

ALFAAA19226

## p-Cymene

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>产品说明:</b> <b>Product Description:</b>	<b>对异丙基苯</b> <b>p-Cymene</b>
<b>Cat No. :</b>	<b>A19226</b>
<b>Synonyms</b>	Dolcymene; p-Isopropyltoluene
<b>CAS No</b>	99-87-6
<b>Molecular Formula</b>	C10 H14
<b>Supplier</b>	Avocado Research Chemicals Ltd. (Part of Thermo Fisher Scientific) Shore Road, Heysham Lancashire, LA3 2XY, United Kingdom Office Tel: +44 (0) 1524 850506 Office Fax: +44 (0) 1524 850608
<b>Emergency Telephone Number</b>	For information <b>US</b> call: 001-800-227-6701 / <b>Europe</b> call: +32 14 57 52 11 Emergency Number <b>US</b> :001-201-796-7100 / <b>Europe</b> : +32 14 57 52 99 <b>CHEMTREC</b> Tel. No. <b>US</b> :001-800-424-9300 / <b>Europe</b> :001-703-527-3887
<b>E-mail address</b>	begel.sdsdesk@thermofisher.com
<b>Recommended Use</b>	Laboratory chemicals.
<b>Uses advised against</b>	No Information available

### SECTION 2. HAZARD IDENTIFICATION

<b>Physical State</b> Liquid	<b>Appearance</b> Clear	<b>Odor</b> aromatic
<b>Emergency Overview</b>		
Flammable liquid and vapor. May be fatal if swallowed and enters airways. May cause drowsiness and dizziness. Toxic to aquatic life with long lasting effects. May be harmful if swallowed. Toxic if inhaled. Suspected of damaging fertility or the unborn child.		

#### Classification of the substance or mixture

Flammable liquids.	Category 3
Aspiration Toxicity	Category 1
Acute Oral Toxicity	Category 5
Acute Inhalation Toxicity - Vapors	Category 3
Reproductive Toxicity	Category 2
Specific target organ toxicity - (single exposure)	Category 3
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

#### Label Elements

## p-Cymene



## Signal Word

## Danger

## Hazard Statements

H226 - Flammable liquid and vapor  
 H304 - May be fatal if swallowed and enters airways  
 H336 - May cause drowsiness or dizziness  
 H411 - Toxic to aquatic life with long lasting effects  
 H303 - May be harmful if swallowed  
 H331 - Toxic if inhaled  
 H361 - Suspected of damaging fertility or the unborn child

## 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  
 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  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P270 - Do not eat, drink or smoke when using this product  
 P271 - Use only outdoors or in a well-ventilated area  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection

## Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 P311 - Call a POISON CENTER or doctor  
 P331 - Do NOT induce vomiting  
 P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

## Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P405 - Store locked up

## Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

## Physical and Chemical Hazards

Vapors may cause flash fire or explosion. Flammable liquid.

## Health Hazards

Aspiration hazard if swallowed - can enter lungs and cause damage. May cause drowsiness or dizziness. May be harmful if swallowed. Toxic if inhaled. Suspected of damaging fertility or the unborn child.

## Environmental hazards

Toxic to aquatic life with long lasting effects. . Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil. The product is insoluble and floats on water. The product evaporates slowly.

## Other Hazards

This product does not contain any known or suspected endocrine disruptors.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
p-Cymene	99-87-6	<= 100

**SECTION 4. FIRST AID MEASURES****General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Risk of serious damage to the lungs (by aspiration).

**Ingestion**

Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward.

**Most important symptoms and effects**

None reasonably foreseeable. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

**Self-Protection of the First Aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

**Notes to Physician**

Treat symptomatically. Symptoms may be delayed.

**SECTION 5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

**Extinguishing media which must not be used for safety reasons**

Do not use a solid water stream as it may scatter and spread fire.

**Specific Hazards Arising from the Chemical**

Flammable. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Vapors may form explosive mixtures with air.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

**Environmental Precautions**

Do not flush into surface water or sanitary sewer system.

## p-Cymene

**Methods for Containment and Clean Up**

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Refer to protective measures listed in Sections 8 and 13.

**SECTION 7. HANDLING AND STORAGE****Handling**

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

**Storage**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Flammables area. Keep container tightly closed in a dry and well-ventilated place.

**Specific Use(s)**

Use in laboratories

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control Parameters****Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS70 General methods for sampling airborne gases and vapours MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

**Exposure Controls****Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

**Personal protective equipment**

**Eye Protection** Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Viton (R)	See manufacturers recommendations	-	EN 374	(minimum requirement)

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection** Long sleeved clothing

## p-Cymene

<b>Respiratory Protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
<b>Large scale/emergency use</b>	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced <b>Recommended Filter type:</b> Organic gases and vapours filter Type A Brown conforming to EN14387
<b>Small scale/Laboratory use</b>	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. <b>Recommended half mask:-</b> Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141 When RPE is used a face piece Fit Test should be conducted
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Environmental exposure controls</b>	Prevent product from entering drains. Do not allow material to contaminate ground water system.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear	
<b>Physical State</b>	Liquid	
<b>Odor</b>	aromatic	
<b>Odor Threshold</b>	No data available	
<b>pH</b>	No information available	
<b>Melting Point/Range</b>	-68 °C / -90.4 °F	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	176 - 178 °C / 348.8 - 352.4 °F	@ 760 mmHg
<b>Flash Point</b>	47 °C / 116.6 °F	<b>Method -</b> No information available
<b>Evaporation Rate</b>	No data available	
<b>Flammability (solid,gas)</b>	Not applicable	Liquid
<b>Explosion Limits</b>	<b>Lower</b> 0.7 Vol% <b>Upper</b> 5.6 Vol%	
<b>Vapor Pressure</b>	1.5 mmHg @ 20 °C	
<b>Vapor Density</b>	4.62 (Air = 1.0)	(Air = 1.0)
<b>Specific Gravity / Density</b>	0.854	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Water Solubility</b>	Insoluble	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
p-Cymene	4.8	
<b>Autoignition Temperature</b>	435 °C / 815 °F	
<b>Decomposition Temperature</b>	No data available	
<b>Viscosity</b>	No data available	
<b>Explosive Properties</b>		explosive air/vapour mixtures possible
<b>Oxidizing Properties</b>	No information available	
<b>Molecular Formula</b>	C10 H14	
<b>Molecular Weight</b>	134.22	

## SECTION 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
------------------	----------------------------------------------

<b>Hazardous Reactions</b>	None under normal processing.
<b>Hazardous Polymerization</b>	No information available.
<b>Conditions to Avoid</b>	Keep away from open flames, hot surfaces and sources of ignition. Excess heat. Incompatible products.
<b>Materials to avoid</b>	Strong oxidizing agents. Strong acids. Strong bases.
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).

## SECTION 11. TOXICOLOGICAL INFORMATION

### Product Information

#### (a) acute toxicity;

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
p-Cymene	LD50 = 4750 mg/kg ( Rat )	LD50 > 5000 mg/kg ( Rabbit )	LC50 > 9.7 mg/L ( Rat ) 5 h

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

#### (d) respiratory or skin sensitization;

Respiratory  
Skin

Based on available data, the classification criteria are not met  
Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met  
Not mutagenic in AMES Test

(f) carcinogenicity; Based on available data, the classification criteria are not met  
There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Category 2

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

Target Organs

None known.

(j) aspiration hazard; Category 1

**Symptoms / effects, both acute and delayed** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity effects** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

## p-Cymene

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
p-Cymene	LC50: 48 mg/L/96h (sheepshead minnow)	LC50: 6.5 mg/L/48h		

**Persistence and Degradability**  
**Persistence**  
**Degradation in sewage treatment plant**

Readily biodegradable  
 May persist.  
 Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**Bioaccumulative Potential** Product has a high potential to bioconcentrate

Component	log Pow	Bioconcentration factor (BCF)
p-Cymene	4.8	No data available

**Mobility in soil**

Spillage unlikely to penetrate soil The product is insoluble and floats on water The product evaporates slowly Is not likely mobile in the environment due its low water solubility Is not likely mobile in the environment due its low water solubility and propensity to bind to soil particles

**Endocrine Disruptor Information**  
**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

This product does not contain any known or suspected endocrine disruptors  
 This product does not contain any known or suspected substance  
 This product does not contain any known or suspected substance

### SECTION 13. DISPOSAL CONSIDERATIONS

**Waste from Residues/Unused Products**

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

**Other Information**

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not let this chemical enter the environment. Do not empty into drains.

### SECTION 14. TRANSPORT INFORMATION

#### Road and Rail Transport

**UN-No** UN2046  
**Proper Shipping Name** CYMENES  
**Hazard Class** 3  
**Packing Group** III

#### IMDG/IMO

**UN-No** UN2046  
**Proper Shipping Name** CYMENES  
**Hazard Class** 3  
**Packing Group** III

#### IATA

**UN-No** UN2046

## p-Cymene

Proper Shipping Name CYMENES  
 Hazard Class 3  
 Packing Group III

Special Precautions for User No special precautions required

## SECTION 15. REGULATORY INFORMATION

## International Inventories

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	The Inventory of Hazardous Chemicals (2015 Edition)	List of dangerous goods GB 12268 - 2012	TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
p-Cymene	X	-	X	X	202-796-7	X	X	X	X	X	X	KE-21748

## National Regulations

## SECTION 16. OTHER INFORMATION

Prepared By Health, Safety and Environmental Department  
 Revision Date 30-Apr-2024  
 Revision Summary New emergency telephone response service provider.

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**PNEC** - Predicted No Effect Concentration

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative



**p-Cymene**

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

**Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**