ALFAAA13482

trans-Anethole

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

产品说明:	**反-茴香脑**
Product Description:	**trans-Anethole**
Cat No. :	**A13482**
Synonyms	p-Propenylanisole
CAS No	4180-23-8
Molecular Formula	C10 H12 O
Supplier	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
Emergency Telephone Number	For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99 **CHEMTREC** Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887
E-mail address	begel.sdsdesk@thermofisher.com
Recommended Use	Laboratory chemicals.
Uses advised against	No Information available

SECTION 2. HAZARD IDENTIFICATION

Physical State	**Appearance**	**Odor**
Solid Low melting solid	Clear Colorless to yellowish	Strong

Emergency Overview

May be harmful if swallowed. May be harmful in contact with skin. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects. Sensitivity to light.

Classification of the substance or mixture

Acute Oral Toxicity	Category 5
Acute Dermal Toxicity	Category 5
Skin Sensitization	Category 1
Chronic aquatic toxicity	Category 3

Label Elements

Signal Word **Warning**

Hazard Statements
H303 - May be harmful if swallowed
H313 - May be harmful in contact with skin
H317 - May cause an allergic skin reaction
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements
Prevention
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves
P273 - Avoid release to the environment
Response
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 + P364 - Take off contaminated clothing and wash it before reuse
Storage
P403 - Store in a well-ventilated place
Disposal
P501 - Dispose of contents/ container to an approved waste disposal plant

Physical and Chemical Hazards
None identified.
Health Hazards
May be harmful if swallowed. May be harmful in contact with skin. May cause an allergic skin reaction.
Environmental hazards
Harmful 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.

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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Benzene, 1-methoxy-4-(1-propenyl)-, (E)-	4180-23-8	<=100

SECTION 4. FIRST AID MEASURES

General Advice
If symptoms persist, call a physician.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation
Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion
Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Most important symptoms and effects
None reasonably foreseeable. May cause allergic skin reaction. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the

hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Self-Protection of the First Aider
No special precautions required.

Notes to Physician
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

Extinguishing media which must not be used for safety reasons
No information available.

Specific Hazards Arising from the Chemical
Combustible material. Risk of ignition. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Combustible material.

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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions
Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up
Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal. Remove all sources of ignition.

Refer to protective measures listed in Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

Handling
Wear personal protective equipment/face protection. Avoid ingestion and inhalation. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition.

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Protect from direct sunlight.

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. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust MDHS70 General methods for sampling airborne gases and vapours

Exposure Controls

Engineering Measures
None under normal use conditions. Ensure adequate ventilation, especially in confined areas. .

Personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber Neoprene Natural rubber PVC	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 compatability, 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

Respiratory Protection No protective equipment is needed under normal use conditions.

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: Particle filter

Small scale/Laboratory use Maintain adequate ventilation
Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Prevent product from entering drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Colorless to yellowish	
Physical State	Solid Low melting solid	
Odor	Strong	
Odor Threshold	No data available	
pH	No information available 11111	
Melting Point/Range	23 °C / 73.4 °F	
Softening Point	No data available	
Boiling Point/Range	234 - 237 °C / 453.2 - 458.6 °F	@ 760 mmHg
Flash Point	91 °C / 195.8 °F	**Method -** No information available

Evaporation Rate	Not applicable	Solid
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Vapor Pressure	1.33 mbar @ 63 °C	
Vapor Density	Not applicable	Solid
Specific Gravity / Density	0.988	
Bulk Density	Not applicable	Liquid
Water Solubility	practically insoluble	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	**log Pow**	
Benzene, 1-methoxy-4-(1-propenyl)-, (E)-	3.39	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	Not applicable	Solid
Explosive Properties		explosive air/vapour mixtures possible
Oxidizing Properties	No information available	
Molecular Formula	C10 H12 O	
Molecular Weight	148.2	

SECTION 10. STABILITY AND REACTIVITY

Stability Light sensitive.

Hazardous Reactions None under normal processing.

Hazardous Polymerization No information available.

Conditions to Avoid Incompatible products. Excess heat. Exposure to light. Keep away from open flames, hot surfaces and sources of ignition.

Materials to avoid Oxidizing agent.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO_2).

SECTION 11. TOXICOLOGICAL INFORMATION

Product Information

(a) acute toxicity;

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Benzene, 1-methoxy-4-(1-propenyl)-, (E)-	2090 mg/kg (Rat)	>5 g/kg (Rabbit)	LC50 > 5.1 mg/L (Rat) 4 h

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory No data available

Skin Category 1

No information available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs None known.

(j) aspiration hazard; Not applicable
Solid

Other Adverse Effects The toxicological properties have not been fully investigated.

Symptoms / effects,both acute and delayed Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

SECTION 12. ECOLOGICAL INFORMATION

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

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Benzene, 1-methoxy-4-(1-propenyl)-, (E)-	Danio rerio: LC50 = 7 mg/L (96 h) Danio rerio: NOEC = 0.34 mg/L (28d)	Daphnia magna: EC50 = 4.25 mg/L (48 h)		

Persistence and Degradability

Persistence Persistence is unlikely.

Component	Degradability
Benzene, 1-methoxy-4-(1-propenyl)-, (E)- 4180-23-8 (<=100)	91 % (28d)

Degradation in sewage treatment plant Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulative Potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Benzene, 1-methoxy-4-(1-propenyl)-, (E)-	3.39	No data available

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

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors
Persistent Organic Pollutant This product does not contain any known or suspected substance
Ozone Depletion Potential 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.

Other Information Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not flush to sewer. Do not let this chemical enter the environment.

SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport Not Regulated

IMDG/IMO Not regulated

IATA Not regulated

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	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
Benzene, 1-methoxy-4-(1-propenyl)-, (E)-	-	-	X	224-052-0	X	X	X	X	X	X	KE-05-0140

National Regulations

SECTION 16. OTHER INFORMATION

Prepared By Health, Safety and Environmental Department
Creation Date 10-Feb-2011
Revision Date 21-Jul-2026
Revision Summary SDS sections updated.

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

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

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