static discharges.

> Precautions for Storage

- 1 Keep containers tightly closed.
- 2 Keep containers in a dry, cool and well-ventilated place.
- 3 Keep away from heat/sparks/open flames/ hot surfaces.
- 4 Store away from incompatible materials and foodstuff containers.

Section 8 Exposure Controls/Personal Protection

> Control Parameters

Occupational Exposure Limit Values

Component	Country/Region	Limit Value - Eight Hours		Limit Value - Short Term	
		ppm	mg/m ³	ppm	mg/m ³
tert-pentyl hydroperoxide 3425-61-4	Latvia	-	5	-	-
2-methylbutan-2-ol 75-85-4	Germany (DFG)	20	73	80	292
	Denmark	100	360	200	720
	Austria	100	360	200	720

Biological Limit Values

No information available

Monitoring Methods

- 1 EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
- 2 GBZ/T 160.1~GBZ/T 160.81-2004 Determination of toxic substances in workplace air (Series standard).

> Engineering Controls

- 1 Ensure adequate ventilation, especially in confined areas.
- 2 Ensure that eyewash stations and safety showers are close to the workstation location.
- 3 Use explosion-proof electrical/ventilating/lighting/equipment.
- 4 Set up emergency exit and necessary risk-elimination area.

> Personal Protection Equipment

Eye Protection	Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
Hand Protection	Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU),US F739 or AS/NZS 2161.1 standard.
Respiratory protection	If exposure limits are exceeded or if irritation or other symptoms are

Skin and Protection	experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Body	Wear fire/flame resistant/retardant clothing and antistatic boots.

Section 9 Physical and Chemical Properties

Appearance: Light yellow transparent liquid	Odor: No information available
Odor Threshold: No information available	pH: No information available
Melting Point/Freezing Point (°C): No information available	Initial Boiling Point and Boiling Range (°C): No information available
Flash Point (°C)(Closed Cup): 48.9	Evaporation Rate: No information available
Flammability: Not applicable	Upper/lower explosive limits[%(v/v)]: Upper limit : No information available ; Lower limit : No information available
Vapor Pressure (MPa): No information available	Relative Vapour Density(Air = 1): No information available
Relative Density(Water=1): No information available	Solubility: No information available
n-Octanol/Water Partition Coefficient: No information available	Auto-Ignition Temperature(°C): No information available
Decomposition Temperature (°C): No information available	Kinematic Viscosity (mm²/s): No information available
Particle characteristics: Not applicable	

Section 10 Stability and Reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical Stability	Stable under proper operation and storage conditions.
Possibility of Hazardous Reactions	No information available
Conditions to Avoid	Incompatible materials, heat, flame and spark.
Incompatible Materials	No information available
Hazardous Decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11 Toxicological Information

> Acute Toxicity

Component	CAS No.	LD ₅₀ (Oral)	LD ₅₀ (Dermal)	LC ₅₀ (Inhalation, 4h)
2-methylbutan-2-ol	75-85-4	1000mg/kg(Rat)	No information available	No information available
tert-pentyl hydroperoxide	3425-61-4	864mg/kg(Rat)	No information available	No information available

> Skin Corrosion/Irritation

Causes severe skin burns and eye damage(Category 1)

> Serious Eye Damage/Irritation

Causes serious eye damage(Category 1)

> Skin Sensitization

May cause an allergic skin reaction(Category 1)

> Respiratory Sensitization

No information available

> Germ Cell Mutagenicity

Suspected of causing genetic defects(Category 2)

> Carcinogenicity

ID	CAS No.	Component	IARC	NTP
1	3425-61-4	tert-pentyl hydroperoxide	Not Listed	Not Listed
2	75-85-4	2-methylbutan-2-ol	Not Listed	Not Listed

> Reproductive Toxicity

No information available

> Reproductive Toxicity (Additional)

No information available

> STOT-Single Exposure

No information available

> STOT-Repeated Exposure

No information available

> Aspiration Hazard

No information available

Section 12 Ecological Information

> Acute Aquatic Toxicity

No information available

> Chronic Aquatic Toxicity

No information available

> Others

Persistence and Degradability

No information available

Bioaccumulative Potential	No information available
Mobility in Soil	No information available
Results of PBT and vPvB Assessment	tert-pentyl hydroperoxide does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII. 2-methylbutan-2-ol does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Section 13 Disposal Considerations

Waste Chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated Packaging Disposal Recommendations	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible. Refer to section 13.1and 13.2.

Section 14 Transport Information

Transporting Label



Marine pollutant	Yes
UN Number	3107
UN Proper Shipping Name	ORGANIC PEROXIDE TYPE E,LIQUID
Transport Hazard Class	5.2
Transport Subsidiary Hazard Class	None
Packing Group	Meet the class II packaging requirements

Section 15 Regulatory Information

> International Chemical Inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS
tert-pentyl hydroperoxide	✓	✓	✗	✓	✓	✓	✓	✗	✓
2-methylbutan-2-ol	✓	✓	✓	✓	✓	✓	✓	✓	✓

【EINECS】 European Inventory of Existing Commercial Chemical Substances.

【TSCA】 United States Toxic Substances Control Act Inventory.

【DSL】 Canadian Domestic Substances List.

【IECSC】 China Inventory of Existing Chemical Substances.

【NZIoC】 New Zealand Inventory of Chemicals.

【PICCS】 Philippines Inventory of Chemicals and Chemical Substances.

【KECI】 Existing and Evaluated Chemical Substances.

【AICS】 Australia Inventory of Chemical Substances.

【ENCS】 Existing And New Chemical Substances.

Note

"√" Indicates that the substance included in the regulations

"x" That no data or included in the regulations

Section 16 Additional Information

Creation Date	2017/12/18
Revision Date	2017/12/18
Reason for Revision	-

> Disclaimer

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 6th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user' s reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.