

Trade name: VarseoSmile TriniQ

Current version : 2.0.0, issued: 16.03.2023

Replaced version: 1.0.0, issued: 14.11.2022

Region: GB

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

1.1 Product identifier

Trade name

VarseoSmile TriniQ

Valid for all colours and fillings

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 dental 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

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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.

2.2 Label elements

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

Hazard pictograms



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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
Benzeneacetic acid, .alpha.-oxo-, methyl ester
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.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P501 Dispose of contents/container to a facility in accordance with local and national regulations.

2.3 Other hazards

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 Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT SE 3; H335 Aquatic Chronic 4; H413	55.00 - 80.00 wt%
2	Benzeneacetic acid, .alpha.-oxo-, methyl ester		
	15206-55-0 239-263-3 - -	Skin Sens. 1; H317	< 5.00 wt%
3	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide		pls. refer to footnote (1)
	75980-60-8 278-355-8 015-203-00-X -	Aquatic Chronic 2; H411 Skin Sens. 1B; H317 Repr. 2; H361fd	< 2.50 wt%
4	titanium dioxide; [not containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]		
	13463-67-7 236-675-5 - -	-	< 2.50 wt%

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

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(1) Aberrant from/in addition to the classification set out in Annex VI, this substance is classified according to European Regulation (EC) No 1272/2008 (CLP), Article 4 (3), paragraph 2.

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
4	V, W, 10	-	-	-

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

No	Route, target organ, concrete effect
3	H361fd -; testes, bones; -

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. In case of persisting adverse effects consult a physician.

After skin contact

In case of contact with skin wash off immediately with copious amounts of water. Consult a doctor if skin irritation persists.

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). If eye irritation persists: Get medical advice/attention.

After ingestion

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

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

Treat symptomatically.

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 full protective suit. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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

For emergency responders

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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 collected, handle material as described under the section heading "Disposal considerations".

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

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). Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances.

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. Do not inhale vapours. Avoid contact with eyes and skin. Provide eye wash fountain in work area. Have emergency shower available.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. Pay attention to general rules of internal fire prevention. Take precautionary measures against electrostatic loading (earthing necessary during loading operations).

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.

Incompatible products

Substances to be avoided, see section 10.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limit values**

No	Substance name	CAS no.	EC no.
1	titanium dioxide; [not containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]	13463-67-7	236-675-5
List of approved workplace exposure limits (WELs) / EH40			
	Titanium dioxide total inhalable dust		
	WEL long-term (8-hr TWA reference period)	10	mg/m ³
List of approved workplace exposure limits (WELs) / EH40			
	Titanium dioxide respirable dust		
	WEL long-term (8-hr TWA reference period)	4	mg/m ³

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.

Appropriate Material In case of short-term contact / splash protection:

Appropriate Material	nitrile			
Material thickness		0.12	mm	
Breakthrough time	30	- 60	min	

Appropriate Material In case of longer-term contact:

Appropriate Material	nitrile			
Appropriate Material	neoprene			
Material thickness		0.2	mm	
Breakthrough time	240	- 480	min	
Appropriate Material	nitrile			
Material thickness	>			
Breakthrough time		480	min	

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**

State of aggregation	
liquid	
Form	
Liquid	
Colour	
Various, depending on coloration	
Odour	
No data available	
pH value	
Not applicable	
Source	supplier
Boiling point / boiling range	
Value	150 °C
Source	supplier
Melting point/freezing point	
No data available	
Decomposition temperature	
No data available	
Flash point	
Value	110 °C

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Source		supplier	
Ignition temperature			
No data available			
Flammability			
No data available			
Lower explosion limit			
No data available			
Upper explosion limit			
No data available			
Vapour pressure			
No data available			
Relative vapour density			
No data available			
Relative density			
No data available			
Density			
Value	1.25	-	1.5 g/cm³
Reference temperature			20 °C
Source	supplier		
Solubility			
No data available			
Partition coefficient n-octanol/water (log value)			
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		
Kinematic viscosity			
Value	2500	-	6000 mPa*s
Type	dynamic		
Source	supplier		
Particle characteristics			
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, when used as directed.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources. Protect from sun.

10.5 Incompatible materials

strong oxidizing agents

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10.6 Hazardous decomposition products

None if stored, handled and transported properly. In case of fire: see section 5.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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.		
Reproduction toxicity			
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 met.		
Carcinogenicity			
No data available			

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STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Information on other hazards**Endocrine disrupting properties**

No data available.

Other information

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		>	2.01
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

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	d
Method	OECD 301 F		
Source	ECHA		
Evaluation	not readily biodegradable		

12.3 Bioaccumulative potential

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Partition coefficient n-octanol/water (log value)			
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

No data available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 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.
dispose of in accordance with local regulation.

Packaging

Residues 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.

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 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations**

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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, MIXTURES AND ARTICLES

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

The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	diiron trioxide	1309-37-1	215-168-2	75
2	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	278-355-8	75
3	Iron hydroxide oxide yellow	51274-00-1	257-098-5	75
4	titanium dioxide; [not containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]	13463-67-7	236-675-5	75
5	triiron-tetraoxide	1317-61-9	215-277-5	75

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.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

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 section.

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.

Creation of the safety data sheet

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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.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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