鈞泰化工股份有限公司
ACE CHEMICAL CORP.
Aceox®
4F.-2,No. 146, Wunsing Rd., Gueishan Township , Taoyuan County 333, Taiwan R.O.C.
TEL : 886-3-327-1656 FAX : 886-3-327-0223

MATERIAL SAFETY DATASHEET

Pro / **ACEOX TMCH**

01. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product label name：ACEOX TMCH
Recommended uses：Free radical polymerization initiator、Unsaturated polyester curing agent、Intermediate of organic synthesis
Supplier：ACE CHEMICAL CORP.
Add：4F., No. 406, Sec. 1, Wenhua 3Rd , Linkou Dist., New Taipei City, Taiwan
Tel：886-2-2608-8931 Fax：886-2-2608-3012
＊Emergency Handling mobile telephone / Mobile：886-975-335799

02. HAZARDS IDENTIFICATION

Hazard classification of the substance：Organic peroxide C, Acute toxicity 5, Skin corrosion/irritation 2, Serious eye damage/eye irritation 2B, Acute hazards to the aquatic environment 1

Content：

Symbol：



Fire、



Exclamation mark



Environment

Signal Word：Warning

Hazard Statement：Heating may cause a fire
May be harmful if swallowed (oral)
May be harmful in contact with skin (dermal)
May be harmful if inhaled (gas, vapour, dust, mist)
Causes skin irritation
Causes eye irritation
Very toxic to aquatic life

Precautionary statements：
Store in original containers. Keep within prescribed temperature range.
Do not contamination. Keep away from sourec of heat.
Wearing chemical safety gloves while handling. Avoid skin and eye contact.
In case of contact, Immediately flush with water for 15 minutes.
If ingested, DO NOT induce vomiting. Seek emergency medical care.

Other Hazard：-

03. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical description：	
1,1-DI-(TERT-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE：90%	**CAS：6731-36-8**
Chemical formula： $C_{17}H_{34}O_4$	
Isododecane：10%	**CAS：31807-55-3**

04. FIRST AID MEASURES

General ： **Call emergency services or phone number immediately and seek medical attention.**
Inhalation： **Move to fresh air, rest, and then loosen clothing.** **Keep giving oxygen or artificial respiration to if not breathing.** **Hospitalize immediately.**
Skin： **Remove all contaminated clothing and shoes, and then wash immediately with plenty of water and Soap. In case of large-area burns and scalds, hospitalize immediately.**
Eye： **Continue washing eyes immediately with plenty of water.** **Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek ophthalmologist Advice if irritation develops.**
Ingestion： **First, do not induce vomiting, immediately rinse mouth and lips with plenty of water and then Hospitalize. When vomiting happened, let sufferer lie on left side to avoid aspiration.**
Protection of first-aiders： **Wear suitable respiratory equipment if insufficient ventilation.** **Wear protective suit to avoid contaminated again.**

05. FIRE-FIGHTING MEASURES

Extinguishing media： **Carbon dioxide, dry chemical powder, dry sand, water, foam. Don’t use HALONES.**
Specific exposure hazards： **If involved in a fire or contact with combustible material, it will support combustion to fire or explosion.** **Decomposition under effect of heating causes flammable and toxic products, don’t breathe fumes. Combustion products : carbon dioxide, methane, acetophenone, 2-phenylisopropanol.**
Specific methods： **Use powder or carbon dioxide to extinguish a small fire and water to avoid re-ignition.** **Put out fire from at least 10-15 m by water spray.** **In case of fire nearby, quickly remove exposed containers.**
Other information： **Must wear protective gloves, a self-contained breathing apparatus and protective suit.**

06 .ACCIDENTAL RELEASE MEASURES

Personal protection： **Immediately evacuate nearby people to safe area and firemen must wear individual protection equipments in regulation. Wear respiratory equipment as insufficient ventilation. Strictly keep away from ignition sources and hot surfaces – especially prohibit smoking. Don’t contact with skin, eyes and inhalation of vapors.**
Environmental precautions： **Avoid the product entering into drains.** **Avoid transpiring into the environment.**
Methods for cleaning up：

Sweep up with dustpan and brush off inert material, flushing the remainder with water. Avoid dust generation. Keep contents moist. The waste should not be confined.
Other information： **Prevent re-ignition.** **Forbid adding or blending other waste substrate into product residue.**

07. HANDLING AND STORAGE

Handling： **Provide showers, eye-baths and self-contained breathing equipments nearby.** **Storage and handling precautions is to ensure appropriate exhaust and ventilation. Do not eat, drink & smoke when using and keep away from heat and ignition sources. Wear suitable respiratory equipment when sampling and insufficient ventilation..** **Keep away from sources of ignition, don't smoke.**
Storage： **Keep away from heat and sources of ignition & the best storage temperatures is below 25°C.** **Avoid temperatures below 10 °C. If product freezes or separates, contact ACE. Keep Sealing up tightly and storing in a dry place & a well-ventilated environment.** **Use only very clean containers and equipment free from traces of impurities and never return unused product to original container.** **Do not reuse empty packaging to store other products. Store in well-insulated area (peroxide area) away from other substances.** **Limit storage time to 12 months after manufacturing date. Provide electrical earthing equipment in explosive atmospheres.**
Other information： **Prohibit the product to contact with heavy metals & heavy metals compounds, strong oxidizing agents, strong acids and strong bases, rust, reducing agents, Sulphur compounds, ordinary metals (ordinary steel, copper) and natural or synthetic rubber.** **Package in Polyethylene(PE), Polytetrafluoroethylene (PTFE) and Stainless steel.**

08. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure controls： **Ensure sufficient ventilation place and/or exhaust in working spaces.**
PERSONAL PROTECTION：
Respiratory： **Wear suitable respiratory equipment.** **Wear a self-contained breathing apparatus when hazardous gases/vapours/fumes occur. In case of dust formation use dust mask.**
Hand： **Wear protective gloves of neoprene or synthetic rubber.**
Eye： **Wear safety glasses and face-mask (during discharge)**
Skin and body protection： **Wear protective clothing.**
Other information： **Do not eat or drink, especially not smoke when using.**

Remove and wash contaminated clothing before re-use.

09. PHYSICAL AND CHEMICAL PROPERTIES

Appearance ：Liquid	**Color：colourless**
Boiling point/range：Do not distill (Decomposes)	**MELTING POINT/RANGE：not determined**
Flammability：not determined	**Autoignition temperature：not determined**
SADT：60°C	**PH： not applicable**
Flash point：80 °c	**Vapour pressure： not determined**
Density / (20 °c) ：0.92 g/cm³	**Water：immiscible**
Solvents：Soluble in most organic solvents.	**A[O] ：9.52%**
Refraction index：1,44 at 20 °C	

10. STABILITY AND REACTIVITY

Conditions to avoid：
Keep storage at temperatures below 30 °c.
Keep away from heat and sources of ignition. (avoid risk of exothermic decomposition).
Heavy metals & heavy metals compounds, strong oxidizing agents, strong acids and strong bases, Rust, reducing agents, sulphur compounds, ordinary metals (ordinary steel, copper) and natural or Synthetic rubber.

Hazardous decomposition products：
Thermal decomposition causes flammable and toxic products, very reactive free radicals.
Vapors into the air may cause explosive.

Further information：
T½ life (0,2 mol/l / benzene, 96 - 115 - 153 °c) = 10 h - 1 h - 1 min.
SADT/ (self accelerating decomposition temperature) is 60 °c, it means a dangerous index when The temperature of circumstance in the packaging and transportation is at and above sadt, can Cause explosion or fire by itself since thermal decomposition.

11. TOXICOLOGICAL INFORMATION

Acute toxicity：
Acute toxicity：1,1-Di(tert-butylperoxy)-3,3,5-trimethylcyclohexane
Oral LD50 rats：> 2,000 mg/kg
Dermal LD50 rats：> 2,000 mg/kg
Inhalation LC50 Rat：> 800 mg/l; 4 hours max. attainable concentration

Irritation：
Skin Mildly irritating
Eye Mildly irritating

12. ECOLOGICAL INFORMATION

Ecotoxicity

fish：Acute toxicity, 96h-LC50 = 0.8mg/l.

Acute and prolonged toxicity for aquatic invertebrates：EC50
Species: Daphnia, Exposure time: 48 h, Dose：0,133 mg/l
Test substance：1,1-di-(tert-butylperoxy)-3,3,5-trimethylcyclohexane (90% in isododecane)

13. DISPOSAL CONSIDERATIONS

Product：
Do not discharge waste into drain.
Eliminate the product by incineration after dilution in a suitable solvent, in accordance with local and national regulations.

Other information：
For further advice, please contact ace chemical corporation

14.TRANSPORT INFORMATION

Land transport
ADR / GGVS/RID / GGVE:
Class：5.2
Packaging group：II
Classification Code：P1
Hazard identification No：539
UN-Number：3103
Description of the goods：organic peroxide type c, liquid (1,1-Di(tert.butylperoxy)3,3,5-trimethylcyclohexane)

Sea transport (IMDG-code/ IMO) IMDG：
Class：5.2
Classification Code：
Packaging group：II
UN-Number：3103
EmS：F-J S-R
Marine pollutant：yes
Proper technical name：organic peroxide type c, liquid (1,1-Di(tert.butylperoxy)3,3,5-trimethylcyclohexane)

Air transport (ICAO-TI/ IATA-DGR)
ICAO/IATA：Not permitted for transport

15. REGULATORY INFORMATION

Symbol(s) / E Explosive
O Oxidizing
N Dangerous for the environment

S-phrase(s)/
S 3/7/ Keep container tightly closed in a cool place.
S14/ Keep away from strong acids, bases, heavy metal salts and other reducing substances.
S36/37/39/ Wear suitable protective clothing, gloves and eye/face protection.
S61/ Avoid release to the environment. Refer to special instructions/ Safety data sheets.

16. OTHER INFORMATION

Reference data	**ACE Chemical Corp.**
Tabulation company	**Company：ACE Chemical Corp.**
	Add: **4F., No. 406, Sec. 1, Wenhua 3Rd , Linkou Dist., New Taipei City, Taiwan** **Tel: 886-2-2608-8931**
Tabulator	**ACE Technical department.**
Tabulation date	**2025.1.08**

The information contained herein is based on our knowledge of the product, at the date of publishing and it is given in good faith. Please note the possible risks involved if this product is used for applications other than those for which it is intented.It is also the responsibility of the user to communicate ALL information related to the protection of Health, Safety & the Environment contained within this Material Safety Data Sheet to those persons involved in the handling of this product.