

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: Crystalbond 509**
- **Article number:** AGB7312
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Mounting adhesive polymer.
- **Application of the substance / the preparation:** Not determined.
- **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**



Flam. Sol. 1 H228 Flammable solid.

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



GHS02

- **Signal word** Danger
- **Hazard statements**
H228 Flammable solid.
- **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.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P370+P378	In case of fire: Use CO ₂ , powder or water spray to extinguish.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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 · **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

 · **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 85-44-9 EINECS: 201-607-5	Phthalic Anhydride ⚠ Resp. Sens. 1, H334; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	60-90%
CAS: 107-21-1 EINECS: 203-473-3	Ethylene Glycol ⚠ Acute Tox. 4, H302	10-40%

· Additional information:

For the wording of the listed hazard phrases refer to section 16.

Emergency overview

Appearance: Clear or clear amber solid.

Immediate effects: ND

Potential health effects

Primary Routes of entry: For product: ND

Signs and Symptoms of Overexposure: ND

Eyes: NA

Skin: If in molten state, exposure to skin will cause severe thermal burn.

Ingestion: NA

Inhalation: NA

Potential environmental effects

See Ecological Information (Section 12)

Chronic Exposure: ND

Chemical Listed As Carcinogen Or Potential Carcinogen: None.

See Toxicological Information (Section 11).

SECTION 4: First aid measures

· 4.1 Description of first aid measures

 · **After inhalation:** NA

 · **After skin contact:** Treat for thermal burn. See physician.

 · **After eye contact:** NA

 · **After swallowing:** If symptoms persist consult doctor.

· 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 fire extinguishing methods suitable to surrounding conditions.

Foam, carbon dioxide, dry powder.

 · **For safety reasons unsuitable extinguishing agents:** Do not use water.

· 5.2 Special hazards arising from the substance or mixture

Flash Point: >262 °C. Method: COC

Hazardous combustion products: Carbon monoxide, carbon dioxide.

DOT Class: None

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- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective gloves and glasses.
- **6.2 Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Dispose of waste according to Federal, State and Local Regulations.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
If material is unusable, sweep up and dispose of in a metal container.
- **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** Avoid excessive heat, sparks, open flame.
- **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.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Storage temperature: Room temperature.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat.
- **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: Good industrial hygiene practice requires that employee exposure be maintained below the recommended TLV. This is preferably achieved through the provision of adequate ventilation where necessary. Where dust cannot be controlled in this way, personal respiratory protection should be employed.

Ingredients with limit values that require monitoring at the workplace:	
85-44-9 Phthalic Anhydride	
WEL	Short-term value: 12 mg/m ³ Long-term value: 4 mg/m ³ Sen
107-21-1 Ethylene Glycol	
WEL	Short-term value: 104** mg/m ³ , 40** ppm Long-term value: 10* 52** mg/m ³ , 20** ppm Sk *particulate **vapour

- **Additional information:** The lists valid during the making were used as basis.

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- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:**
Where dust cannot be controlled in this way, personal respiratory protection should be employed .
- **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

- **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:** Not required.
- **Body protection:** Care should be taken when in molten state.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Solid
· Colour:	Amber coloured
· Odour:	Odourless
· Odour threshold:	Not determined.

· pH-value:	Not applicable.
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· Change in condition

· Melting point/freezing point:	107 °C
· Initial boiling point and boiling range:	>148 °C

· Flash point:	>262 °C
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· Flammability (solid, gas):	Not determined.
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· Decomposition temperature:	Not determined.
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· Auto-ignition temperature:	Product is not selfigniting.
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· Explosive properties:	Not determined.
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· Explosion limits:

· Lower:	Not determined.
· Upper:	Not determined.

· Vapour pressure at 20 °C:	1.1 hPa
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· Density at 20 °C:	1.35 g/cm ³
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|------------------------------------|-----------------|
| · Relative density | Not determined. |
| · Vapour density | Not applicable. |
| · Evaporation rate at 20 °C | Nil |

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|--|------------|
| · Solubility in / Miscibility with water: | Insoluble. |
|--|------------|

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|--|-----------------|
| · Partition coefficient: n-octanol/water: | Not determined. |
|--|-----------------|

- | | |
|---------------------|-----------------|
| · Viscosity: | |
| Dynamic: | Not applicable. |
| Kinematic: | Not applicable. |

- | | |
|---------------------------|-----------|
| · Solvent content: | |
| VOC (EC) | 0.705 g/l |

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|--------------------------------|--|
| · 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.
- **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** Excessive heat, sparks, open flames.
- **10.5 Incompatible materials:** ND
- **10.6 Hazardous decomposition products:**
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

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:**

85-44-9 Phthalic Anhydride

Oral	LD50	4,200 mg/kg (rat)
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107-21-1 Ethylene Glycol

Oral	LD50	4,700 mg/kg (rat)
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Dermal	LD50	10,626 mg/kg (rabbit)
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- **Specific symptoms in biological assay:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
This product does not contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.
- **CMR effects (carcinogenicity, 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** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

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

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (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.
- **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.
Ensure proper disposal compliance with proper authorities before disposal.
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number	Not regulated
· 14.2 UN proper shipping name	Not regulated
· 14.3 Transport hazard class(es)	Not regulated
· 14.4 Packing group	Not regulated
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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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.

- **Relevant phrases**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

- **Department issuing SDS:** Sales department

- **Contact:**

sales@agarscientific.com

Tel: +44 (0) 1279 813 519

- **Abbreviations and acronyms:**

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)

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. Sol. 1: Flammable solids – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

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

- *** Data compared to the previous version altered.**