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

· 1.1 Product identifier
  · Trade name: Crystalbond 509-S Stripper
    · Article number: AGB7322
    · CAS Number: 127-19-5
    · EC number: 204-826-4
    · Index number: 616-011-00-4

· 1.2 Relevant identified uses of the substance or mixture and uses advised against
  Crystalbond 509-S stripper is high performance, environmentally safe chemical cleaning agent developed specifically for the removal of Crystalbond 509.
  · Product category Adhesive Solvent
  · Application of the substance / the preparation: No further relevant information.

· 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

    ┌──────────────────────┐
    │ GHS08 health hazard |
    └──────────────────────┘
    Repr. 1B      H360D  May damage the unborn child.
    STOT SE 1      H370  Causes damage to organs.
    STOT RE 2      H373  May cause damage to organs through prolonged or repeated exposure.

    ┌──────────────────────┐
    │ GHS07               |
    └──────────────────────┘
    Acute Tox. 4      H312  Harmful in contact with skin.
    Acute Tox. 4      H332  Harmful if inhaled.

· 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

    ┌──────────────────────┐
    │ GHS07               |
    │ GHS08               |
    └──────────────────────┘

· Signal word Danger

(Contd. on page 2)
Hazard-determining components of labelling:
Dimethyl Acetamide

Hazard statements
H312+H332 Harmful in contact with skin or if inhaled.
H360D May damage the unborn child.
H370 Causes damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.

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.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
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

3.1 Chemical characterisation: Substances
CAS No. Description
127-19-5 Dimethyl Acetamide
Identification number(s)
EC number: 204-826-4
Index number: 616-011-00-4

Dangerous components: Void

SVHC

127-19-5 Dimethyl Acetamide

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.
Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
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:
Immediately rinse with water.
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.
Trade name: Crystalbond 509-S Stripper

50.0

· After eye 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.

· After swallowing:
  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.

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 dry chemical, foam, carbon dioxide, or water spray.

5.2 Special hazards arising from the substance or mixture
  During heating or in case of fire poisonous gases are produced. Vapors can travel along surfaces to distant ignition sources and flash back. Vapors can spread along ground and collect in low confined areas. As with any organic material, contact with strong oxidizers may cause fire or explosion.

5.3 Advice for firefighters
  Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

5.4 Protective equipment:
  Positive pressure self-contained breathing apparatus. Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus with full face-piece and full chemical resistant protective clothing.

Additional information
  - Flash Point: >70°C (Closed Cup)
  - Upper Flame Limit (volume % in air): 11.5 @ 160°C (Dimethylacetamide)
  - Upper Flame Limit (volume % in air): 1.8 @ 100°C (Dimethylacetamide)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
  Wear gloves.
  Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator where mist occurs.

6.2 Environmental precautions:
  Dilute with plenty of water.
  Do not allow to enter sewers/ surface or ground water.

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.
  Ventilate area. Remove sources of ignition. Isolate hazard area. Absorb spill with inert material (e.g. vermiculite, sand, earth or non-combustible absorbent material) and place in chemical waste container. Rinse the spill area with water. Prevent entry into sewers and waterways.

6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
Keep away from heat, sparks and flames. Keep container tightly closed when not in use. Avoid contact with skin, eyes and on clothing. Avoid breathing vapor or mist. Remove contaminated clothing and wash thoroughly after handling. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.

Information about fire - and explosion protection:
Extinguishing media: Water fog - dried resin only.
Keep away from ignition sources.

7.2 Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles:
Keep away from sources of ignition. Store in an area that is cool, dry, and well ventilated. Store in clean plastic containers. Residual vapors might explode on ignition; do not apply heat, cut, drill, and grind or weld on or near this container.

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:
Use with adequate ventilation. Keep containers closed. Safety shower and eyewash fountain should be within direct access.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>WEL Short-term</th>
<th>WEL Long-term</th>
<th>Sk, BMGV</th>
</tr>
</thead>
<tbody>
<tr>
<td>127-19-5</td>
<td>Dimethyl Acetamide</td>
<td>72 mg/m³, 20 ppm</td>
<td>36 mg/m³, 10 ppm</td>
<td>BMGV</td>
</tr>
</tbody>
</table>

Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>BMGV 100 mmol/mol creatinine</th>
</tr>
</thead>
<tbody>
<tr>
<td>127-19-5</td>
<td>Dimethyl Acetamide</td>
<td>100 mmol/mol creatinine</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medium</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>urine</td>
<td>N-methylacetamide</td>
</tr>
</tbody>
</table>

Sampling time: post shift

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.
Store protective clothing separately.
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 vapor or mist is generated, appropriate personal protection equipment and local ventilation controls must be employed. 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:

  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.

· Penetration time of glove material

  The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

  Tightly sealed goggles

  Wear appropriate safety glasses or chemical splash goggles and face shield where contact due to splashing or spraying is possible.

· Body protection: Body-covering protective clothing to prevent skin exposure.

* SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:
  · Form: Liquid
  · Colour: Transparent
  · Odour: Ammonia-like
  · Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition
  · Melting point/freezing point: -20 °C
  · Initial boiling point and boiling range: 165.5 °C

· Flash point: 66 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 390 °C

· Decomposition temperature: Not determined.
Auto-ignition temperature: Not determined.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:
- Lower: 1.8 Vol %
- Upper: 11.5 Vol %

Vapour pressure at 20 °C: 3.3 hPa

Density at 20 °C: 0.96 g/cm³
- Relative density: Not determined.
- Vapour density: 2.5 (air=1)
- Evaporation rate: 0.17 (compared to Butyl Acetate)

Solubility in / Miscibility with water: Fully miscible.

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

Viscosity:
- Dynamic: Not determined.
- Kinematic: Not determined.

Solvent content:
- VOC (EC): 0.00 %
- Solids content: 90.0 %

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: This material is stable under all conditions of use and storage.
10.3 Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.4 Possibility of hazardous reactions: No dangerous reactions known.
10.5 Incompatible materials: Strong acids, strong oxidizers, strong reducing agents.
10.6 Hazardous decomposition products: Burning may produce nitrogen oxides, carbon monoxide, carbon dioxide, and dimethylamine.

Additional information: Hazardous Polymerization: Will not occur.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: Harmful in contact with skin or if inhaled.

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>127-19-5 Dimethyl Acetamide</td>
<td>4,930 mg/kg (rat)</td>
<td>2,240 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation. Harmful in contact with skin.

Serious eye damage/irritation: Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitisation: May cause drowsiness or dizziness. Harmful if inhaled.
Trade name: Crystalbond 509-S Stripper

- Other information (about experimental toxicology):
  Ingestion may cause dizziness, nausea and vomiting.
- Acute effects (acute toxicity, irritation and corrosivity)
  Harmful by inhalation and in contact with skin.
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Not classified.
- Carcinogenicity
  This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA.
- Reproductive toxicity
  May damage the unborn child.
  May cause harm to the unborn child.
- STOT-single exposure
  Causes damage to organs.
  May cause damage to liver. Vapours may cause drowsiness and dizziness.
- STOT-repeated exposure
  May cause damage to organs through prolonged or repeated exposure.
  May cause damage to the respiratory system through prolonged or repeated exposure.
- Aspiration hazard Not classified.

SECTION 12: Ecological information

- 12.1 Toxicity
  The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
- 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) (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.
- 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
  UN1993
- 14.2 UN proper shipping name
  ADR
  1993 FLAMMABLE LIQUID, N.O.S.
Trade name: Crystalbond 509-S Stripper

- IMDG, IATA
- FLAMMABLE LIQUID, N.O.S.
- 14.3 Transport hazard class(es)
- ADR, IMDG, IATA
- Class
- Label
- 3 Flammable liquids.
- 3
- 14.4 Packing group
- ADR, IMDG, IATA
- III
- 14.5 Environmental hazards:
- Marine pollutant:
- No
- 14.6 Special precautions for user
- Warning: Flammable liquids.
- EMS Number:
- F-E,S-E
- Stowage Category
- A
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- Not applicable.
- Transport/Additional information:
- ADR
- Limited quantities (LQ)
- 5L
- Code: E1
- Maximum net quantity per inner packaging: 30 ml
- Maximum net quantity per outer packaging: 1000 ml
- Excepted quantities (EQ)
- Code: E1
- 14.8 UN "Model Regulation":
- UN 1993 FLAMMABLE LIQUID, N.O.S., 3, III

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 Substance is not listed.
- Seveso category H3 STOT SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE
- Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 30, 72
- National regulations:
- Other regulations, limitations and prohibitive regulations
- Substances of very high concern (SVHC) according to REACH, Article 57
- 127-19-5 Dimethyl Acetamide
- 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.
Trade name: **Crystalbond 509-S Stripper**

- **Department issuing SDS**: Sales department
- **Contact**:
  - sales@agarscientific.com
  - Tel: +44 (0) 1279 813 519
- **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
  - SVHC: Substances of Very High Concern
  - vPvB: very Persistent and very Bioaccumulative
  - Acute Tox. 4: Acute toxicity - dermal – Category 4
  - Repr. 1B: Reproductive toxicity – Category 1B
  - STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
  - STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
- *Data compared to the previous version altered.*