

# Chemical Safety Data Sheet

## Section 1 IDENTIFICATION

**GHS Product identifier:** Tert-amyl peroxyvalate  
**Other means of identification:** /  
**Recommended use of the chemical and restrictions on use:** /  
**Supplier's details:** Zibo Zhenghua Auxiliary Incorporated Company  
**Emergency phone number:** /

## Section 2 HAZARDS IDENTIFICATION

**Classification of the substance or mixture:**  
 Organic peroxides Type C  
 Specific target organ toxicity-single exposure category 3 (narcotic effects)  
 Aspiration hazard category 1  
 Hazardous to the aquatic environment (acute) Category 1  
 Hazardous to the aquatic environment (chronic) category 1

**GHS Label elements, including precautionary statements:**

Symbol



Signal word: Danger

Hazard statement(s): Heating may cause a fire. May cause drowsiness or dizziness. Swallowing and entering the respiratory tract can be fatal. Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

**Prevention:**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep only in original container. Keep cool. Keep container tightly closed. Ground/Bond container and receiving equipment. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. Avoid breathing dust/fume/gas/aerosol/steam/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

**Response:**

In case of fire: use water mist, foam, dry powder to extinguish the fire. If swallowed by mistake: immediately call the poisoning emergency center/doctor. Do not induce vomiting. In case of accidental inhalation: Move the person to a place with fresh air and maintain a comfortable position for breathing. If you feel unwell, call the poisoning emergency center/doctor. Collect spillage.

**Storage:**

Store in a well-ventilated place. Keep from sunlight. Store at temperatures not exceeding...°C/...°F. Store separately. Keep container tightly closed. The storage place needs to be locked.

**Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards which do not result in classification:** /

## Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.:	Concentration%
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Tert-amyl peroxyvalate	29240-17-3	75%
Isododecane	31807-55-3	25%

## Section 4 FIRST AID MEASURES

**Description of necessary first aid measures**

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Remove contaminated clothing and rinse with plenty of running water.

**In case of eye contact:** Rinse thoroughly with plenty of running water for at least 15 minutes and consult a physician.

**If ingestion:** Rinse mouth with water and do not induce vomiting. Consult a physician.

**Most important symptoms/effects, acute and delayed:**

There is evidence that this substance can cause respiratory irritation in some people. The human body's response to this stimulus will cause further lung damage. Inhalation of organic peroxide dust or vapors can irritate the throat and lungs and cause asthma-like symptoms. Overexposure can cause tearing, excessive salivation, fatigue, slowed breathing, difficulty breathing, headache, weakness, tremor, numbness, and pulmonary edema. Some people's skin contact with this substance can cause inflammation. This substance can aggravate the original dermatitis. If it gets into the eyes, the substance can cause serious eye damage. Eye contact with organic peroxides can cause cloudiness and redness, and long-term exposure can cause eye swelling and burns. Long-term or repeated skin contact may cause skin dryness and irritation, which may subsequently lead to dermatitis.

There is limited evidence that repeated or long-term occupational exposure may have cumulative health effects involving organs or biochemical systems. Long-term continuous exposure to peroxide can cause allergic skin reactions (reddening of the skin, peeling of the skin), and asthma.

**Indication of immediate medical attention and special treatment needed, if necessary: /**

## Section 5 FIREFIGHTING MEASURES

**Suitable extinguishing media:** Enter the fire from the upwind, spray water to cool the container, and move the container from the fire to the open space if possible. If there is liquid flowing, an embankment should be built to intercept the drifting flammable liquid or digging diversion. In case of fire, use water spray, foam, dry powder, carbon dioxide to extinguish the fire. It is forbidden to extinguish with columnar water.

**Specific hazards caused by chemicals:** their vapors and air can form explosive mixtures, which can cause combustion and explosion in case of open flames and high heat energy. Contact with reducing agents, accelerators, organic matter, combustibles, etc. will cause a violent reaction, there is a risk of combustion and explosion.

**Special protective actions for fire-fighters:** Firefighters must wear gas masks and full-body fire-fighting suits to extinguish the fire in the upwind direction. If possible, move the container from the fire to an open place. Spray water to keep the fire field container cool until the end of fire extinguishing. If the container in the fire scene has changed color or produces sound from the safety pressure relief device, it must be evacuated immediately. In case of fire, keep away to prevent injury. It is forbidden to cover with sand.

## Section 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergence procedures:** According to the influence area of liquid flow and vapor diffusion, a warning zone is defined, and irrelevant personnel are evacuated from the crosswind and upwind to the safe area. Eliminate all ignition sources. It is recommended that emergency responders wear positive pressure self-contained breathing apparatus and work clothes. Do

not touch or cross leaks. Do not allow the leaked material to come into contact with combustible substances (such as wood, paper, oil, etc.). Cut off the source of the leak as much as possible.

**Environmental precautions:** Prevent leaks from entering water bodies, sewers, basements or confined spaces.

**Methods and material for containment and cleaning up:** Small amount of leakage: Use inert, moist, non-combustible materials to absorb the leakage, and use clean non-sparking tools to collect in a plastic container with a loose lid and wait for disposal. Large amount of leakage: constructing dikes or digging pits to contain. Cleared under expert guidance.

#### Section 7 HANDLING AND STORAGE

**Precautions for safe handling:** Closed operation, strengthen ventilation. Operators must undergo special training and strictly abide by the operating regulations. It is recommended that the operator wear a filtering gas mask (half mask), wear chemical safety protective glasses, wear a rubber cloth gas mask, and wear latex gloves. Keep away from fire and heat, smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. Keep away from flammable and combustible materials. Prevent vapor from leaking into the air in the workplace. Avoid contact with reducing agents, acids and alkalis. Handle lightly when handling to prevent damage to packaging and containers. Vibration, impact and friction are prohibited. Equipped with corresponding varieties and quantities of fire fighting equipment and leakage emergency treatment equipment. Empty containers may be harmful residues.

**Conditions for safe storage,including any incompatibilities:** Commodities are usually stored after dilution. Store in a cool, ventilated warehouse. The storage temperature does not exceed -15°C, and the relative humidity does not exceed 80%. Keep away from fire and heat. It should be stored separately from reducing agents, acids, alkalis, flammables and edible chemicals, and avoid mixed storage. Use explosion-proof lighting and ventilation facilities. It is forbidden to use mechanical equipment and tools that easily generate sparks. The storage area should be equipped with leakage emergency treatment equipment and suitable containment materials. Vibration, impact and friction are prohibited.

#### Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Contoal parameters:/**

**Appropriate engineering controls:** The production process is closed and ventilation is strengthened. Keep the concentration in the air below the occupational exposure limit. Provide safety shower and eyewash equipment.

**Personal protection measures**

**Protective goggles/masks:** see respiratory protection.

**Skin protection:** Wear closed gas-proof clothing and rubber oil-resistant gloves.

**Respiratory protection:** When the concentration in the air is high, you should wear a filter gas mask (half mask). It is recommended to wear air respirator during emergency rescue or escape

**Thermal hazards:/**

#### Section 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance(physical state,colour etc)</b>	Colorless transparent liquid
<b>Odor</b>	With a pungent odor.
<b>Odor Threshold</b>	/
<b>PH</b>	/
<b>Melting point/freezing point</b>	/
<b>Initial boiling point and boiling range</b>	/
<b>Flash point</b>	> 59.0°C
<b>Evaporation rate</b>	/

<b>Flammability(solid, gas)</b>	/
<b>Upper/lower flammability or explosive limits</b>	/
<b>Vapour pressure</b>	/
<b>Vapour density</b>	/
<b>Relative density</b>	0.924
<b>Solubility(ies)</b>	Insoluble in water, ethylene glycol, soluble in most organic solvents.
<b>Partition coefficient:n-octanol/water</b>	/
<b>Auto-ignition temperature</b>	/
<b>Decomposition temperature</b>	/
<b>Viscosity</b>	/

## Section 10 STABILITY AND REACTIVITY

**Reactivity:**/**Chemical stability:**Unstable.

**Possibility of hazardous reactions:** The vapor and air can form an explosive mixture, which can cause combustion and explosion in case of open flames and high heat energy. Contact with reducing agents, accelerators, organic matter, combustibles, etc. will cause a violent reaction, there is a risk of combustion and explosion.

**Conditions to avoid:** Vibration, friction, impact, heat.

**Incompatible materials:** Acids, flammable or combustible materials, reducing agents.

**Hazardous decomposition products:** Carbon monoxide, carbon dioxide.

## Section 11 TOXICOLOGICAL INFORMATION

**Information on the likely routes of exposure:**Inhaled,swallowed,skin,eyes.

**Symptoms related to the physical,chemical and toxicological characteristics:**/

**Acute health effects:** Inhalation can cause coughing, throat irritation, dizziness, etc. Skin contact can cause skin redness and irritation. Eye contact can cause redness and irritation. Ingestion can cause nausea, abdominal pain, and diarrhea.

**Chronic health effects:**/

**Numerical measures of toxicity(such as acute toxicity estimates):**

Isododecane

LD 50(oral, rat): > 5000mg/kg

LD 50 (Percutaneous, rat) :> 2000mg/kg

## Section 12 ECOLOGICAL INFORMATION

**Toxicity:**

Isododecane

Endpoint	Test Duration(hr)	Species	Value
NOEC	504	Crustacea	0.025mg/L
NOEC	504	Crustacea	0.025mg/L
EC50	72	Algae or other aquatic plants	0.53mg/L
NOEC	504	Crustacea	0.097mg/L

**Persistence and degradability:**High

**Bioaccumulative potential:**High

**Mobility in soil:**Low

**Other adverse effects:**/

## Section 13 DISPOSAL CONSIDERATIONS

**Disposal methods:** Waste chemicals: It is recommended to use incineration method or safe landfill method for disposal. Damaged containers are forbidden to be reused, and must be buried in the prescribed place. Contaminated packaging: return the container to the manufacturer or dispose in accordance with national and local regulations

## Section 14 TRANSPORT INFORMATION

**UN number:**3113

**UN proper shipping name:**ORGANIC PEROXIDE TYPE C,LIQUID,TEMPERATURE CONTROLLED.

**Transport hazard class(es):**5.2

**Packing group,if applicable:**/

**Environmental hazards:** Serious marine pollutants

**Special precautions for user:** The railway transportation must be reported to the railway bureau for trial operation. The trial operation period is two years. After the trial operation, write a trial operation report and report to the Ministry of Railways to officially announce the transportation conditions. When transporting by rail, it should be strictly assembled in accordance with the dangerous goods matching table in the "Dangerous Goods Transportation Rules" of the Ministry of Railways. It is shipped separately during transportation, and the container must not leak, collapse, fall or damage during transportation. Transportation vehicles should be equipped with the corresponding variety and quantity of fire fighting equipment during transportation. Mixed transportation with acids, alkalis, flammable or combustible materials, reducing agents, spontaneously combustible materials, flammable materials when wet, etc. is strictly prohibited. Speed should be controlled to avoid bumps and shocks. It should be transported in the morning and evening in summer to prevent sun exposure. Road transportation should follow the prescribed route, do not stop in residential areas and densely populated areas. Transport vehicles should be thoroughly cleaned and washed before and after loading and unloading. It is strictly prohibited to mix impurities such as organic matter and flammable substances.

## Section 15 REGULATORY INFORMATION

**Regulations:**This safety data sheet is in compliance with the following national standards:GB/T16483-2008,GB 13690-2009,GB 18218-2009,GB 15258-2009,GB 6944-2012,GB 190-2009,GB/T 191-2008,GB 12268-2012,GA57-1993,GB/T 15098-2008,GBZ 2.1-2007,GBZ 2,2-2007 as well as the following regulations:Railway Dangerous Goods Transport Administrative Regulation,Dangerous Chemicals Safety Administrative Regulation.

## Section 16 OTHER INFORMATION

<b>References</b>	UN Recommendations on the Transport of Dangerous Goods Model Regulations UN Globally Harmonized System of Classification and Labelling of Chemicals
<b>Form Date</b>	3-Jul,2020

Note 1:When products contain two or more hazardous substances,Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2:Manufacturer/supplier should ensure the correctness of the information contained in the safety data sheets,and updated in a timely manner.

Note 3:As a result of product features without the existence of certain information or no data available (such as boiling does exist for the solid)in the table with"/"logo.