

Printing date: 05.03.2024

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according to Regulation (EU) 2020/878

Date of issue: 28.02.2024

Revision date: - / Version/Replaced version: 1.0/-

**Colloidal Graphite** 

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

1.1. Product identifier

Product form: Mixture

Product name: Colloidal Graphite

UFI:

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

Relevant identified uses: Manufacturing of dental prosthesis in dental laboratories

**Uses advised against:**Do not use outside of the dental laboratory.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier: al dente Dentalprodukte GmbH

Street / mailbox: Borsigstr. 1
Country code / postal code / city: D - 38644 Goslar
Phone: 0 53 21 / 80031
Fax: 0 53 21 / 50881

E-mail / Website: <a href="mailto:info@aldente.de">info@aldente.de</a> / <a href="mailto:www.aldente.de">www.aldente.de</a> <a href="mailto:aldente.de">aldente.de</a> / <a href="mailto:www.aldente.de">www.aldente.de</a> <a href="mailto:aldente.de">aldente.de</a> / <a href="mailto:www.aldente.de">www.aldente.de</a> <a href="mailto:aldente.de">aldente.de</a> / <a href="mailto:aldente.de">www.aldente.de</a> <a href="mailto:aldente.de">aldente</a> <a href="mailto:aldente.de">pentalprodukte</a> <a href="mailto:aldente.de">GmbH</a>

1.4. Emergency telephone number

al dente Dentalprodukte GmbH: +49 (0) 53 21 / 80031 (Mo-Fr 8:00-16:00)

**SECTION 2: Hazards identification** 

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2, H225

Serious eye damage/eye irritation, Category 2, H319

Full text of H statements: see section 16.

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes serious eye irritation.

2.2. Label elements

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

Hazard pictograms (CLP):





Signal word (CLP): Danger

Hazard statements (CLP): H225 - Highly flammable liquid and vapour

H319 - Causes serious eye irritation

**Precautionary statements (CLP):** P210 - Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking

P233 - Keep container tightly closed

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

P337+P313 - If eye irritation persists: Get medical

advice/attention

P403+P235 - Store in a well-ventilated place. Keep cool

2.3. Other hazards

Results of PBT and vPvB assessment

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PBT: Not applicable vPvB: Not applicable

#### **SECTION 3: Composition/information on ingredients**

**3.1. Substances:** Not applicable

3.2. Mixtures

Components:

Components.		
(CAS no) 64-17-5	Ethanol	50 - < 95 %
(EC no) 200-578-6	Flam. Liq. 2, H225	
(REACH no) 01-2119457610-43-xxxx	Eye Irrit. 2, H319	
	(C ≥ 50 %) Eye Irrit. 2, H319	
(CAS no) 7782-42-5	Graphite	15 - 20 %
(EC no) 231-955-3	Not classified	
(CAS no) 67-63-0	Isopropanol	< 10 %
(EC no) 200-661-7	Flam. Liq. 2, H225	
	Eye Irrit. 2, H319	
	STOT SE 3, H336	

Full text of H statements: see section 16.

#### **SECTION 4: First aid measures**

4.1. Description of first aid measures First-aid measures general:

Call a doctor if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the

affected person in the recovery position.

**First-aid measures after inhalation:** Remove victim to fresh air and keep at rest in a position

comfortable for breathing. Get medical advice/attention if you

feel unwell.

First-aid measures after skin contact: Take off contaminated clothing. Wash with plenty of soap and

water.

First-aid measures after eye contact: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Rinse mouth. Drink water as a precaution. Do NOT induce

vomiting.

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

**Symptoms/injuries after eye contact:** Causes serious eye irritation.

Other symptoms/injuries: Dizziness. Drowsiness. Nausea. Vomiting. Loss of

consciousness.

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: Dry extinguishing powder. Foam. Water spray.

**Unsuitable extinguishing media:** Do not use a heavy water stream.

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5.2. Special hazards arising from the substance or mixture

Fire hazard: Highly flammable liquid and vapour.

**Explosion hazard:** May form flammable/explosive vapour-air mixture.

Hazardous decomposition products in

case of fire:

Toxic fumes may be released. Carbon monoxide. Carbon

dioxide.

5.3. Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Do not

dispose of fire-fighting water in the environment.

**Protection during firefighting:**Use a self-contained breathing apparatus and also a

protective suit.

**SECTION 6: Accidental release measures** 

6.1. Personal precautions, protective equipment and emergency procedures

General measures:

Provide adequate ventilation. Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Stop leak if safe to do so. Use personal

protective equipment as required. Avoid contact with skin and

eyes. Do not breathe vapour/aerosol.

For non-emergency personnel

**Emergency procedures:** 

Evacuate unnecessary personnel.

For emergency responders

Protective equipment:

Wear personal protective equipment. Use self-contained

breathing apparatus.

**6.2.** Environmental precautions: Prevent entry to sewers and public waters.

6.3. Methods and material for containment

and cleaning up:

Soak up spills with inert solids, such as clay or diatomaceous

earth as soon as possible. Dispose of in accordance with

relevant local regulations.

**6.4.** Reference to other sections: Concerning personal protective equipment to use, see section

8. Concerning disposal elimination after cleaning, see section

13.

**SECTION 7: Handling and storage** 

7.1. Precautions for safe handling

Additional hazards when processed:

Handle empty containers with care because residual vapours

are flammable.

**Precautions for safe handling:** Provide good ventilation in process area to prevent formation

of vapour. Remove ignition sources. No open flames. No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Wear personal protective clothing. Do not breathe vapour/aerosol. Avoid contact with

skin and eyes.

Information on fire and explosion

protection:

May form flammable/explosive vapour-air mixture.

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Hygiene measures:

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Handle in accordance with good industrial hygiene and safety

procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the

workplace.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and containers

**Technical measures:** Proper grounding procedures to avoid static electricity should

be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting equipment.

Storage conditions: Store in original container. Keep container tightly closed.

Store in a dry, cool and well-ventilated place. Protect from sunlight. Keep out of frost. Keep in fireproof place. Store locked up. Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

**Prohibitions on mixed storage:** Keep away from food, drink and animal feedingstuffs.

**7.3.** Specific end use(s): No additional information available

**SECTION 8: Exposure controls/personal protection** 

# 8.1. Control parameters

Components with critical values that require monitoring at the workplace:		
Ethanol (64-17-5)	-	-
Ireland	Local name	Ethanol
Ireland	OEL (15 min ref) (ppm)	1000 ppm
Isopropanol (67-63-0	0)	
Ireland	Local name	Isopropyl alcohol
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (ppm)	400 ppm
Ireland	Notes	Sk
Graphite (7782-42-5)		
Ireland	Local name	Graphite (all forms except fibres)
Ireland	OEL (8 hours ref) (mg/m³)	2 mg/m³ R (Respirable Fraction)

Ethanol (64-17-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	380 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	114 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l
PNEC aqua (intermittent, freshwater)	2.75 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	2.9 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.63 mg/kg dwt

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PNEC (Oral) PNEC oral (secondary poisoning) 0.38 mg/kg food PNEC (STP) PNEC sewage treatment plant 580 mg/l **Isopropanol** (67-63-0) **DNEL/DMEL (Workers)** Acute - systemic effects, inhalation 1000 mg/m<sup>3</sup> Long-term - systemic effects, dermal 888 mg/kg bodyweight/day Long-term - systemic effects, inhalation 500 mg/m<sup>3</sup> **DNEL/DMEL (General population)** Acute - systemic effects, oral 51 mg/kg bodyweight/day Acute - systemic effects, inhalation 178 mg/m<sup>3</sup> Long-term - systemic effects,oral 26 mg/kg bodyweight/day Long-term - systemic effects, inhalation 89 mg/m<sup>3</sup> Long-term - systemic effects, dermal 319 mg/kg bodyweight/day

8.2. Exposure controls

Appropriate engineering controls: Provide local exhaust or general room ventilation to minimize

vapour concentrations.

Personal protective equipment

**Eye protection:** Wear safety glasses (EN 166).

Hand protection: Wear suitable gloves (EN 374). Butyl rubber, ≥ 0.7 mm. The

exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Penetration time (min.): ≥ 480 min

**Skin and body protection:** Wear suitable protective clothing. Flame retardant antistatic

protective clothing.

**Respiratory protection:** Where exposure through inhalation may occur from use,

Not applicable

respiratory protection equipment is recommended. Breathing

apparatus with filter type A-P.

**Environmental exposure controls:** Avoid release to the environment.

**SECTION 9: Physical and chemical properties** 

9.1. Information on basic physical and chemical properties

Physical state: Liquid Colour: black

Odour: No data available
Melting point/Freezing point: No data available
Boiling point or initial boiling point and No data available

boiling range:

Flammability: Highly flammable liquid and vapour

Lower and upper explosion limit:

Flash point:

Auto-ignition temperature:

Decomposition temperature:

Ph:

No data available

Partition coefficient n-octanol/water (log

value):

Vapour pressure: No data available

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No data available Density and/or relative density: Relative vapour density: No data available Particle characteristics: Not applicable

Other information

**Explosive properties:** May form flammable/explosive vapour-air mixture

Oxidising properties: No oxidising properties

**SECTION 10: Stability and reactivity** 

10.1. Reactivity: Highly flammable liquid and vapour. May form

flammable/explosive vapour-air mixture.

10.2. Chemical stability: Stable under use and storage conditions as recommended in

section 7.

10.3. Possibility of hazardous reactions: No dangerous reactions known under normal conditions of

use.

10.4. Conditions to avoid: Avoid contact with hot surfaces. Heat. No flames, no sparks.

Eliminate all sources of ignition.

10.5. Incompatible materials: Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products: No hazardous decomposition products known. In case of fire:

Toxic fumes may be released. Carbon dioxide. Carbon

monoxide.

**SECTION 11: Toxicological information** 

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

Acute toxicity: Not classified

Based on available data, the classification criteria are not met

Bacca on available data, the classification enteria are not mot
10470 mg/kg
124.7 mg/l/4h
> 2000 mg/kg
> 2000 mg/m³/4 h
5840 mg/kg
13900 mg/kg
> 25000 mg/m³/6 h

Skin corrosion/irritation: Not classified

Based on available data, the classification criteria are not met

Serious eye damage/irritation: Causes serious eye irritation

Respiratory or skin sensitisation: Not classified

Based on available data, the classification criteria are not met

Germ cell mutagenicity: Not classified

Based on available data, the classification criteria are not met

Carcinogenicity: Not classified

Based on available data, the classification criteria are not met

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Not classified

Based on available data, the classification criteria are not met

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Specific target organ toxicity (repeated

Specific target organ toxicity (single

exposure):

exposure):

Not classified

Based on available data, the classification criteria are not met

Aspiration hazard: Not classified

Based on available data, the classification criteria are not met

11.2. Information on other hazards

Potential adverse human health effects

and symptoms:

Based on available data, the classification criteria are not met

**SECTION 12: Ecological information** 

12.1. Toxicity

Acute aquatic toxicity:

Chronic aquatic toxicity:

Not classified

Not classified

**Ecology - general advice:** Avoid release to the environment. Prevent entry to sewers

and public waters.

Ethanol (64-17-5)	
LC50 fish:	14200 mg/l 96 h, Pimephales promelas
EC50 daphnia:	5012 mg/l 48 h, Ceriodaphnia dubia
EC50 algae:	275 mg/l 72 h, Chlorella vulgaris
NOEC fish:	250 mg/l 120 h, Danio rerio
NOEC daphnia:	9.6 mg/l 10 d, Ceriodaphnia dubia
Graphite (7782-42-5)	
LC50 fish:	> 100 mg/l 96 h, Danio rerio
EC50 daphnia:	> 100 mg/l 48 h, Daphnia magna
EC50 algae:	> 100 mg/l 72 h, Raphidocelis subcapitata
NOEC algae:	≥ 100 mg/l 72 h, Raphidocelis subcapitata
Isopropanol (67-63-0)	
LC50 fish:	9460 mg/l 96 h, Pimephales promelas
EC50 daphnia:	> 10000 mg/l 24 h, Daphnia magna
LC3 algae:	1800 mg/l 7 d, Scenedesmus quadricauda

12.2. Persistence and degradability

Ethanol (64-17-5)	
Persistence and degradability:	Readily biodegradable.
Biodegradation:	84 %, 20 d
Isopropanol (67-63-0)	
Persistence and degradability:	Readily biodegradable.
Biodegradation:	53 % 5 d

12.3. Bioaccumulative potential

Ethanol (64-17-5)		
Log Pow:	-0.35 (20 °C)	
Isopropanol (67-63-0)		
Log Pow:	0.05 (25 °C)	

12.4. Mobility in soil:

No additional information available

12.5. Results of PBT and vPvB assessment

PBT: Not applicable



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vPvB: Not applicable

**12.6.** Endocrine disrupting properties: No additional information available

**12.7.** Other adverse effects: No additional information available

**SECTION 13: Disposal considerations** 

13.1. Waste treatment methods

Regional legislation (waste): Dispose in a safe manner in accordance with local/national

regulations. The product is to be classified as hazardous

waste (waste paints).

Waste disposal recommendations: Treat contaminated packaging like the product itself.

Waste code - used product: The waste code number according to the Ordinance on the

European Waste Catalogue (AVV) depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately

from each waste producer.

Additional information: Handle empty containers with care because residual vapours

are flammable. Depending on the use. Do not perforate, cut

or weld uncleaned containers.

**SECTION 14: Transport information** 

14.1. UN number or ID number

 UN-No. (ADR):
 UN 1170

 UN-No. (IMDG):
 UN 1170

 UN-No. (IATA):
 UN 1170

14.2. UN proper shipping name

Proper Shipping Name (ADR): ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Proper Shipping Name (IMDG): ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

Proper Shipping Name (IATA): Ethanol solution

Transport document description (ADR): UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL

SOLUTION), 3, II, (D/E)

Transport document description (IMDG): UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL

SOLUTION), 3, II

Transport document description (IATA): UN 1170 Ethanol solution, 3, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR):

Danger labels (ADR):



**IMDG** 

Transport hazard class(es) (IMDG): 3
Danger labels (IMDG): 3



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**IATA** 

Transport hazard class(es) (IATA): 3
Danger labels (IATA): 3



14.4. Packing group

Packing group (ADR): || Packing group (IMDG): || Packing group (IATA): ||

14.5. Environmental hazards

**Dangerous for the environment:** No **Marine pollutant:** No

Other information:

No additional information available

14.6. Special precautions for user

Overland transport

Classification code (ADR): F1
Special provisions (ADR): 144, 601
Limited quantities (ADR): 11
Excepted quantities (ADR): E2

Packing instructions (ADR): P001, IBC02, R001

Mixed packing provisions (ADR): MP19
Portable tank and bulk container T4

instructions (ADR):

Portable tank and bulk container special TP1

provisions (ADR):

Tank code (ADR):

Vehicle for tank carriage:

Transport category (ADR):

Special provisions for carriage 
LGBF

FL

2

Special provisions for carriage 
S2, S20

Operation (ADR):

Hazard identification number (Kemler

No.):

Orange plates:

33	
1170	
D/E	

33

Tunnel restriction code (ADR):

Transport by sea

Special provisions (IMDG):

Limited quantities (IMDG):

Excepted quantities (IMDG):

Packing instructions (IMDG):

IBC packing instructions (IMDG):

Tank instructions (IMDG):

Tank special provisions (IMDG):

T14



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EmS-No. (Fire):F-EEmS-No. (Spillage):S-DStowage category (IMDG):A

Air transport

PCA Excepted quantities (IATA): E2
PCA Limited quantities (IATA): Y341
PCA limited quantity max net quantity 1L

(IATA):

PCA packing instructions (IATA): 353
PCA max net quantity (IATA): 5L
CAO packing instructions (IATA): 364
CAO max net quantity (IATA): 60L

Special provisions (IATA): A3, A58, A180

ERG code (IATA): 3L

14.7. Maritime transport in bulk according to

IMO instruments:

Not applicable

#### **SECTION 15: Regulatory information**

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

Contains no substance on the REACH candidate list.

Contains no REACH Annex XIV substances.

#### **National regulations**

No additional information available

#### **15.2.** Chemical safety assessment: A chemical safety assessment has not been carried out.

#### **SECTION 16: Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer.

#### Changes compared to the previous version

Full text of H- and EUH-statements

H225: Highly flammable liquid and vapour H319: Causes serious eye irritation H336: May cause drowsiness or dizziness

#### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by

Road

CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of

substances and mixtures

DMEL: Derived Minimal Effect Level
DNEL: Derived No-Effect Level

EC50: The effective concentration of substance that causes 50% of the maximum response

(Median Effective Concentration)

IATA: International Air Transport Association



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IMDG: "International Maritime Dangerous Goods Code" for the transport of dangerous goods

y sea

LC50: Lethal Concentration to 50 % of a test population (Median Lethal Concentration)

LD50: Lethal Dose to 50% of a test population (Median Lethal Dose)

LOAEL: No Observed Effect Concentration/Level

NOAEC/L: Organisation for Economic Cooperation and Development

NOEC/L: Persistent, Bioaccumulative and Toxic substance

OECD: Predicted No-Effect Concentration

PBT: Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation

and Restriction of Chemicals

PNEC: Safety Data Sheet
REACH: Sewage Treatment Plant
SDB (SDS): Unique Formula Identifier

STP: Very Persistent and Very Bioaccumulative

UFI: European Agreement concerning the International Carriage of Dangerous Goods by

Road

vPvB: Regulation (EC) No 1272/2008 on classification, labelling and packaging of

substances and mixtures

Eye Irrit. 2: Serious eye damage/eye irritation, Category 2

Flam. Liq. 2: Flammable liquids, Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Category 3, Narcosis