

according to Regulation (EU) 2020/878
 Date of issue: 28.02.2024
 Revision date: - / Version/Replaced version: 1.0/-


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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: info@aldente.de / www.aldente.de
 Information department: al dente Dentalprodukte GmbH
- 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):
- 
 GHS02


 GHS07
- 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:		
(CAS no) 64-17-5 (EC no) 200-578-6 (REACH no) 01-2119457610-43-xxxx	Ethanol Flam. Liq. 2, H225 Eye Irrit. 2, H319 (C ≥ 50 %) Eye Irrit. 2, H319	50 - < 95 %
(CAS no) 7782-42-5 (EC no) 231-955-3	Graphite Not classified	15 - 20 %
(CAS no) 67-63-0 (EC no) 200-661-7	Isopropanol Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	< 10 %

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: 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)		
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/m ³)	2 mg/m ³ R (Respirable Fraction)

Ethanol (64-17-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	380 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	114 mg/m ³
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 ³
Long-term - systemic effects, dermal	888 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	500 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	51 mg/kg bodyweight/day
Acute - systemic effects, inhalation	178 mg/m ³
Long-term - systemic effects, oral	26 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	89 mg/m ³
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, 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:** - 114,5°C
- Boiling point or initial boiling point and boiling range:** 78°C
- Flammability:** Highly flammable liquid and vapour
- Lower and upper explosion limit:** 15,0 Vol% // 3,4 Vol%
- Flash point:** 13°C
- Auto-ignition temperature:** No data available
- Decomposition temperature:** No data available
- pH:** No data available
- Kinematic viscosity:** No data available
- Solubility:** No data available
- Partition coefficient n-octanol/water (log value):** Not applicable
- Vapour pressure:** 59 hPa bei 20 °C

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

9.2. 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

Ethanol (64-17-5)	
LD50 oral rat:	10470 mg/kg
LC50 inhalation rat:	124.7 mg/l/4h
Graphite (7782-42-5)	
LD50 oral rat:	> 2000 mg/kg
LC50 inhalation rat:	> 2000 mg/m ³ /4 h
Isopropanol (67-63-0)	
LD50 oral rat:	5840 mg/kg
LD50 dermal rabbit:	13900 mg/kg
LC50 inhalation rat:	> 25000 mg/m ³ /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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Specific target organ toxicity (single exposure):	Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated 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:	Not classified
Chronic aquatic toxicity:	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
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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): 3
Danger labels (ADR): 3



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): II

Packing group (IMDG): II

Packing group (IATA): II

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

instructions (ADR): T4

Portable tank and bulk container special

provisions (ADR): TP1

Tank code (ADR): LGBF

Vehicle for tank carriage: FL

Transport category (ADR): 2

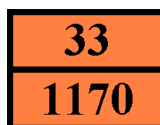
Special provisions for carriage -

Operation (ADR): S2, S20

Hazard identification number (Kemler

No.): 33

Orange plates:



Tunnel restriction code (ADR): D/E

Transport by sea

Special provisions (IMDG): 144

Limited quantities (IMDG): 1 L

Excepted quantities (IMDG): E2

Packing instructions (IMDG): P001

IBC packing instructions (IMDG): IBC02

Tank instructions (IMDG): T4

Tank special provisions (IMDG): TP1

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EmS-No. (Fire):	F-E
EmS-No. (Spillage):	S-D
Stowage category (IMDG):	A
Air transport	
PCA Excepted quantities (IATA):	E2
PCA Limited quantities (IATA):	Y341
PCA limited quantity max net quantity (IATA):	1L
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

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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 by 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