1 Identification

· Product identifier
· Trade name: ALIKE (Powder, Shades: 59, 62, 65, 67, 77, and 81)
· Application of the substance / the mixture: Manufacture of dental prothesis
· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    GC America Inc.
    3737 W. 127th Street
    Alsip, IL 60803
    USA
    sds@gcamerica.com
  · Information department: Regulatory Affairs
  · Emergency telephone number:
    During normal opening times (Mon.-Fri. 8:00 AM-5:00 PM CST): +1 (708) 597-0900
    Transportation (CHEMTREC®) Emergency Telephone No. +1 (800) 424-9300

2 Hazard(s) identification

· Classification of the substance or mixture
  Acute Tox. 4 H332 Harmful if inhaled.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  STOT SE 3 H335 May cause respiratory irritation.
· Additional information:
  The information provided is in regards to the toxicity and hazard rating(s) of the individual component(s) in the formulation. The associated risk(s) depends on the route(s) of exposure. The hazard rating system is based entirely on the existence of the risk(s) and does not take into account the likelihood of reduced risk(s) through proper usage and handling.
· Label elements
  · GHS label elements
    The product is classified and labeled according to the Globally Harmonized System (GHS).
  · Hazard pictograms

GHS07

· Signal word: Warning
· Hazard-determining components of labeling:
  dibutyl phthalate
  dibenzoyl peroxide
· Hazard statements
  Harmful if inhaled.
  May cause an allergic skin reaction.
  May cause respiratory irritation.
· Precautionary statements
  Contaminated work clothing must not be allowed out of the workplace.

(Contd. on page 2)
Trade name: ALIKE (Powder, Shades: 59, 62, 65, 67, 77, and 81)

Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
  · NFPA ratings (scale 0 - 4)
    - Health = 1
    - Fire = 1
    - Reactivity = 1
  · HMIS-ratings (scale 0 - 4)
    - HEALTH
    - FIRE
    - REACTIVITY
    - Health = 1
    - Fire = 1
    - Reactivity = 1

· Other hazards
  · Results of PBT and vPvB assessment
    · PBT: Not applicable.
    · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:
<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>84-74-2 dibutyl phthalate</td>
<td>1-5%</td>
</tr>
<tr>
<td>poly(methyl methacrylate)</td>
<td>1-5%</td>
</tr>
<tr>
<td>94-36-0 dibenzoyl peroxide</td>
<td>&lt; 1%</td>
</tr>
</tbody>
</table>

· Additional information:
  If a substance is marked with **, then substance is a trade secret. This is allowed under OSHA’s Hazard Communication Standard (HCS) as a trade secret and under GHS as Confidential Business Information (CBI).

4 First-aid measures

· 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.
  If symptoms persist consult doctor.
· After inhalation:
  Supply fresh air or oxygen; call for doctor.
  In case of unconsciousness place patient stably in side position for transportation.
  Do not use mouth to mouth or mouth to nose resuscitation.
· After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
  Seek medical treatment.

(Contd. of page 1)

(Contd. on page 3)
Trade name: ALIKE (Powder, Shades: 59, 62, 65, 67, 77, and 81)

- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
  Rinse out mouth and then drink plenty of water. If symptoms persist consult doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: Allergic reactions
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents:
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
    Use fire fighting measures that suit the environment.
  - For safety reasons unsuitable extinguishing agents: Water with full jet
  - Special hazards arising from the substance or mixture
    In case of fire, the following can be released:
    Carbon monoxide and carbon dioxide
- Advice for firefighters
  - Protective equipment:
    Mouth respiratory protective device.
    Wear self-contained respiratory protective device.
- Additional information
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Remove persons from danger area.
  Avoid formation of dust.
  Avoid contact with the eyes and skin.
  Wear protective clothing.
- Environmental precautions:
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to penetrate the ground/soil.
  In case of seepage into the ground inform respective authorities.
- Methods and material for containment and cleaning up:
  Pick up mechanically.
  Prevent formation of dust.
  Dispose of the collected material according to regulations.
- 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.
7 Handling and storage

· **Handling:**
  · **Precautions for safe handling**
    Observe instructions for use.
    Ensure good ventilation/exhaustion at the workplace.
    Prevent formation of dust.
    Do not inhale dust / smoke / mist.
    Any deposit of dust which cannot be avoided must be regularly removed.
    Avoid contact with the eyes and skin.
  · **Information about protection against explosions and fires:**
    Dust can combine with air to form an explosive mixture.

· **Storage:**
  · **Requirements to be met by storerooms and receptacles:**
    Store only in unopened original receptacles.
  · **Information about storage in one common storage facility:**
    Store away from foodstuffs.
  · **Further information about storage conditions:**
    Observe instructions for use / storage.
    Keep receptacle tightly sealed.
  · **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

· **Control parameters**
  · **Components with limit values that require monitoring at the workplace:**
    The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
    At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>84-74-2 dibutyl phthalate</th>
<th>PEL</th>
<th>Long-term value: 5 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>REL</td>
<td>Long-term value: 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TLV</td>
<td>Long-term value: 5 mg/m³</td>
</tr>
</tbody>
</table>

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
  · **Personal protective equipment:**
    The usual precautionary measures for handling chemicals should be followed.
    Do not inhale dust / smoke / mist.
    Avoid contact with the eyes and skin.
    Wash hands before breaks and at the end of work.
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
  · **Breathing equipment:** Suitable respiratory protective device recommended.
  · **Protection of hands:** Protective gloves
  · **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**: Safety glasses
Trade name: ALIKE (Powder, Shades: 59, 62, 65, 67, 77, and 81)

- Solvent content:
  - Organic solvents: 0.0 %
  - Water: 0.3 %
- Solids content: 100.0 %
- Other information: No further relevant information available.

10 Stability and reactivity
- Reactivity: No further relevant information available.
- Chemical stability: Stable at ambient temperature.
- Thermal decomposition / conditions to be avoided:
  - No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: Reacts with strong acids.
- Hazardous decomposition products:
  - Carbon monoxide
  - Flammable gases/vapors
  - Poisonous gases/vapors
  - Carbon dioxide

11 Toxicological information
- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    - 84-74-2 dibutyl phthalate
      - Oral LD50: 8000 mg/kg (rat (f+m))
      - Dermal LD50: 20000 mg/kg (rabbit)
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
  - Sensitization: Sensitization possible through skin contact.
- Additional toxicological information:
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - poly(methyl methacrylate) 3
    - dibenzoyl peroxide 3
    - titanium dioxide 2B
    - iron(III) oxide 3
  - NTP (National Toxicology Program)
    - None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    - None of the ingredients is listed.
Trade name: ALIKE (Powder, Shades: 59, 62, 65, 67, 77, and 81)

· Carcinogenic categories' legend:
  IARC Group 1: The agent is carcinogenic to humans.
  IARC Group 2A: The agent is probably carcinogenic to humans.
  IARC Group 2B: The agent is possibly carcinogenic to humans.
  IARC Group 3: The agent is not classifiable as to its carcinogenicity to humans.
  IARC Group 4: The agent is probably not carcinogenic to humans.
  NTP K: Known to be human carcinogen.
  NTP R: Reasonably anticipated to be human carcinogen.
· Repeated dose toxicity. No further relevant information available.
· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  No further relevant information available.

12 Ecological information

· Toxicity
  · Aquatic toxicity: No further relevant information available.
  · Persistence and degradability No further relevant information available.
· Behavior in environmental systems:
  · Bioaccumulative potential No further relevant information available.
  · Mobility in soil No further relevant information available.
· Additional ecological information:
  · General notes:
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
  · Results of PBT and vPvB assessment
    · PBT: Not applicable.
    · vPvB: Not applicable.
  · Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods
  · Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· Uncleaned packagings:
  · Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number
  · DOT, ADR, ADN, IMDG, IATA Void
· UN proper shipping name
  · DOT, ADR, ADN, IMDG, IATA Void
Trade name: ALIKE (Powder, Shades: 59, 62, 65, 67, 77, and 81)

- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA
    - Class: Void
- Packing group
  - DOT, ADR, IMDG, IATA: Void
- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user: Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.
- UN "Model Regulation": Void

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - SARA (Superfund Amendments and Reauthorization Act)
    - Section 355 (extremely hazardous substances):
      - None of the ingredients is listed.
    - Section 313 (Specific toxic chemical listings):
      - dibutyl phthalate
      - dibenzoyl peroxide
  - TSCA (Toxic Substances Control Act):
    - poly(methyl methacrylate)
    - glass, oxide, chemicals
    - dibutyl phthalate
    - dibenzoyl peroxide
    - water
  - Carcinogenic categories
    - EPA (Environmental Protection Agency)
      - dibutyl phthalate: D
    - TLV (Threshold Limit Value established by ACGIH)
      - dibenzoyl peroxide: A4
      - titanium dioxide: A4
      - iron(III) oxide: A4
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    - titanium dioxide
  - GHS label elements
    - The product is classified and labeled according to the Globally Harmonized System (GHS).
Safety Data Sheet
acc. to OSHA HCS 29 CFR 1910.1200

Printing date 05/09/2016 Reviewed on 05/09/2016
Version US-EN-Rev 1

Trade name: ALIKE (Powder, Shades: 59, 62, 65, 67, 77, and 81)

· Hazard pictograms

![GHS07]

· Signal word  Warning

· Hazard-determining components of labeling:
  dibutyl phthalate
  dibenzoyl peroxide

· Hazard statements
  Harmful if inhaled.
  May cause an allergic skin reaction.
  May cause respiratory irritation.

· Precautionary statements
  Contaminated work clothing must not be allowed out of the workplace.
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wear protective gloves.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

· Department issuing SDS: Regulatory Affairs
· Contact:
  Regulatory Affairs
  Telephone No. +1 (708) 597-0900
  sds@gcamerica.com
· Date of preparation / last revision 05/09/2016 / -
· Abbreviations and acronyms:
  GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  HCS: Hazard Communication Standard (USA)
  MSDS: Material Safety Data Sheet
  SDS: Safety Data Sheet
  ADN: Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways)
  ECHA: European Chemicals Agency
  OSHA: Occupational Safety and Health Administration (USA)
  C.I.: Colour Index
  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
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health

(Contd. on page 10)
Safety Data Sheet
acc. to OSHA HCS 29 CFR 1910.1200

Trade name: ALIKE (Powder, Shades: 59, 62, 65, 67, 77, and 81)

(Contd. of page 9)

TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Sources
• Manufacturers’ MSDSs/SDSs
• OSHA (https://www.osha.gov/dts/chemicalsampling/toc/chmcas.html)
• TOXNET (http://toxnet.nlm.nih.gov/)
• ECHA (http://echa.europa.eu/)
• EnviChem (www.echemportal.org)

Notes:
CAS Registry Number is a Registered Trademark of the American Chemical Society.
CHEMTREC® is a registered service mark of the American Chemistry Council, Inc.

* Data compared to the previous version altered. This version replaces all previous versions.

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