

Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

FotoCast

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/preparation

Material based on methacrylate resin for DLP-systems for the generative manufacturing of earmoulds

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Dreve Otoplastik GmbH Max-Planck-Straße 31

59423 Unna

Telephone no. +49 2303 8807-0 Fax no. +49 2303 8807-29

Information provided Department Research & Development: Fax: +49 2303 8807-562

by / telephone

E-mail address of sicherheitsdatenblatt@dreve.com

person responsible for this SDS

1.4. Emergency telephone number

Henkel Fire Department / 24h-Emergency-Contact-No.: +49 211 797-3350

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Skin Sens. 1B H317 Aquatic Chronic 4 H413

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008 For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Warning

Hazard statements



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

H317 May cause an allergic skin reaction.

H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P501.1 Dispose of contents/container to industrial incineration plant.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains Tetramethylene dimethacrylate

2.3. Other hazards

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients

Bisphenol A, ethoxylated, dimethacrylate

CAS No. 41637-38-1 EINECS no. 609-946-4

Registration no. 01-2119980659-17

Concentration >= 50 %

Classification (Regulation (EC) No. 1272/2008)

Aquatic Chronic 4 H413

Tetramethylene dimethacrylate

CAS No. 2082-81-7 EINECS no. 218-218-1

Registration no. 01-2119967415-30

Concentration >= 10 < 25 %

Classification (Regulation (EC) No. 1272/2008)

Skin Sens. 1B H317

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

CAS No. 75980-60-8 EINECS no. 278-355-8

Registration no. 01-2119972295-29

Concentration >= 1 < 3 %

Classification (Regulation (EC) No. 1272/2008)

Repr. 2 H361f

Supplemental information

The substance is contained in the Candidate List for inclusion in Annex XIV of

Regulation (EC) No. 1907/2006 (REACH).



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid

After inhalation

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

After skin contact

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

Until now no symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed Hints for the physician / hazards

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Recommended: alcohol resistant foam, CO2, powders, water spray/mist, Extinguishing measures to suit surroundings

Non suitable extinguishing media

Full water iet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

Observe manufacturer's / distributor`s instructions.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away sources of ignition. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Pick up rest with suitable absorbent materials. Do not pick up with the help of saw-dust or other combustible substances. Clean contaminated floors and objects thoroughly, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of aerosols. Avoid impact, friction and electro-static loading; risk of ignition!. Keep container tightly closed.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. No smoking. Take action to prevent static discharges. Avoid impact and friction. Use only explosion-proof equipment. Keep away from combustible material. Wear shoes with conductive soles.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Do not store together with foodstuffs. Do not store with strong oxidizing agents.

Further information on storage conditions

Keep under lock and key or accessible only to specialists or people who are authorized. Keep container tightly closed and in a well-ventilated place. Keep in a cool place

SECTION 8: Exposure controls/personal protection

8.1. Control parameters



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

Other information

Contains no substances with occupational exposure limit values.

Derived No/Minimal Effect Levels (DNEL/DMEL)

Tetramethylene dimethacrylate

Type of value Derived No Effect Level (DNEL)

Reference group Worker
Duration of exposure Long term
Route of exposure inhalative
Mode of action Systemic effects

Concentration 14,5 mg/m³

Type of value Derived No Effect Level (DNEL)

Reference group Worker
Duration of exposure Long term
Route of exposure dermal

Mode of action Systemic effects

Concentration 4,2 mg/kg/d

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Long term

Route of exposure inhalative

Mode of action Systemic effects

Concentration 4,3 mg/m³

Type of value Derived No Effect Level (DNEL)

Reference group Consumer
Duration of exposure Long term
Route of exposure oral

Mode of action Systemic effects

Concentration 2,5 mg/kg

Type of value Derived No Effect Level (DNEL)

Reference group Consumer
Duration of exposure Long term
Route of exposure dermal

Mode of action Systemic effects

Concentration 2,5 mg/kg

Bisphenol A, ethoxylated, dimethacrylate

Type of value Derived No Effect Level (DNEL)

Reference group

Duration of exposure

Route of exposure

Mode of action

Concentration

Worker

Long term

inhalative

Systemic effects

3,52

Concentration 3,52 mg/m³

Type of value Derived No Effect Level (DNEL)

Reference group Worker
Duration of exposure Long term
Route of exposure dermal

Mode of action Systemic effects

Concentration 2 mg/kg

Type of value Derived No Effect Level (DNEL)



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

Reference group

Duration of exposure

Route of exposure

Mode of action

Systemic effects

Concentration 0,87 mg/m³

Type of value Derived No Effect Level (DNEL)

Reference group Consumer
Duration of exposure Long term
Route of exposure dermal

Mode of action Systemic effects

Concentration 1 mg/kg

Type of value Derived No Effect Level (DNEL)

Reference group Consumer
Duration of exposure Long term
Route of exposure oral

Mode of action Systemic effects

Concentration 0,5 mg/kg

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Type of value Derived No Effect Level (DNEL)

Reference group Worker
Duration of exposure Long term
Route of exposure dermal

Mode of action Systemic effects

Concentration 0,233 mg/kg/d

Type of value Derived No Effect Level (DNEL)

Reference group

Duration of exposure

Route of exposure

Mode of action

Consontration

Concentration 0,145 mg/m³

Type of value Derived No Effect Level (DNEL)

Reference group Consumer
Duration of exposure Long term
Route of exposure dermal

Mode of action Systemic effects

Concentration 0,0833 mg/kg/d

Type of value Derived No Effect Level (DNEL)

Reference group Consumer
Duration of exposure Long term
Route of exposure oral

Mode of action Systemic effects

Concentration 0,0833 mg/kg/d

Predicted No Effect Concentration (PNEC)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Type of value PNEC
Type Saltwater

Concentration 0,00014 mg/l

Type of value PNEC



Trade name: FotoCast

Concentration

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

> Replaces Version: 1 / GB Print date: 14.02.2024

Freshwater sediment Type

Concentration 0.115 mg/kg

PNEC Type of value

Marine sediment Type

> 0,0115 mg/kg

PNEC Type of value Type Soil

Concentration 0,0222 mg/kg

Tetramethylene dimethacrylate

Type of value **PNEC** Type Freshwater

Concentration 0,043 mq/l

Type of value **PNEC** Type Saltwater

Concentration 0,004 mg/l

PNEC Type of value

Type Water (intermittent release)

Concentration 0,098 mg/l

Type of value **PNEC**

Type Sewage treatment plant (STP)

Concentration mg/l

Type of value **PNEC**

Туре Freshwater sediment

Concentration 3.12 mg/kg

Type of value **PNEC**

Type Marine sediment

Concentration 0.312

mg/kg

PNEC Type of value Type Soil

0,573 Concentration mg/kg

8.2. Exposure controls

General protective and hygiene measures

Do not smoke during work time. Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Do not eat or drink during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin

Respiratory protection

Do not inhale vapours; Use suitable respiratory protective device in case of insufficient ventilation

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Hand protection must comply with EN 374. Appropriate Material Butyl rubber

Eye protection
Safety glasses
Body protection

Clothing as usual in the chemical industry.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state liquid

Colourreddish transparentOdourcharacteristic

Melting point

Remarks not determined

Freezing point

Remarks not determined

Boiling point or initial boiling point and boiling range

Value 211 °C

Flammability

evaluation not determined

Upper and lower explosive limits

Remarks not determined

Flash point

Value 139 °C

Method closed cup

Ignition temperature

Remarks not determined

Decomposition temperature

Remarks not determined

pH value

Remarks not determined

Viscosity

Remarks not determined

Solubility(ies)

Remarks not determined

Partition coefficient n-octanol/water (log value)

Remarks not determined

Vapour pressure

Remarks not determined

Density and/or relative density

Value 1,11 g/cm³

Temperature 20 °C

Relative vapour density



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

Remarks not determined

9.2. Other information

Odour threshold

Remarks not determined

Evaporation rate (ether = 1):

Remarks not determined

Solubility in water

Remarks virtually insoluble

Explosive properties

evaluation not determined

Oxidising properties

Remarks not determined

Other information

None known

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

No hazardous reactions known.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Protect from heat and direct sunlight

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

Irritant gases/vapours

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

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

Acute oral toxicity (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species rat

LD50 > 5000 mg/kg

Method OECD 401

Tetramethylene dimethacrylate

Species rat

LD50 10066 mg/kg



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

Method OECD 401

Bisphenol A, ethoxylated, dimethacrylate

Species rat

LD50 > 2000 mg/kg
Remarks Test conducted with a similar formulation.

Acute dermal toxicity

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

Acute dermal toxicity (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species rat

LD50 > 2000 mg/kg

Method OECD 402

Bisphenol A, ethoxylated, dimethacrylate

Species rat

LD50 > 2000 mg/kg

Method OECD 402

Remarks Test conducted with a similar formulation.

Acute inhalational toxicity

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

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Sensitization

evaluation May cause sensitization by skin contact. Remarks The classification criteria are met.

Sensitization (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Route of exposure dermal Species mouse

evaluation May cause sensitization by skin contact.

Tetramethylene dimethacrylate

Route of exposure dermal Species mouse evaluation sensitizing Method OECD 429

Subacute, subchronic, chronic toxicity

Remarks not determined

Mutagenicity

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

Reproductive toxicity

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

Reproduction toxicity (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

evaluation Suspected of damaging fertility.

Carcinogenicity

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

Specific Target Organ Toxicity (STOT)



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

Single exposure

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

Repeated exposure

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

Aspiration hazard

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

11.2 Information on other hazards

Endocrine disrupting properties with respect to humans

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Experience in practice

Inhalation may lead to irritation of the respiratory tract.

Other information

No toxicological data are available.

SECTION 12: Ecological information

12.1. Toxicity

General information

not determined

Fish toxicity (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species carp (Cyprinus carpio)

LC50 1,4 mg/l

Duration of exposure 96 h

Method OECD 203

Tetramethylene dimethacrylate

Species golden orfe (Leuciscus idus)

LC50 32,5 mg/l

Duration of exposure 48 h Method DIN 38412 / Part 15

Remarks Test conducted with a similar formulation.

Bisphenol A, ethoxylated, dimethacrylate

Species rainbow trout (Oncorhynchus mykiss)

LL50 > 100 mg/l

Method OECD 203

Remarks Test conducted with a similar formulation.

Daphnia toxicity (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species Daphnia magna

EC50 3,53 mg/l

Duration of exposure 48

Method OECD 202

Tetramethylene dimethacrylate

Species Daphnia magna

EC10 7,51 mg/l

Duration of exposure 21 d

Method OECD 211

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Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

Bisphenol A, ethoxylated, dimethacrylate

Species Daphnia magna

EL50 > 100 mg/l

Duration of exposure 48 h

Method OECD 202

Algae toxicity (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species Pseudokirchneriella subcapitata

EC50 > 2,01 mg/l

Duration of exposure 72 h

Method OECD 201

Tetramethylene dimethacrylate

Species Scenedesmus subspicatus

EC50 9,79 mg/l

Duration of exposure 72 h

Method OECD 201

Bisphenol A, ethoxylated, dimethacrylate

Species Pseudokirchneriella subcapitata

EL50 > 100 mg/l

Duration of exposure 72 h

Method OECD 201

Remarks Test conducted with a similar formulation.

Bacteria toxicity (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Species activated sludge

EC50 > 1000 mg/l

Duration of exposure 3 h

Method OECD 209

Tetramethylene dimethacrylate

Species activated sludge

NOEC 20 mg/l

Duration of exposure 28 d

Bisphenol A, ethoxylated, dimethacrylate

Species activated sludge

NOEC 14,3 mg/l

Duration of exposure 28 d

Remarks Test conducted with a similar formulation.

12.2. Persistence and degradability

General information

not determined

Biodegradability (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Value < 0 to 10 %

Duration of test 28 d

evaluation not readily degradable

Tetramethylene dimethacrylate

Value 84 %

Duration of test 28 d

evaluation Readily biodegradable (according to OECD criteria)

Bisphenol A, ethoxylated, dimethacrylate

Value 24 %



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

Duration of test 28 d

evaluation Readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

General information

not determined

Partition coefficient n-octanol/water (log value)

Remarks not determined

Octanol/water partition coefficient (log Pow) (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

log Pow 3,1 Temperature 23 °C

Tetramethylene dimethacrylate

log Pow 3,1
Temperature 20 °C

Bisphenol A, ethoxylated, dimethacrylate log Pow 4,39

Bioconcentration factor (BCF) (Components)

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

BCF 47 to 55

Concentration 0,1 mg/l
Duration of exposure 8 Weeks
Medium Freshwater

Species carp (Cyprinus carpio)

12.4. Mobility in soil

General information

not determined

12.5. Results of PBT and vPvB assessment

General information

not determined

Results of PBT and vPvB assessment

The product contains no PBT substances The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

General information

not determined

General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

SECTION 13: Disposal considerations



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

13.1. Waste treatment methods

Disposal recommendations for the product

Must not be disposed together with household garbage. Dispose of waste according to applicable legislation.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off as product waste.

SECTION 14: Transport information ***

	Land transport ADR/RID ***	Marine transport IMDG/GGVSee ***	Air transport ICAO/IATA ***
14.1. UN number or ID number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)		-	-
Label			
14.4. Packing group		<u>-</u>	-

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other information

All components are contained in the TSCA inventory or exempted.

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification (Regulation (EC) No. 1272/2008)

Skin Sens. 1B H317 Calculation method Aquatic Chronic 4 H413 Calculation method

Hazard statements listed in Chapter 2/3

H317 May cause an allergic skin reaction.
H361f Suspected of damaging fertility.

H413 May cause long lasting harmful effects to aquatic life.



Trade name: FotoCast

Substance number: 7050 Version: 2 / GB Date revised: 14.02.2024

Replaces Version: 1 / GB Print date: 14.02.2024

CLP categories listed in Chapter 2/3

Aquatic Chronic 4 Hazardous to the aquatic environment, chronic, Category 4

Repr. 2 Reproductive toxicity, Category 2 Skin Sens. 1B Skin sensitization, Category 1B

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: *** This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.