

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 02.02.2022

Version number 1

Revision Date 02.02.2022

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

- **1.1 Product identifier**
- **Trade name: Graphite Extender**
- **Article number:** AGG3418A
- **CAS Number:**
67-63-0
- **EC number:**
200-661-7
- **Index number:**
603-117-00-0
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:** No further relevant information available.
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier.**
Agar Scientific Ltd
Parsonage Lane
Stansted CM24 8GF
United Kingdom
sales@agarscientific.com
Tel: +44 (0) 1279 813 519
- **Further information obtainable from:** Technical Support
- **1.4 Emergency telephone number:** 24 hours: +44 (0)1856 407333

SECTION 2: Hazards identification

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



flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.


 Eye Irrit. 2 H319 Causes serious eye irritation.
 STOT SE 3 H336 May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**
propan-2-ol
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 02.02.2022

Version number 1

Revision Date 02.02.2022

Trade name: Graphite Extender

(Contd. of page 1)

H336 May cause drowsiness or dizziness.

Precautionary statements

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read carefully and follow all instructions.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Information concerning particular hazards for human and environment:

Appearance: Clear liquid

Immediate effects: H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

Primary Routes of entry: Inhalation, Ingestion and Eye and Skin contact.

Signs and Symptoms of Overexposure: Central nervous system depression, prolonged or repeated exposure can cause: Nausea, Headache, Vomiting, narcosis, Drowsiness, Overexposure may cause mild, reversible liver effects. Aspiration may lead to: Lung oedema, Pneumonia. Kidney - Irregularities - Based on Human Evidence.

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin: Wash off with soap and plenty of water. Consult a physician

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Chronic Exposure: Central nervous system depression, prolonged or repeated exposure can cause: Nausea, Headache, Vomiting, narcosis, Drowsiness, Overexposure may cause mild, reversible liver effects.

Chemical Listed As Carcinogen Or Potential Carcinogen: None. See Toxicological Information (Section 11)

Potential environmental effects: See Ecological Information (Section 12)

2.3 Other hazards
Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances
CAS No. Description

67-63-0 propan-2-ol

Identification number(s)
EC number: 200-661-7

Index number: 603-117-00-0

SECTION 4: First aid measures

4.1 Description of first aid measures
General information: Immediately remove any clothing soiled by the product.

After inhalation:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 02.02.2022

Version number 1

Revision Date 02.02.2022

Trade name: Graphite Extender

(Contd. of page 2)

- **After skin contact:**
Immediately rinse with water.
Wash off with soap and plenty of water. Consult a physician.
- **After eye contact:**
Rinse opened eye under running water. If symptoms persist, consult a doctor.
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- **After swallowing:**
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- **Information for doctor:**
Treatment: General advice, consult a physician. Show this safety data sheet to the doctor in attendance.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **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:**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **5.2 Special hazards arising from the substance or mixture**
Beware of vapours accumulating to form explosive concentrations.
Hazardous combustion products: Carbon oxides.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers.
- **Additional information**
Flash Point: 12.0 °C - closed cup.
Flammable Limits: Upper explosion limit: 12.7 %(V), Lower explosion limit: 2 %(V).
Auto-ignition point: 425.0 °C

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective gloves and glasses.
Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.

GB

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 02.02.2022

Version number 1

Revision Date 02.02.2022

Trade name: **Graphite Extender**

(Contd. of page 3)

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 skin and eyes. Avoid inhalation of vapour or mist.
- **Information about fire - and explosion protection:**
 The dried resin is combustible, similar to wood. Burning dry resin emits dense, black smoke. As latex, material is not combustible.
 Protect against electrostatic charges.
 Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.
- **7.2 Conditions for safe storage, including any incompatibilities**
 Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Handle and store under inert gas. Hygroscopic.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 Keep container tightly sealed.
 Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:**
 Ventilation required: Wear gas mask with filter type A if conc. in air > exposure limit. Use with good ventilation or use in chemical fume hood.

Ingredients with limit values that require monitoring at the workplace:	
67-63-0 propan-2-ol	
WEL	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.
 Avoid contact with the eyes and skin.
- **Respiratory protection:**
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 02.02.2022

Version number 1

Revision Date 02.02.2022

Trade name: Graphite Extender

(Contd. of page 4)

Protection of hands:


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

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.

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

Wear tight fitting goggles or face shield. Additional clothing and/or equipment: Eye wash station.

Body protection: Wear protective clothing and gloves.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance:

Form:	Liquid
Colour:	Colourless
Odour:	Alcohol-like
Odour threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/freezing point:	-89.5 °C
Initial boiling point and boiling range:	82 °C

Flash point: 13 °C (closed cup)

Flammability (solid, gas): Not applicable.

Ignition temperature: 425 °C

Decomposition temperature: Not determined.

Auto-ignition temperature: Not determined.

Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower: 2 Vol %

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 02.02.2022

Version number 1

Revision Date 02.02.2022

Trade name: **Graphite Extender**

(Contd. of page 5)

Upper:	12 Vol %
· Vapour pressure at 20 °C:	43 hPa
· Density at 20 °C:	0.785 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water at 20 °C:	1 g/l (Hygroscopic)
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	2.43 mPas
Kinematic:	Not determined.
Organic solvents:	100.0 %
VOC (EC)	100.00 %
· Solids content:	0.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
Stable under normal conditions. Test for peroxide formation before distillation or evaporation. Test for peroxide formation or discard after 1 year.
- **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** Heat, Sparks and Flame.
- **10.5 Incompatible materials:**
Oxidising agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids.
- **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 values relevant for classification:**

67-63-0 propan-2-ol

Oral	LD50	5,045 mg/kg (rat)
Dermal	LD50	12,800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)

- **Specific symptoms in biological assay:**
- **Skin corrosion/irritation** Mild irritating effect.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Other information (about experimental toxicology):**
Human experience: Central nervous system depression. Prolonged or repeated exposure can cause: Nausea, Headache, Vomiting, Narcosis, Drowsiness. Overexposure may cause mild, reversible liver effects. Aspiration may lead to: Lung oedema, Pneumonia. Kidney - Irregularities - Based on Human Evidence.

This product does not contain any compounds listed by NTP or IARC or regulated by OSHA as a

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 02.02.2022

Version number 1

Revision Date 02.02.2022

Trade name: Graphite Extender

(Contd. of page 6)

carcinogen.

- **Additional toxicological information:**

- **Acute effects (acute toxicity, irritation and corrosivity)**

LD50 Oral - rat - 5,045 mg/kg: Remarks: Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Somnolence (general depressed activity).

LC50 Inhalation - rat - 8 h - 16000 ppm.

LD50 Dermal - rabbit - 12,800 mg/kg.

Skin corrosion/irritation: Skin – rabbit Result: Mild skin irritation.

Serious eye damage/eye irritation: Eyes – rabbit: Result: Eye irritation - 24 h.

Respiratory or skin sensitisation: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Propanol).

Reproductive toxicity: No data available.

Specific target organ toxicity - single exposure: Inhalation, Oral - May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure: No data available.

Aspiration hazard: No data available.

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**

- **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.

- **STOT-single exposure**

May cause drowsiness or dizziness.

- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 5,102.00 mg/l - 24 h

Immobilization EC50 - Daphnia magna (Water flea) - 6,851 mg/l - 24 h

Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - > 2,000.00 mg/l - 72 h

EC50 - Algae - > 1,000.00 mg/l - 24 h

- **Aquatic toxicity:** No further relevant information available.

- **12.2 Persistence and degradability** No further relevant information available.

- **12.3 Bioaccumulative potential** No bioaccumulation is to be expected ($\log Pow \leq 4$).

- **12.4 Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

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

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

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

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 02.02.2022


Version number 1

Revision Date 02.02.2022

Trade name: Graphite Extender
(Contd. of page 7)

- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN1219
· 14.2 UN proper shipping name · ADR · IMDG, IATA	1219 ISOPROPANOL (ISOPROPYL ALCOHOL) solution ISOPROPANOL (ISOPROPYL ALCOHOL) solution
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA <div style="text-align: center;">  </div> · Class · Label	3 Flammable liquids. 3
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Flammable liquids. 33 F-E,S-D B
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml 2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL) SOLUTION, 3, II

GB

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 02.02.2022

Version number 1

Revision Date 02.02.2022

 Trade name: **Graphite Extender**

(Contd. of page 8)

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
- **Hazard-determining components of labelling:**
 Label Information: Flammable, Irritant.
 European Risk and Safety Phrases: F, Xi, R11 - R36 - R67
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category** P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Sales department
- **Contact:**
 sales@agarscientific.com
 Tel: +44 (0) 1279 813 519
- **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
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 2: Flammable liquids – Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3