

## SECTION 1: Identification

### 1.1 GHS Product identifier

**Product name** m-phenoxybenzyl (1R-trans)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate

### 1.2 Other means of identification

**Product number** -

**Other names** 1r-chloro-2t,3t-dimethyl-cyclopropane;trans-4-Hydroxymethyl-cyclohexanol;trans-4-Hydroxycyclohexylcarbinol

### 1.3 Recommended use of the chemical and restrictions on use

**Identified uses** Industrial and scientific research uses.

**Uses advised against** no data available

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1

Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

### 2.2 GHS label elements, including precautionary statements

**Pictogram(s)**



**Signal word** Warning

**Hazard statement(s)** H410 Very toxic to aquatic life with long lasting effects

**Precautionary statement(s)**

**Prevention** P273 Avoid release to the environment.

**Response** P391 Collect spillage.

**Storage** none

**Disposal** P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### 2.3 Other hazards which do not result in classification

no data available

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
m-phenoxybenzyl (1R-trans)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate	m-phenoxybenzyl (1R-trans)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate	26046-85-5	247-431-2	100%

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

**If inhaled**

Fresh air, rest.

**Following skin contact**

Remove contaminated clothes. Rinse and then wash skin with water and soap.

**Following eye contact**

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

**Following ingestion**

Rinse mouth.

### 4.2 Most important symptoms/effects, acute and delayed

no data available

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

Emergency and supportive measures: Treat bronchospasm and anaphylaxis if they occur. Observe patients with a history of large

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## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

Use carbon dioxide, foam, or dry chemical /on fires involving pyrethroids/. Pyrethrum

### 5.2 Specific hazards arising from the chemical

no data available

### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2 Environmental precautions

Do NOT wash away into sewer. Do NOT let this chemical enter the environment. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

### 6.3 Methods and materials for containment and cleaning up

SRP: Wastewater from contaminant suppression, cleaning of protective clothing/equipment, or contaminated sites should be contained and evaluated for subject chemical or decomposition product concentrations. Concentrations shall be lower than applicable environmental discharge or disposal criteria. Alternatively, pretreatment and/or discharge to a POTW is acceptable only after review by the governing authority. Due consideration shall be given to remediation worker exposure (inhalation, dermal and ingestion) as well as fate during treatment, transfer and disposal. If it is not practicable to manage the chemical in this fashion, it must meet Hazardous Material Criteria for disposal.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### 7.2 Conditions for safe storage, including any incompatibilities

Provision to contain effluent from fire extinguishing. Separated from food and feedstuffs. Keep in a well-ventilated room. Ventilate well. Store in closed drum in cool, dry place.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure limit values

no data available

#### Biological limit values

no data available

### 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

#### Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

#### Thermal hazards

no data available

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## SECTION 9: Physical and chemical properties and safety characteristics

<b>Physical state</b>	PALE YELLOW-TO-YELLOW-BROWN LIQUID.
<b>Colour</b>	Colorless liquid
<b>Odour</b>	Faint characteristic odor
<b>Melting point/freezing point</b>	no data available
<b>Boiling point or initial boiling point and boiling range</b>	437Å°C at 760 mmHg
<b>Flammability</b>	Combustible. Liquid formulations containing organic solvents may be flammable.
<b>Lower and upper explosion limit/flammability limit</b>	no data available
<b>Flash point</b>	186.6Å°C
<b>Auto-ignition temperature</b>	no data available
<b>Decomposition temperature</b>	no data available
<b>pH</b>	pH = 5.16 at 20 deg C
<b>Kinematic viscosity</b>	no data available
<b>Solubility</b>	Soluble in xylene and acetone
<b>Partition coefficient n-octanol/water</b>	log Kow = 7.54 (est)
<b>Vapour pressure</b>	0mmHg at 25Å°C
<b>Density and/or relative density</b>	1.12 g/cm3
<b>Relative vapour density</b>	no data available
<b>Particle characteristics</b>	no data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under irradiation, in most organic solvents, and on inorganic mineral diluents.

### 10.3 Possibility of hazardous reactions

Combustible. Liquid formulations containing organic solvents may be flammable.

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

Incompatible with alkaline materials.

### 10.6 Hazardous decomposition products

When heated to decomposition it emits acrid smoke and fumes. (+)-cis,trans-Phenothrin

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## SECTION 11: Toxicological information

### Acute toxicity

- Oral: LD50 Rat oral greater than 500 mg/kg
- Inhalation: LC50 Rat (Sprague Dawley) inhalation >1210 mg/cu m/4 hr Racemic
- Dermal: LD50 Rat percutaneous >2000 mg/kg

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

### STOT-single exposure

no data available

#### STOT-repeated exposure

no data available

#### Aspiration hazard

no data available

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## SECTION 12: Ecological information

### 12.1 Toxicity

- Toxicity to fish: LC50; Species: *Lepomis macrochirus* (Bluegill); Conditions: freshwater, static; Concentration: 18 ug/L for 96 hr (95% confidence interval: 13.9-23.2 ug/L) /94.6% purity
- Toxicity to daphnia and other aquatic invertebrates: EC50; Species: *Daphnia magna* (Water flea, neonate); Conditions: freshwater, static; Concentration: 27.2 ug/L for 5 hr; Effect: mortality /10% purity; Sumithrin, Anvil 10+10 ULV synergized formulation
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

### 12.2 Persistence and degradability

AEROBIC: Although environmental biodegradation data specific to phenothrin were not available(SRC, 2009), the pyrethroid class of insecticides is readily degraded by environmental microorganisms(1,2). Residues of trans-phenothrin fell to <10 ppb (initial concentration not specified) within 45 days in an aerobic soil(2). Pyrethroids are metabolized by both hydrolytic and oxidative processes(2).

### 12.3 Bioaccumulative potential

An estimated BCF of 230 was calculated for phenothrin(SRC), using a log Kow of 6.01(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is high, provide the compound is not metabolized by the organism(SRC).

### 12.4 Mobility in soil

The Koc of phenothrin is estimated as 1.2X10+5(SRC), using a log Kow of 6.01(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that phenothrin is expected to be immobile in soil.

### 12.5 Other adverse effects

no data available

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## SECTION 13: Disposal considerations

### 13.1 Disposal methods

#### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## SECTION 14: Transport information

### 14.1 UN Number

ADR/RID: no data available

IMDG: no data available

IATA: no data available

### 14.2 UN Proper Shipping Name

ADR/RID: no data available

IMDG: no data available

IATA: no data available

### 14.3 Transport hazard class(es)

ADR/RID: no data available

IMDG: no data available

IATA: no data available

### 14.4 Packing group, if applicable

ADR/RID: no data available

IMDG: no data available

IATA: no data available

### 14.5 Environmental hazards

ADR/RID: Yes

IMDG: Yes

IATA: Yes

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to IMO instruments

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
m-phenoxybenzyl (1R-trans)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate	m-phenoxybenzyl (1R-trans)-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanecarboxylate	26046-85-5	247-431-2
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Not Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.
Korea Existing Chemicals List (KECL)			Not Listed.

## SECTION 16: Other information

### Information on revision

Creation Date	July 15, 2019
Revision Date	July 15, 2019

### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>