



Printing date 25.08.2023 Version number 4 (replaces version 3) Revision: 25.08.2023

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

- · 1.1 Product identifier
- · Trade name:

GRADIA, Opaqus_Dentin, Enamel, Pearl_Enamel, Translucent_(T_1-5)

Nanoform

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- · Application of the substance / the mixture Auxiliary for dental technology
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

GC EUROPE N.V.

Interleuvenlaan 33

B-3001 Leuven

Tel. +32/(0)16/74.10.00

Fax + 32/(0)16/40.26.84

msds@gc.dental

- · Information department: Regulatory affairs
- · 1.4 Emergency telephone number: International: +01-813-248-0585 (ChemTel Inc.)

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

· Exemptions

The product, regulated as an invasive medical device by the Regulation (EC) 2017/745, is exempted from labelling requirements for substances and mixtures (according to the provision of the Art 1.5).

· Hazard pictograms





GHS07

GHS09

- · Signal word Warning
- · Hazard-determining components of labeling:

Urethane Dimethacrylate (UDMA)

1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde

2-(2H-benzotriazol-2-yl)-p-cresol

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· Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P272 Contaminated work clothing must not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face 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.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Additional information:

42.2 % of the mixture consists of component(s) of unknown toxicity.

Contains 42.2 % of components with unknown hazards to the aquatic environment.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

Determination of endocrine-disrupting properties

128-37-0 Butylated hydroxytoluene

List II

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterization: Mixtures
- · Description:

Only substances required to be mentioned according to Annex II of regulation 1907/2006 are listed. Information on the other substances that may be present can be obtained upon request.

rethane Dimethacrylate (UDMA) quatic Chronic 2, H411; Skin Sens. 1B, H317 lane, dichlorodimethyl-, reaction products with silica 2-dimethyl-1,3-propanediyl bismethacrylate in Irrit. 2, H315; Eye Irrit. 2, H319 2'-dimethyl-2,2'-azodipropiononitrile lf-react. C, H242; Acute Tox. 4, H302; Acute Tox. 4, H332; Aquatic Chronic 3,	25-<50% 10-<25% 10-<25% 1-<2.5%
lane, dichlorodimethyl-, reaction products with silica 2-dimethyl-1,3-propanediyl bismethacrylate in Irrit. 2, H315; Eye Irrit. 2, H319 2'-dimethyl-2,2'-azodipropiononitrile lf-react. C, H242; Acute Tox. 4, H302; Acute Tox. 4, H332; Aquatic Chronic 3,	10-<25%
2-dimethyl-1,3-propanediyl bismethacrylate in Irrit. 2, H315; Eye Irrit. 2, H319 2'-dimethyl-2,2'-azodipropiononitrile lf-react. C, H242; Acute Tox. 4, H302; Acute Tox. 4, H332; Aquatic Chronic 3,	10-<25%
in Irrit. 2, H315; Eye Irrit. 2, H319 2'-dimethyl-2,2'-azodipropiononitrile lf-react. C, H242; Acute Tox. 4, H302; Acute Tox. 4, H332; Aquatic Chronic 3,	
2'-dimethyl-2,2'-azodipropiononitrile lf-react. C, H242; Acute Tox. 4, H302; Acute Tox. 4, H332; Aquatic Chronic 3,	1-<2.5%
olf-react. C, H242; Acute Tox. 4, H302; Acute Tox. 4, H332; Aquatic Chronic 3,	1-<2.5%
712	1
licon dioxide	0.5-<1%
3,5-Triazine-2,4,6-triamine, polymer with formaldehyde	0.5-<1%
ve Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335	
anium dioxide	0.5-<1%
arc. 2, H351	
tert-butyl-2,4-xylenol	≥0.25-<0.59
cute Tox. 2, H310; STOT RE 2, H373; Aquatic Chronic 2, H411; Acute Tox. 4, 302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	
,	e Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335 unium dioxide urc. 2, H351 ert-butyl-2,4-xylenol

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2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol	≥0.25-<0.5%
Acute Tox. 3, H331; Aquatic Chronic 1, H410; Skin Sens. 1, H317	
128-37-0 Butylated hydroxytoluene	0.1-<0.2%
Aquatic Acute 1, H400; Aquatic Chronic 1, H410 (II)	.]

[·] Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

If symptoms persist consult doctor.

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. Take affected persons into fresh air and keep quiet.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment.

If skin irritation continues, consult a doctor.

· After eye contact:

Protect unharmed eye.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

- · 4.2 Most important symptoms and effects, both acute and delayed Allergic reactions
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

No further relevant information available.

- · 5.3 Advice for firefighters
- **Protective equipment:** Wear self-contained respiratory protective device.
- · Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures Remove persons from danger area.

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Avoid contact with the eyes and skin.

Wear protective clothing.

· 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to penetrate the ground/soil.

In case of seepage into the ground inform responsible authorities.

6.3 Methods and material for containment and cleaning up:

Absorb liquid components with liquid-binding material.

Dispose of the collected material according to regulations.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Avoid contact with the eyes and skin.

- · Information about protection against explosions and fires: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store only in unopened original receptacles.
- · Information about storage in one common storage facility: Store away from foodstuffs.
- · Further information about storage conditions: None.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs				
78-67-1 2,.	78-67-1 2,2'-dimethyl-2,2'-azodipropiononitrile			
Dermal	DNEL dermal	97 mg/kg bw/day (man)		
Inhalative	$DNEL\ inhalation$	0.07 mg/m3 (man)		
13463-67-	7 titanium dioxide			
Inhalative	DNEL inhalation	10 mg/m3 (man)		
1879-09-0	1879-09-0 6-tert-butyl-2,4-xylenol			
Inhalative	DNEL inhalation	0.14 mg/m3 (man)		
128-37-0 I	128-37-0 Butylated hydroxytoluene			
Dermal	DNEL dermal	0.5 mg/kg bw/day (man)		
Inhalative	DNEL inhalation	3.5 mg/m3 (man)		

· Additional information: The lists that were valid during the creation were used as basis.

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- · 8.2 Exposure controls
- Additional information about design of technical systems: No further data; see section 7.
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing.

- · Breathing equipment: Suitable respiratory protective device recommended.
- Protection of hands:



Protective gloves

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information

• Physical state Fluid

· Color: According to product specification

Odor: Ester-like
Odor threshold: Not determined.
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.
Flammability (solid, gaseous): Not applicable.

· Explosion limits:

Lower:

Not determined.

Upper:
Not applicable.

Auto igniting:
Undetermined.

Decomposition temperature:
Not determined.

Not applicable.

Undetermined.

Not determined.

Not determined.

· Viscosity:

• Kinematic: Not determined. • Dynamic: Not determined.

· Solubility in / Miscibility with

· Water: Insoluble.

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	(Contd. of page
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure:	Not determined.
Density and/or relative density	
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not determined.
Particle characteristics	SiO2: Diameter particle structure = 2.5 - 50 nm (TEM)
	d50, number-based)
	Diameter agglomerate = $5 - 50$ mm (laser diffraction dr
	module, d50, volume based)
	68611-44-9 Silane, dichlorodimethyl-, reaction produc
	with silica: Spheroidal, amorphous nanoform, se
	including amorphous nanoforms, amorphous form.
	surface-treated nanoforms
	7631-86-9 silicon dioxide: Spheroidal, amorphou
	nanoform, set including amorphous nanoform.
	amorphous forms, non-surface-treated nanoforms
9.2 Other information	
Appearance:	
Form:	Pasty
Important information on protection of healt environment, and on safety.	th and
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Solvent content:	1 Toutet wees not present an expression nazara.
VOC (EC)	$0.0~\mathrm{g/l}$
Change in condition	v.v <i>g</i> , r
Evaporation rate	Not determined.
Information with regard to physical hazard class	ses
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable	
Substances and mixtures, which emit hummanic	
in contact with water	Void
in contact with water	
in contact with water Oxidising liquids	Void
in contact with water Oxidising liquids Oxidising solids	Void Void
in contact with water Oxidising liquids	Void

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SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity: Based on available data, the classification criteria are not met.

72869-86-4 Urethane Dimethacrylate (UDMA) Oral LD50 >5,000 mg/kg (rat female) (OECD 401) 78-67-1 2,2'-dimethyl-2,2'-azodipropiononitrile Oral LD50 700 mg/kg (mus) 7631-86-9 silicon dioxide Oral LD50 10,000 mg/kg (rat (f+m)) 13463-67-7 titanium dioxide Oral LD50 >5,000 mg/kg (mouse) (OECD 420) Inhalative LC50/4 h >6.82 mg/l (rat male) 1879-09-0 6-tert-butyl-2,4-xylenol Oral LD50 910 mg/kg (rat (f+m)) (OECD 401) Dermal LD50 <200 mg/kg (rabbit) (OECD 402) 2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol Oral LD50 10,000 mg/kg (rat (f+m)) Inhalative LC50/4 h 0.59 mg/l (rat (f+m)) 128-37-0 Butylated hydroxytoluene	· LD/LC50 values that are relevant for classification:				
78-67-1 2,2'-dimethyl-2,2'-azodipropiononitrile Oral LD50 700 mg/kg (mus) 7631-86-9 silicon dioxide Oral LD50 10,000 mg/kg (rat (f+m)) 13463-67-7 titanium dioxide Oral LD50 >5,000 mg/kg (mouse) (OECD 420) Inhalative LC50/4 h >6.82 mg/l (rat male) 1879-09-0 6-tert-butyl-2,4-xylenol Oral LD50 910 mg/kg (rat (f+m)) (OECD 401) Dermal LD50 <00 mg/kg (rabbit) (OECD 402) 2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol Oral LD50 10,000 mg/kg (rat (f+m)) Inhalative LC50/4 h 0.59 mg/l (rat (f+m))	72869-86-	72869-86-4 Urethane Dimethacrylate (UDMA)			
Oral LD50 700 mg/kg (mus) 7631-86-9 silicon dioxide Oral LD50 10,000 mg/kg (rat (f+m)) 13463-67-7 titanium dioxide Oral LD50 >5,000 mg/kg (mouse) (OECD 420) Inhalative LC50/4 h >6.82 mg/l (rat male) 1879-09-0 6-tert-butyl-2,4-xylenol Oral LD50 910 mg/kg (rat (f+m)) (OECD 401) Dermal LD50 <200 mg/kg (rabbit) (OECD 402)	Oral	LD50	>5,000 mg/kg (rat female) (OECD 401)		
7631-86-9 silicon dioxide Oral LD50 10,000 mg/kg (rat (f+m)) 13463-67-7 titanium dioxide Oral LD50 >5,000 mg/kg (mouse) (OECD 420) Inhalative LC50/4 h >6.82 mg/l (rat male) 1879-09-0 6-tert-butyl-2,4-xylenol Oral LD50 910 mg/kg (rat (f+m)) (OECD 401) Dermal LD50 <200 mg/kg (rabbit) (OECD 402) 2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol Oral LD50 10,000 mg/kg (rat (f+m)) Inhalative LC50/4 h 0.59 mg/l (rat (f+m))	78-67-1 2,	78-67-1 2,2'-dimethyl-2,2'-azodipropiononitrile			
Oral LD50 10,000 mg/kg (rat (f+m)) 13463-67-7 titanium dioxide Oral LD50 >5,000 mg/kg (mouse) (OECD 420) Inhalative LC50/4 h >6.82 mg/l (rat male) 1879-09-0 6-tert-butyl-2,4-xylenol Oral LD50 910 mg/kg (rat (f+m)) (OECD 401) Dermal LD50 <200 mg/kg (rabbit) (OECD 402) 2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol Oral LD50 10,000 mg/kg (rat (f+m)) Inhalative LC50/4 h 0.59 mg/l (rat (f+m))	Oral	LD50	700 mg/kg (mus)		
13463-67-7 titanium dioxide Oral LD50 >5,000 mg/kg (mouse) (OECD 420) Inhalative LC50/4 h >6.82 mg/l (rat male) 1879-09-0 6-tert-butyl-2,4-xylenol Oral LD50 910 mg/kg (rat (f+m)) (OECD 401) Dermal LD50 <200 mg/kg (rabbit) (OECD 402)	7631-86-9	silicon dio	oxide		
Oral LD50 >5,000 mg/kg (mouse) (OECD 420) Inhalative LC50/4 h >6.82 mg/l (rat male) 1879-09-0 6-tert-butyl-2,4-xylenol Oral LD50 910 mg/kg (rat (f+m)) (OECD 401) Dermal LD50 < 200 mg/kg (rabbit) (OECD 402) 2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol Oral LD50 10,000 mg/kg (rat (f+m)) Inhalative LC50/4 h 0.59 mg/l (rat (f+m))	Oral	LD50	10,000 mg/kg (rat (f+m))		
Inhalative LC50/4 h >6.82 mg/l (rat male)	13463-67-	7 titanium	dioxide		
1879-09-0 6-tert-butyl-2,4-xylenol Oral LD50 910 mg/kg (rat (f+m)) (OECD 401) Dermal LD50 <200 mg/kg (rabbit) (OECD 402)	Oral	LD50	>5,000 mg/kg (mouse) (OECD 420)		
Oral LD50 910 mg/kg (rat (f+m)) (OECD 401) Dermal LD50 <200 mg/kg (rabbit) (OECD 402)	Inhalative	LC50/4 h	>6.82 mg/l (rat male)		
Dermal LD50 <200 mg/kg (rabbit) (OECD 402) 2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol Oral LD50 10,000 mg/kg (rat (f+m)) Inhalative LC50/4 h 0.59 mg/l (rat (f+m))	1879-09-0	6-tert-buty	yl-2,4-xylenol		
2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol Oral	Oral	LD50	910 mg/kg (rat (f+m)) (OECD 401)		
Oral LD50 10,000 mg/kg (rat (f+m)) Inhalative LC50/4 h 0.59 mg/l (rat (f+m))	Dermal	LD50	<200 mg/kg (rabbit) (OECD 402)		
Inhalative $ LC50/4 h = 0.59 \text{ mg/l (rat (f+m))}$	2440-22-4	2440-22-4 2-(2H-benzotriazol-2-yl)-p-cresol			
	Oral	LD50	10,000 mg/kg (rat (f+m))		
128-37-0 Butylated hydroxytoluene	Inhalative	LC50/4 h	0.59 mg/l (rat (f+m))		
	128-37-0				
Oral LD50 >6,000 mg/kg (rat (f+m)) (OECD 401)	Oral	LD50	>6,000 mg/kg (rat (f+m)) (OECD 401)		

- on the skin: Causes skin irritation.
- · on the eye: Causes serious eye irritation.
- · Sensitization: May cause an allergic skin reaction.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- Specific target organ toxicity single exposure Based on available data, the classification criteria are not met.
- · Specific target organ toxicity repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · Additional toxicological information:

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Repeated dose toxicity No further relevant information available.

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- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
 No further relevant information available.
- · 11.2 Information on other hazards

· Endocrine	disrunting	nronerties

128-37-0 Butylated hydroxytoluene

List II

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity:

72869-86-4 Urethane Dimethacrylate (UDMA)

EC50/48h (static) >1.2 mg/l (daphnia magna) (OECD 202)

128-37-0 Butylated hydroxytoluene

EC50/48h (static) 0.48 mg/l (daphnia magna) (OECD 202)

- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.
- · 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· European	waste catalogue
	WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (EXCEPT
	KITCHEN AND RESTAURANT WASTES NOT ARISING FROM IMMEDIATE HEALTH CARE)
18 01 00	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 06*	chemicals consisting of or containing hazardous substances

- · Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- · 14.1 UN-Number
- · ADR, IMDG, IATA

UN3082

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· 14.2 UN proper shipping name	
· DOT · ADR	not regulated 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (Urethane Dimethacrylate (UDMA), 6-tert-
· IMDG	butyl-2,4-xylenol) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (Urethane Dimethacrylate (UDMA), 6-tert-butyl-2,4
·IATA	xylenol), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (Urethane Dimethacrylate (UDMA), 6-tert-butyl-2,4- xylenol)
14.3 Transport hazard class(es)	
· ADR	
· Class · Label	9 (M6) Miscellaneous dangerous substances and articles 9
· IMDG, IATA	
· Class · Label	9 Miscellaneous dangerous substances and articles 9
· 14.4 Packing group · ADR, IMDG, IATA	III
14.5 Environmental hazards:	
· Marine pollutant:	No Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles
· Hazard identification number (Kemler code): · EMS Number:	90 F-A,S-F
Stowage Category	A
· 14.7 Transport in bulk according to Annex II o MARPOL73/78 and the IBC Code	f Not applicable.
Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L Code: El
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· Transport category	3

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· Tunnel restriction code	(-)
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (URETHANE DIMETHACRYLATE (UDMA) 6-TERT-BUTYL-2,4-XYLENOL), 9, III

SECTION 15: Regulatory information

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

· Section	355 (extreme	elv hazardous	substances).

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

- · Proposition 65
- · Chemicals known to cause cancer:

13463-67-7 titanium dioxide

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

		-		
· TLV (Threshold Limit Value)				
1309-37-1	Iron(III)oxide	ĺ		
13463-67-7	titanium dioxide	ĺ		
128-37-0	Butylated hydroxytoluene	ĺ		

· MAK (German	Maximum	Workplace	Concentration)

13463-67-7	titanium dioxide	<i>3A</i>
128-37-0	Butylated hydroxytoluene	4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

13463-67-7 titanium dioxide

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category E2 Hazardous to the Aquatic Environment
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t

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A4 A4 A4

Printing date 25.08.2023 Version number 4 (replaces version 3) Revision: 25.08.2023

Trade name: GRADIA, Opaqus_Dentin, Enamel, Pearl_Enamel, Translucent_(T_1-5)

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- · Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

- · Relevant phrases
- H242 Heating may cause a fire.
- H302 Harmful if swallowed.
- H310 Fatal in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eve irritation.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- · Classification according to Regulation (EC) No 1272/2008 Calculation method
- · Department issuing SDS: Regulatory affairs
- · Contact: msds@gc.dental
- Date of previous version 24.08.2023
- · Version number of previous version: 3
- · Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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Printing date 25.08.2023 Version number 4 (replaces version 3) Revision: 25.08.2023

Trade name: GRADIA, Opaqus Dentin, Enamel, Pearl Enamel, Translucent (T 1-5)

(Contd. of page 11)

ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) DNEL: Derived No-Effect Level (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health Self-react. C: Self-reactive substances and mixtures – Type C/D Acute Tox. 4: Acute toxicity - Category 4 Acute Tox. 2: Acute toxicity - Category 2 Acute Tox. 3: Acute toxicity - Category 3 Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 Skin Sens. 1: Skin sensitisation – Category 1 Skin Sens. 1B: Skin sensitisation - Category 1B Carc. 2: Carcinogenicity - Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

Sources

- ECHA (http://echa.europa.eu/)
- EnviChem (www.echemportal.org)

* Data compared to the previous version altered.

This version replaces all previous versions.

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