

Trade name: VarseoSmile Temp A2 (REF 41022, 41102)

Current version : 4.0.0, issued: 21.03.2019

Replaced version: 3.0.0, issued: 06.03.2018

Region: GB

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

1.1 Product identifier

Trade name

VarseoSmile Temp A2 (REF 41022, 41102)

VarseoSmile Temp A3 (REF 41023, 41103)

VarseoSmile Temp C2 (REF 41024, 41104)

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

Relevant identified uses of the substance or mixture

Resin for 3D printing of crown and bridge restorations

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet

Address

BEGO Bremer Goldschlägerei
Wilh. Herbst GmbH & Co. KG
Wilhelm-Herbst-Str. 1
28359 Bremen

Telephone no. +49/ 421/ 2028 – 0
Fax no. +49/ 421/ 2028 – 115
e-mail msds@bego.com

Information provided by / telephone

Research & Development Department - Materials, alloys and ceramics; +49/ 421/ 2028 – 130 (Chief Development Officer alloys)

Advice on Safety Data Sheet

msds@bego.com

1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Aquatic Chronic 4; H413
Eye Irrit. 2; H319
Skin Irrit. 2; H315
Skin Sens. 1; H317
STOT SE 3; H335

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



GHS07

Signal word

Warning

Hazardous component(s) to be indicated on label:

Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Hazard statement(s)

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H413 May cause long lasting harmful effects to aquatic life.

Precautionary statement(s)

P261 Avoid breathing mist/vapours/spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P312 Call a POISON CENTER/doctor if you feel unwell.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P501 Dispose of contents/container to a facility in accordance with local and national regulations.

2.3 Other hazards

PBT assessment
 No data available.

vPvB assessment
 No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

| No | Substance name | | Additional information | |
|----|--|--|------------------------|---------|
| | CAS / EC / Index / REACH no | Classification (EC) 1272/2008 (CLP) | Concentration | % |
| 1 | Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid | | | |
| | 41637-38-1 | Eye Irrit. 2; H319 | >= 50.00 - < 75.00 | % -b.w. |
| | - | Skin Irrit. 2; H315 | | |
| | - | Skin Sens. 1; H317 | | |
| | - | STOT SE 3; H335 Aquatic Chronic 4; H413 | | |
| 2 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | | | |
| | 75980-60-8 | Aquatic Chronic 2; H411 | < 2.50 | % -b.w. |
| | 278-355-8 | Skin Sens. 1B; H317 | | |
| | 015-203-00-X | Repr. 2; H361fd | | |
| | 01-2119972295-29 | | | |

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Full Text for all H-phrases and EUH-phrases: pls. see section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of allergic symptoms, especially respiratory tract related, seek medical help immediately. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

In case of contact with skin wash off immediately with copious amounts of water.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes).

After ingestion

Rinse mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide; Extinguishing powder; Water spray jet; Alcohol-resistant foam

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂); Phosphorus oxides

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Keep away sources of ignition. Do not inhale vapours. Refer to protective measures listed in sections 7 and 8.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g., sand, kieselguhr, universal binder). When picked up, treat material as prescribed under heading "Disposal considerations".

6.4 Reference to other sections

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation at the work area (local exhaust ventilation, if necessary). Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far it is possible by the state of the art.

General protective and hygiene measures

Wash hands before breaks and after work. Do not eat, drink or smoke during work time. Remove soiled or soaked clothing immediately. Keep away from food, drink and animal feeding stuffs. Avoid contact with eyes and skin. Provide eye wash fountain in work area.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original one.

Advice on storage assembly

Do not store together with: oxidizing agents

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL, DMEL and PNEC values

DNEL values (worker)

| No | Substance name | | | CAS / EC no |
|----|---|---------------------|----------|-------------------------|
| | Route of exposure | Exposure time | Effect | Value |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | | | 75980-60-8 278-355-8 |
| | dermal | Long term (chronic) | systemic | 1 mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 3.5 mg/m ³ |

PNEC values

| No | Substance name | | CAS / EC no |
|----|---|-----------------------|-------------------------|
| | ecological compartment | Type | Value |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | | 75980-60-8 278-355-8 |
| | water | fresh water | 0.004 mg/L |
| | water | marine water | 0 mg/L |
| | water | fresh water sediment | 0.29 mg/kg dry weight |
| | water | marine water sediment | 0.029 mg/kg dry weight |
| | soil | - | 0.056 mg/kg dry weight |

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, local exhaust at the work station if necessary.

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Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Chemical-resistant work clothes.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|--------|
| Form/Colour | |
| liquid | |
| Various, depending on coloration | |
| Odour | |
| No data available | |
| Odour threshold | |
| No data available | |
| pH value | |
| No data available | |
| Boiling point / boiling range | |
| Value | 150 °C |
| Melting point / melting range | |
| No data available | |
| Decomposition point / decomposition range | |
| No data available | |
| Flash point | |
| Value | 110 °C |

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| |
|----------------------------------|
| Auto-ignition temperature |
| No data available |

| |
|-----------------------------|
| Oxidising properties |
| No data available |

| |
|-----------------------------|
| Explosive properties |
| No data available |

| |
|----------------------------------|
| Flammability (solid, gas) |
| No data available |

| |
|---|
| Lower flammability or explosive limits |
| No data available |

| |
|---|
| Upper flammability or explosive limits |
| No data available |

| |
|------------------------|
| Vapour pressure |
| No data available |

| |
|-----------------------|
| Vapour density |
| No data available |

| |
|-------------------------|
| Evaporation rate |
| No data available |

| |
|-------------------------|
| Relative density |
| No data available |

| | | | |
|-----------------------|-----|---|-----------------------|
| Density | | | |
| Value | 1.4 | - | 1.5 g/cm ³ |
| Reference temperature | | | 20 °C |

| |
|----------------------------|
| Solubility in water |
| No data available |

| |
|------------------------|
| Solubility(ies) |
| No data available |

| Partition coefficient: n-octanol/water | | | |
|---|---|------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| log Pow | | | 3.1 |
| Reference temperature | | | 23 °C |
| Method | | OECD 117 | |
| Source | | ECHA | |

| |
|-------------------|
| Viscosity |
| No data available |

9.2 Other information

| |
|--------------------------|
| Other information |
| No data available. |

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

None, if handled according to order.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources.

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10.5 Incompatible materials

strong oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products known. In case of fire: see section 5.

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

| Acute oral toxicity | | | |
|---------------------|---|------------|------------------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| LD50 | > | 5000 | mg/kg bodyweight |
| Species | rat | | |
| Method | OECD 401 | | |
| Source | ECHA | | |

| Acute dermal toxicity | | | |
|-----------------------|---|------------|------------------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| LD50 | > | 2000 | mg/kg bodyweight |
| Species | rabbit | | |
| Method | OECD 402 | | |
| Source | ECHA | | |

| Acute inhalational toxicity | | | |
|-----------------------------|--|--|--|
| No data available | | | |

| Skin corrosion/irritation | | | |
|---------------------------|---|------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| Species | rabbit | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |

| Serious eye damage/irritation | | | |
|-------------------------------|---|------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| Species | rabbit | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |

| Respiratory or skin sensitisation | | | |
|-----------------------------------|---|------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| Route of exposure | Skin | | |
| Species | mouse | | |
| Method | OECD 429 | | |
| Source | ECHA | | |
| Evaluation | sensitizing | | |

| Germ cell mutagenicity | | | |
|---------------------------|---|------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

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| Reproduction toxicity | | | |
|---------------------------|---|---|------------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| Route of exposure | | oral | |
| NOAEL | | 150 | mg/kg bw/d |
| Species | | rat | |
| Method | | OECD 414 | |
| Source | | ECHA | |
| Evaluation/classification | | Based on available data, the classification criteria are met. | |

| Carcinogenicity |
|-------------------|
| No data available |

| STOT - single exposure |
|------------------------|
| No data available |

| STOT - repeated exposure |
|--------------------------|
| No data available |

| Aspiration hazard |
|-------------------|
| No data available |

SECTION 12: Ecological information

12.1 Toxicity

| Toxicity to fish (acute) |
|--------------------------|
| No data available |

| Toxicity to fish (chronic) |
|----------------------------|
| No data available |

| Toxicity to Daphnia (acute) | | | |
|-----------------------------|---|---------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| EC50 | | 3.53 | mg/l |
| Duration of exposure | | 48 | h |
| Species | | Daphnia magna | |
| Method | | OECD 202 | |
| Source | | ECHA | |

| Toxicity to Daphnia (chronic) |
|-------------------------------|
| No data available |

| Toxicity to algae (acute) | | | |
|---------------------------|---|---------------------------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| EC50 | | > | mg/l |
| Duration of exposure | | 2.01 | h |
| | | 72 | |
| Species | | Pseudokirchneriella subcapitata | |
| Method | | OECD 201 | |
| Source | | ECHA | |

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| Toxicity to algae (chronic) |
|------------------------------------|
| No data available |

| Bacteria toxicity |
|--------------------------|
| No data available |

12.2 Persistence and degradability

| Biodegradability | | | |
|-------------------------|---|------------------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| Type | | aerobic biodegradation | |
| Value | 0 | - 10 | % |
| Duration | | 28 | day(s) |
| Method | OECD 301 F | | |
| Source | ECHA | | |
| Evaluation | not readily biodegradable | | |

12.3 Bioaccumulative potential

| Partition coefficient: n-octanol/water | | | |
|---|---|------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 |
| log Pow | | 3.1 | |
| Reference temperature | | 23 | °C |
| Method | OECD 117 | | |
| Source | ECHA | | |

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

| Results of PBT and vPvB assessment | |
|---|--------------------|
| PBT assessment | No data available. |
| vPvB assessment | No data available. |

12.6 Other adverse effects

No data available.

12.7 Other information

| Other information |
|--|
| Do not discharge product unmonitored into the environment. |

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

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SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

| | |
|---|------|
| The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII. | No 3 |
|---|------|

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is not subject to Part 1 or 2 of Annex I.

Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

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Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

| | |
|--------|--|
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| H411 | Toxic to aquatic life with long lasting effects. |

Department issuing safety data sheet

UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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