

MATERIAL SAFETY DATA SHEET (MSDS) of TCA-KTTO

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY		
1.1	Production	TCA-KTTO titanate
1.2	Generic Description:	Isopropyl trioleyl titanate
1.3	Physical form:	Liquid
1.4	Color:	Viscous liquid with claret color
1.5	Odor:	Alcoholic
1.6	NFPA Profile:	<div>Health 3</div> <div>Flammability 1</div> <div>Instability/Reactivity 0</div>
1.7	IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY	
	Manufacturer:	Nanjing Capatue Chemical Co., Ltd
	Address:	No. 20 JiangJun Avenue, Jiangning Development Zone, Nanjing, Jiangsu Province, P. R. China P.C: 211100
	Telephone:	(0086-25)-86371193 Fax: (0086-25) 86371191
	24Hour Emergency Telephone:	(0086-25)-86371192
	Connect with:	Anhuanbu

2. HAZARDS IDENTIFICATION
No particular danger

3. COMPOSITION/INFORMATION ON INGREDIENTS		
<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>
136144-62-2	>95%	Isopropyl trioleyl titanate
The above components are hazardous as defined in 29 CFR 1910.1200.		

4. FIRST AID MEASURES	
Effects and Symptoms:	
Effects of Overexposure:	May cause mechanical irritation to eyes.
Medical Conditions	Persons with respiratory conditions may be at increased risk.
Aggravated by Exposure:	
Primary Route(s) of Entry:	Inhalation or skin and eye contact.
Emergency First Aid:	
Eye Contact:	Flush eyes with water for at least 15 min. See physician if irritation persists.
Inhalation:	Remove to fresh air. If breathing is difficult give oxygen. See physician.

MATERIAL SAFETY DATA SHEET (MSDS) of TCA-KTTO

	Ingestion:	None needed for small amounts. For large amounts, if conscious, give water to drink and induce vomiting. Call physician
4.5	Skin Contact:	Flush skin with soap and water for at least 15 min.

5. FIRE FIGHTING MEASURES

5.1	Flash Point:	100 °C
5.2	Auto ignition Temperature:	Non-flammable
5.3	Flammability Limits in Air:	Not determined.
5.4	Extinguishing Media:	Water, Dry Chemical, Foam, CO2
5.5	Special Fire Fighting Procedures:	Self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1	Personal Precautions::	Avoid skin and eye contact
6.2	Environmental Precautions:	Prevent material from contaminating soil or entering sewerage and drainage systems.
6.3	Spill response:	Use appropriate NIOHS/MSHA approved respirator. Wear chemical gloves, goggles, and lab coat. Carefully contain spilled material. Deposit spilled material in appropriate waste container. Wash spill area with soap and water.
	Note:	See section 8 for Personal Protective Equipment for Spills. Call Capatue Chemical, if additional information is required.

7. HANDLING AND STORAGE

Handling:

Use with adequate ventilation. Avoid contact with eyes. Wash thoroughly after handling and before mealtimes. Follow all MSDS and label precautions even after container is emptied since it may contain residual material.

Storage:

Store containers closed in ambient location.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Levels:	OSHA	ACGIH	
	TWA PEL	TWA TLV	

Personal Protective

MATERIAL SAFETY DATA SHEET (MSDS) of TCA-KTTO

Eyes:	Safety glasses with side shields or goggles
Skin:	Rubber gloves, wash at meals and end of shifts
Respiratory Protection:	Use NIOSH/MSHA approved air purifying respirator as needed to control exposure.
Ventilation:	Provide adequate general mechanical exhaust.
Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry (http://www.sehsc.com) or contact the Capatue customer service department.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Liquid
Color:	claret color
Odor:	Alcoholic
Specific Gravity @ 20°C:	0.934
Freezing/Melting Point:	Not determined.
Evaporation Rate (Buac=1)	0
Vapor Pressure @ 25°C:	Not determined.
Vapor Density:	Not determined.
Solubility in Water:	Insoluble
Percent Volatile by Vol. (%):	0

Note: The above information is not intended for use in preparing product specifications. Contact Capatue Chemical before writing specifications.

10. STABILITY AND REACTIVITY

10.1 Chemical Stability:	Stable
10.2 Hazardous	Hazardous polymerization will not occur.
10.3 Polymerization:	None
10.4 Conditions to Avoid:	Keep away from extreme heat, sparks, flame, and other ignition sources Incompatibility: Acids and strong oxidizing agents
Hazardous Decomposition Products	None

11. TOXICOLOGICAL INFORMATION

Skin Irritation (rabbit): Minimal Irritant

MATERIAL SAFETY DATA SHEET (MSDS) of TCA-KTTO

Primary Eye Irritation: Mild irritant (rabbit) Average Draize score = 0.40

Sensitization: Non-sensitizer (guinea pig)

Acute Oral Toxicity (rat): Non-toxic, LD50 > 2 g/kg (rat)

12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Complete information is not yet available.

Environmental Effects

Complete information is not yet available.

Fate and Effects in Waste Water Treatment Plants

Complete information is not yet available.

13. DISPOSAL CONSIDERATIONS

Method of Disposal:

Dispose of in accordance with all applicable federal, state, and local regulations. Material may be sent to an approved landfill or licensed treatment, storage, and disposal facility.

14. TRANSPORT INFORMATION

Classification: Non-hazardous

15. REGULATORY INFORMATION

Label Name: **TCA-KTTO**

16. OTHER INFORMATION

Prepared by: Nanjing Capatue Chemical Co., Ltd

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

[Http://www.capatue.com](http://www.capatue.com) E-mail: sales@capatue.com

Tel: 0086-25-86371192 86371193 86371194 Fax: 0086-25-86371191-0

Add: No. 20 JiangJun Avenue, Jiangning Development Zone, Nanjing, Jiangsu Province, P. R. China 211100