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

1.1 Product identifier
Trade name: Crystalbond 555-HMP Adhesive Stick

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

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

Acute Tox. 4 H302 Harmful if swallowed.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

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

2.2.1 Signal word Warning

2.2.2 Hazard statements
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

2.2.3 Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves / eye protection / face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)
Trade name: **Crystalbond 555-HMP Adhesive Stick**

- **P405** Store locked up.
- **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

- **Description**: Mixture of substances listed below with nonhazardous additions.
- **Dangerous components**: Void
- **Additional information**:
  - For the wording of the listed hazard phrases refer to section 16.
  - Primary Routes of entry: Eye, skin and inhalation.
  - Signs and Symptoms of Overexposure: ND
  - Eyes: May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.
  - Skin: Brief contact may cause slight irritation. Acute (short term) adverse effects are not expected from brief skin contact.
  - Ingestion: Moderately toxic. May cause abdominal discomfort, nausea, vomiting, and diarrhea.
  - Inhalation: Dust may cause irritation of the nose and throat. Overexposure to high concentrations of dust may cause respiratory irritation, experienced as coughing and difficulty breathing.
  - Chronic Exposure: No adverse effects have been documented in humans as a result of chronic exposure.
  - Chemical Listed As Carcinogen Or Potential Carcinogen: No

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- **General information**:
  - Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - Primary Routes of entry: Eye, skin and inhalation.

- **After inhalation**:
  - No adverse effects are anticipated from inhalation.
  - Remove from immediate source of exposure and assure that victim is breathing. If not breathing, administer cardio-pulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Seek medical attention.

- **After skin contact**:
  - Wash with water and soap and rinse thoroughly.
  - Immediately wipe excess material off skin with a dry cloth then wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes and clean thoroughly before re-use. Hot Fluid: Immediately cool skin with water and cold packs for at least 15 minutes. Do not put ice directly on skin. Do not attempt to remove solidified wax from the skin as severe tissue damage may result. Get immediate medical attention.

- **After eye contact**:
  - Rinse opened eye under running water. If symptoms persist, consult a doctor.
  - Eye(s) Contact Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist. If a physician is not immediately available, eye irrigation should be continued for an additional 15 minutes. Hot fluid product: Cool burns with plenty of low-pressure water and get immediate medical attention.

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• After swallowing:
  Call for a doctor immediately.
  If swallowed, do not induce vomiting. If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention immediately. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

• 4.2 Most important symptoms and effects, both acute and delayed
  No further relevant information available.

• Information for doctor:
  Treatment: ND
  Medical Conditions generally Aggravated by Exposure: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

• 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. Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

• 5.2 Special hazards arising from the substance or mixture
  Toxic levels of carbon monoxides, carbon dioxides, irritating aldehydes and ketones may be formed on burning. Heating in air may produce irritating aldehydes, acids and ketones.

• 5.3 Advice for firefighters
  Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus with full face piece and full chemical resistant protective clothing. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

• Protective equipment:
  Positive pressure breathing apparatus with full face piece and full chemical resistant protective clothing

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures
  Wear chemical goggles, bodycovering protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator where mist occurs. Hot wax can cause burns to eyes and skin. Avoid breathing dust.

• 6.2 Environmental precautions: Prevent entry into sewers and waterways.

• 6.3 Methods and material for containment and cleaning up:
  Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
  Use vacuuming or sweeping compound for cleanup. Do not dry sweep or use methods that increase dusting. Prevent entry into sewers and waterways. Flush area with water to complete cleanup.

• 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.
  Avoid contact with eyes, skin and clothing. Avoid breathing dust and vapors generated when melted. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills. Store in an area that is cool, dry, and well ventilated. Water contamination should be avoided. Store in clean plastic or steel containers.

- **Information about fire - and explosion protection:** No special measures required.

- **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.

- **7.3 Specific end use(s)**
  No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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

- **8.2 Exposure controls**
  Use with adequate ventilation. If vapor, mist or dust is generated appropriate personal protection equipment and local ventilation controls must be employed.

- **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 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.
    Airborne concentrations should be kept to lowest levels possible. If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self contained NIOSH-approved dust and mist respirator is required.
  - **Protection of hands:**
    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.
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- **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

- **Body protection:**
  Wear body-covering protective clothing.
  Additional clothing and/or equipment: Safety shower and eyewash fountain.

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**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
  **General Information**
  **Appearance:**
  - Form: Solid
  - Colour: Light yellow
  - Odour: Mild
  - Odour threshold: Not determined.
  **pH-value at 20 °C:** 7

- **Change in condition**
  - Melting point/freezing point: 58-63 °C
  - Initial boiling point and boiling range: Undetermined.

- **Flash point:** 275 °C

- **Flammability (solid, gas):** Not determined.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.

- **Vapour pressure:** Not applicable.

- **Density at 20 °C:** 1.08 g/cm³
  **Relative density** Not determined.
  **Vapour density at 20 °C** >1 (air=1)
  **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with water:** Soluble.

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.

- **Solvent content:**
  - VOC (EC) 0.00 %
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SECTION 10: Stability and reactivity

- **10.1 Reactivity**: No further relevant information available.
- **10.2 Chemical stability**: This material is stable under all conditions of use and storage.
  - **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**: Hazardous Polymerisation: Will not occur.
- **10.4 Conditions to avoid**: No further relevant information available.
- **10.5 Incompatible materials**: No further relevant information available.
- **10.6 Hazardous decomposition products**: Toxic levels of carbon monoxides, carbon dioxides, irritating aldehydes and ketones may be formed on burning. Heating in air may produce irritating aldehydes, acids and ketones.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity**: Harmful if swallowed.
  - **LD/LC50 values relevant for classification**:
    - Oral LD50 5,000 mg/kg (rat)
    - Dermal LD50 >2,000 mg/kg (rabbit)
  - **Skin corrosion/irritation**: Causes skin irritation.
  - **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)**:
  - Skin (rabbit) Draize: > 0.50-3.00/8, slightly irritating.
  - Eye (rabbit) Draize: > 15.00-25.00/110, slightly irritating.
  - This product does not contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen. This product may contain residual (less than 100 PPM) concentration of ethylene oxide. Ethylene oxide causes tumors in laboratory animals.
  - **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 respiratory irritation.
  - **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**: No further relevant information available.
- **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**: Not known to be hazardous to water.
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.
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 Void

14.2 UN proper shipping name
ADR, IMDG, IATA Void

14.3 Transport hazard class(es)
ADR, IMDG, IATA Void
Class
Label

14.4 Packing group
ADR, IMDG, IATA Void

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.

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

(Contd. on page 8)
Abbreviations and acronyms:

- ADR: Accord européen sur le transport 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
- 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
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

* Data compared to the previous version altered.