



Printing date 14.12.2023 Version number 5 (replaces version 4) Revision: 14.12.2023

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

- · 1.1 Product identifier
- · Trade name:

G-aenial\_FLO\_X

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 Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful 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



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

Urethane Dimethacrylate (UDMA)

2,2'-ethylenedioxydiethyl dimethacrylate

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

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

· Hazard statements

H317 May cause an allergic skin reaction.

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H412 Harmful 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.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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

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

## 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.

41637-38-1	Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-	10-<25%
	2-enoic acid.	
	Aquatic Chronic 4, H413	
72869-86-4	Urethane Dimethacrylate (UDMA)	5-<10%
	Aquatic Chronic 2, H411; Skin Sens. 1B, H317	
109-16-0	2,2'-ethylenedioxydiethyl dimethacrylate	2.5-<5%
	Skin Sens. 1, H317	
68611-44-9	Silane, dichlorodimethyl-, reaction products with silica	1-<2.5%
9003-08-1	1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde	0.5-<1%
	Eye Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335	
13463-67-7	titanium dioxide	0.5-<1%
	Carc. 2, H351	
1879-09-0	6-tert-butyl-2,4-xylenol	0.1-<0.2%
	Acute Tox. 2, H310; STOT RE 2, H373; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	
2440-22-4	2-(2H-benzotriazol-2-yl)-p-cresol	0.1-<0.2%
	Acute Tox. 3, H331; Aquatic Chronic 1, H410; Skin Sens. 1, H317	
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	0.1-<0.2%
	Repr. 2, H361f	

## ·SVHC

75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

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

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### 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:

Rinse opened eye for several minutes under running water. If symptoms persist, 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, sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents: Water
- · 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.

Avoid formation of dust.

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.

Do not allow to penetrate the ground/soil.

Do not allow to enter sewers/surface or ground water.

#### · 6.3 Methods and material for containment and cleaning up:

Allow to evaporate.

Pick up mechanically.

Prevent formation of dust.

Dispose of the collected material according to regulations.

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#### · 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 dust.

Any deposit of dust which cannot be avoided must be regularly removed.

Avoid contact with the eyes and skin.

### · Information about protection against explosions and fires:

Protect against electrostatic charges.

Dust can combine with air to form an explosive mixture.

- · 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

#### 13463-67-7 titanium dioxide

Inhalative DNEL inhalation 10 mg/m3 (man)

#### 1879-09-0 6-tert-butyl-2,4-xylenol

Inhalative | DNEL inhalation | 0.14 mg/m3 (man)

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

Do not inhale dust / smoke / mist.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

#### · Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Suitable respiratory protective device recommended.

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#### Protection of hands:

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



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 Solid

· Color: According to product specification

· Odor: Odorless
· Odor threshold: Not determined.
· Making point/Making range.

Melting point/Melting range:
 Boiling point/Boiling range:
 Flammability (solid, gaseous):

Undetermined.
180 °C
Not determined.

· Explosion limits:

Lower:

Voper:

Not determined.

Not applicable.

Not applicable.

Vundetermined.

Decomposition temperature:

Not determined.

Not applicable.

Not determined.

Not determined.

· Viscosity:

Kinematic: Not applicable.Dynamic: Not applicable.

· Solubility in / Miscibility with

Water: Insoluble.
 Partition coefficient (n-octanol/water): Not determined.
 Vapor pressure: Not applicable.

· Density and/or relative density

Density: Not determined.Relative density Not determined.

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· Vapor density	Not applicable.
· 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 product
	with silica:
	set including amorphous nanoforms
	surface-treated nanoforms
	Shape: Spheroidal
	Structure: amorphous forms
	Crystallinity: amorphous nanoform
· 9.2 Other information	
· Appearance:	
· Form:	Pasty
Important information on protection of health a	nd
environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
· Change in condition	
· Evaporation rate	Not applicable.
· Information with regard to physical hazard classes	
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 ga	
in contact with water	Void Void
· Oxidising liquids	,
· Oxidising solids	Void Void
· Organic peroxides	Void Void
· Corrosive to metals	voia Void
Desensitised explosives	v ota

## 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.

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• 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.

· LD/LC50	· LD/LC50 values that are relevant for classification:					
72869-86-4 Urethane Dimethacrylate (UDMA)						
Oral	LD50	>5,000 mg/kg (rat female) (OECD 401)				
13463-67-	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	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	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))				

- · on the skin: Based on available data, the classification criteria are not met.
- · on the eye: Based on available data, the classification criteria are not met.
- · 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.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

No further relevant information available.

- · 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

## 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)

- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.

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- · 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

The product does not contain substances with endocrine disrupting properties.

- · 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 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.

not regulated	
not regulated	
not regulated	
not regulated	
No	
Not applicable.	
ex II of	
Not applicable.	
	not regulated  not regulated  not regulated  No  Not applicable.

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th and environmental regulations/legislation sp	pecific for the substance or mixture
remely hazardous substances):	
edient is listed.	
cific toxic chemical listings):	
edients is listed.	
n to cause cancer:	
nium dioxide	
n to cause reproductive toxicity for females:	
edients is listed.	
n to cause reproductive toxicity for males:	
edients is listed.	
n to cause developmental toxicity:	
edients is listed.	
tegories	
ental Protection Agency)	
edients is listed.	
Limit Value)	
(III)oxide	
nium dioxide	
Maximum Workplace Concentration)	
nium dioxide	
ional Institute for Occupational Safety and Hea nium dioxide	uth)
num atoxiae	
8/EU	
us substances - ANNEX I None of the ingredient	
011/65/EU on the restriction of the use of center of the use of the us	ertain hazardous substances in electrical

- *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.

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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.

- REGULATION (EC) No 1005/2009 on substances that deplete the ozone layer ANNEX I (Ozone- depleting potential)
- · Other regulations, limitations and prohibitive regulations
- · Substances of very high concern (SVHC) according to REACH, Article 57

75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

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

## SECTION 16: Other information

- · Relevant phrases
- 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 eye irritation.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H361f Suspected of damaging fertility.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H413 May cause long lasting harmful effects to aquatic life.
- · Classification according to Regulation (EC) No 1272/2008 Calculation method
- · Department issuing SDS: Regulatory affairs
- · Contact: msds@gc.dental
- · Date of previous version 21.06.2023
- · Version number of previous version: 4
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

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# Safety data sheet according to 1907/2006/EC, Article 31

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OSHA: Occupational Safety & Health
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
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
A quatic\ 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
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard - Category 4
Sources
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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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