

Safety Data Sheet

1. IDENTIFICATION

Product Name: Acetyl Tributyl Citrate

Other Names: ATBC

Recommended Use: It can be applied to all PVC products, such as foodstuff wrapper, medical ware, films, artificial leather and so on.

Supplier: Global Chemie ASCC Limited

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2. HAZARDS IDENTIFICATION

Health Hazard Classification

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail, NON-DANGEROUS GOODS.

Hazardous Categories

No data available

Hazardous Statement

No data available

GHS Pictograms

No data available

Hazard Statements

No data available

Precautionary Statements

No data available

Response

No hazards which require special first aid measures.

Storage

No data available

Disposal

Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied.

Signal Word No signal word

3. COMPOSITION: Information on Ingredients

Chemical Ingredient	CAS No.	UN No.	Proportion (%v/v)
Acetyl Tributyl Citrate	77-90-7	-	>99.0

Molecular Formula: $C_{20}H_{34}O_8$

Molecular Weight: 402.48 g/mol

4. FIRST AID MEASURES

For advice, contact Ramathibodi Poison Center (Phone: 1367) or a doctor.

Ingestion

Do not induce vomiting; Do not eat milk and castor oil, transport to nearest medical facility for additional treatment.

Eye Contact

Immediately flush eyes with large amounts of water for at least 10 minutes while holding eyelids open. Transport to the nearest medical facility for additional treatment.

Skin Contact

Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes and follow by washing with soap and water if available.

Inhalation

Remove to fresh air. If the victim has difficulty breathing or tightness of the chest, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

Most important symptoms and effects both acute and delayed

No data available.

Medical Attention

Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing media: Use Water spray, alcohol -resistant foam ,dry chemical powder, carbon dioxide (CO₂), foam.

Special Hazard arising from the substance or mixture

Combustible exposed to flame and overheated. Give off irritating fumes (or gases) in a fire : Carvon oxides.In case of overheat, increased pressure within containers has the risk of cracking and explosion.

Advice for fire extinguishing

Evacuate personnel to safe areas. Wear self-contained breathing apparatus suitable protective equipment for fire fighting. Stand up wind.

Further information

Move container away from fire if safe. use Water fog to cool down fire exposed container.

6. ACCIDENTAL RELEASE MEASURES**Emergency Procedures**

Prevent fluid from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours from building up in confined areas. Ensure that drain valves are always closed. Clean up and report spills immediately.

Methods and materials for containment**Protective Measures**

- Observe all relevant local and international regulations.
- Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see chapter 8 this Material Safety Data Sheet. Shut off leaks, if possible, without personal risks. Remove all possible sources of ignition in the surrounding area. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
- Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Clean-Up Methods

- ♦ Small spillage (< 200 LT) : Transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
- ♦ large spillage (> 200 LT) : Transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

7. HANDLING AND STORAGE

Precautions for safe handling:
Take the usual precautions with chemical. Use in well- ventilated aera. Avoid contact with skin and eyes Avoid breathing concentrated vapor or mist. Wash thoroughly after handling. Keep container tightly closed when not in use.

Conditions for safe storage, including any incompatibilities:
Store in cool place. Keep container tightly closed in dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from heat and flame. Avoid direct sunlight Moisture Sensitive, par attention to moisture. Do not store together oxides. Do not store together with strong oxides. Provide firefighting equipment and tools for accidental release.

8.EXPOSURE CONTROLS: PERSONAL PROTECTION

Exposure Limits: Not established.

Engineering Controls:
General Industrial hygiene practice. Suggest Proving enough ventilation. Provide wash shower and eye wash fountain.

Personal Protective Equipment

Respiratory protection: If ventilation is poor, wear appropriate respiratory protection.

Eye and surface protection: Wear safety glasses (or goggles) with protective edges.

Skin and body protection: suitable protective clothing. Hand protection: Wear protective gloves. Skin contact should be minimized.

Intake: Use good personal hygiene. Do not consume or store food in the work area. Wash your hands before smoking or eating.

Precautions: Make sure eyewashes and safety showers are located near the workplace. Use personal protective equipment as required.

9.PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of Measurement	Typical Value
Appearance	-	Colourless transparent oily, liquid
Odour	-	Odorless
pH	-	No data available
Boiling point	°C	331
Melting point	°C	- 80°C
Flash point	°C	217
Flammability	-	Not flammable
Autoignition Temperature	°C	No data available
Decomposition Temperature	°C	No data available

Property	Unit of Measurement	Typical Value
Lower/Upper Flammability Limits	%V	No data available
Density @ 25°C	g/cm ³	No data available
Specific Gravity @ 25°C	-	No data available
Viscosity @ 25°C	cSt	No data available
Vapor pressure	kPa	1.79kPa @ 20°C
Vapor density	kPa (Air = 1)	No data available
Evaporation Rate	(n-Butyl acetate = 1)	No data available
Water Solubility	-	Slight soluble in water
Solubility in other solvents Partition coefficient	(n-octanol/water)	No data available
Coefficient of Thermal Expansion	per Deg °C	No data available
Particle Characteristic	-	No data available

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult the Product Data Sheet.

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under normal conditions.

Conditions to avoid

Heat, flame, spark and other ignition sources.

Hazardous decomposition products

Does not occur during normal handling. Not present under normal use conditions.

Hazardous reactions

No data available.

Hazardous Polymerisation

No data available

Materials to Avoid

Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Acute toxic

Acute oral toxicity:

half lethal dose (LD50), oral (rats): 31500mg/kg

Half lethal dose (LD50), oral (mouse): >4000 mg/kg

Skin contact:

Skin-Rabbit: Result-No skin irritation

Eye contact:

Eyes-Rabbit: Result-Mild eye irritation

Ingestion: Not reported.

Separatory or Skin sensitization: No sensitive effect.

Germ Cell Mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: None of the components of this product is listed as a carcinogen by IARC ,NTP,US OSHA or the European Directive (67/548/EEC)

Reproductive Toxicity: Based on available data the classification criteria are not met.

Specific target Organ Toxicity – Single Exposure (Globally Harmonized System): No known human health effects upon single.

Specific target Organ Toxicity – Repeated Exposure (Globally Harmonized System) : No known human health effects upon Repeated Exposure .

Aspiration Hazard: Based on available data the classification criteria are not met.

Potential Health Effects:

Inhalation: No obvious symptoms under normal usage. May cause respiratory irritation.

Skin Contact: No skin irritation effects under normal conditions.

Eye Contact: May cause eye irritation if in -eye.

Ingestion: Not an expected route of exposure. May be harmful if swallowed.

12.ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish: LC50 (Lepomis macrochirus): 38-60 mg/L Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates Immobilization EC50-Daphnia magna (Water flea)->1mg/L-24h

Toxicity to algae Growth inhibition EC50-Desmodesmussubspicatus -11.5 mg/L-72 h

Toxicity to watery and other aquatic invertebrates: EC50 (Daphnia magna): 55.8 mg/L Exposure time: 48 h

Persistence and degradability:

biodegradability: Exposure time: 28 days

Result: 16 % not readily biodegradable

Bioaccumulation potential:

Not data available.

Results of PBT and vPvB assessment

This substance /Mixture contains no components considered to be either persistent, bioaccumulate and toxic or very persistent and very bioaccumulation at levels of 0.1% or Hight.

13.DISPOSAL CONSIDERATIONS

Nature of waste: hazardous waste

Waste disposal methods: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Disposal methods for waste packaging: Empty containers should be recycled, restored, or disposed of locally by waste. Disposal shall be in accordance with applicable regional, national and local laws and regulations.

14.TRANSPORT INFORMATION

Road and Rail Transport		Marine Transport		Air Transport	
UN. Number	Not Regulated	UN. Number	Not Regulated	UN. Number	Not Regulated
Class/Item	Not Regulated	Class/Item	Not Regulated	Class/Item	Not Regulated
Hazard Symbol	Not Regulated	Hazard Symbol	Not Regulated	Hazard Symbol	Not Regulated
Proper Shipping Name	Not Regulated	Proper Shipping Name	Not Regulated	Proper Shipping Name	Not Regulated
Packing Group	Not Regulated	Packing Group	Not Regulated	Packing Group	Not Regulated
		Marine Pollutant	Not Regulated		

15. REGULATORY INFORMATION

Product ingredients are listed in the following directory:

AICS: Exists in or complies with an existing list

PICCS: Philippines Inventory of Chemical and chemical Substances;

TSCA: Exists in or complies with an existing list

AICS - Australian Catalogue of Chemical Substances;

DSL - Canadian Domestic List of Chemical Substances;

IECSC – Inventory of Existing Chemical Substances in China;

KECI - List of Existing Chemical Substances in Korea;

Regulatory Information:

Regulations on the Safety Management of Hazardous Chemicals (implemented on January 26, 2002, amended for the second time by State Council Order No. 645 of December 7, 2013)

Regulations on the Safe Use of Chemicals in the Workplace (Ministry of Labour Fa [1996] No. 423) Classification and labeling of commonly used hazardous chemicals (effective from May 1, 2010) Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste (effective as of May 1, 2010) Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste (Revised on April 29, 2020)

General Technical Conditions for Transport Packaging of Dangerous Goods (GB 12463-2009) Regulations on the Preparation of Chemical Safety Labels (GB 15258-2009) Chemical Safety Data Sheet - Content and Item Sequence (GB/T16483-2008) MSDS Writing Guide (GBT17519-2013) General Principles of Chemical Classification and Hazard Disclosure (GB13690- 2009).

Precautions for GHS Safety Labels of Chemicals (GB15258-2009)

16. OTHER INFORMATION

National Fire Protection Association (USA) : No data available

SDS Distribution : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty of guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.

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