

Printing date 04/20/2015

Version US-EN-Rev 1

Reviewed on 04/17/2015

1 Identification

- · Product identifier
- · Trade name: ALIKE (Powder, Shades: 59, 62, 65, 67, 77, and 81)
- Relevant identified uses of the substance or mixture and uses advised against

Dental material

The product is intended for professional use.

To avoid risks for humans and environment obtain instructions.

- · 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 Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

Eye Irrit. 2B H320 Causes eye 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



- · Signal word Warning
- · Hazard-determining components of labeling: dibutyl phthalate

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

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dibenzoyl peroxide

Hazard statements

Harmful if inhaled.

Causes skin and eve irritation.

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 in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

The substance possesses oxidizing properties.

· HMIS-ratings (scale 0 - 4)



*1 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: | | |
|-------------------------|---------------------------|--------|
| 84-74-2 | dibutyl phthalate | 10-20% |
| | poly(methyl methacrylate) | 1-5% |
| 94-36-0 | dibenzoyl peroxide | < 1% |

· 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).

- US

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

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4 First-aid measures

- Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

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.

· After eye contact:

Protect unharmed eye.

Rinse opened eye for several minutes under running water. Then 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: 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 responsible authorities.

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· 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.

Open and handle receptacle with care.

· Information about protection against explosions and fires:

Keep respiratory protective device available.

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:

84-74-2 dibutyl phthalate

PEL Long-term value: 5 mg/m³
REL Long-term value: 5 mg/m³
TLV Long-term value: 5 mg/m³

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Do not inhale dust / smoke / mist. Avoid contact with the eyes and skin.

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

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Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Store protective clothing separately.

- · 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

| a Dhy | reical | and c | hemical | pro | antine |
|-------|--------|----------|----------|-----|----------|
| эгш | ysicai | i allu c | Heimicai | PIU | Jei lies |

| r nysical and chemical prope | | |
|---|---|--|
| Information on basic physical and chemical properties | | |
| · General Information · Appearance: | | |
| Form: | Free-flowing powder | |
| Color: | Light Yellow to Light Brown | |
| · Odor: | Odorless | |
| · Odor threshold: | Not determined. | |
| · pH-value: | Not applicable. | |
| · Change in condition | | |
| Melting point/Melting range: | Undetermined. | |
| Boiling point/Boiling range: | Undetermined. | |
| · Flash point: | Not applicable. | |
| · Flammability (solid, gaseous): | May cause fire. | |
| · Ignition temperature: | Undetermined. | |
| · Decomposition temperature: | Not determined. | |
| · Auto igniting: | Product is not selfigniting. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| · Explosion limits: | | |
| Lower: | 0.1 Vol % | |
| Upper: | 2.0 Vol % | |
| · Vapor pressure: | Not applicable. | |
| · Density at 20 °C (68 °F): | 2.56 g/cm³ (21.363 lbs/gal) | |
| · Relative density | Not determined. | |
| · Vapour density | Not applicable. | |
| · Evaporation rate | Not applicable. | |

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|------------------------------------|--|-----------------|
| · Solubility in / Miscibility with | | |
| Water: | Insoluble. | |
| Partition coefficient (n-octano | I/water): Not determined. | |
| · Viscosity: | | |
| Dynamic: | Not applicable. | |
| Kinematic: | Not applicable. | |
| · 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: | | | | | |
|---|--|------|------------------------|--|--|--|
| I | 84-74-2 dibutyl phthalate | | | | | |
| ſ | Oral | LD50 | 8000 mg/kg (rat (f+m)) | | | |
| l | Dermal | LD50 | 20000 mg/kg (rabbit) | | | |

- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

İrritant

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· 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.

· 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.

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.

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- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

| 4 Transport information | |
|--|--------------------|
| · UN-Number · DOT, ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name · DOT, ADR, ADN, IMDG, IATA | Void |
| · 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 MARPOL73/78 and the IBC Code | of Not applicable. |
| · UN "Model Regulation": | - |

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 ingredient is listed.

· Section 313 (Specific toxic chemical listings):

dibutyl phthalate

dibenzoyl peroxide

· TSCA (Toxic Substances Control Act):

poly(methyl methacrylate)

dibutyl phthalate

glass, oxide, chemicals

dibenzoyl peroxide

water

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

dibutyl phthalate

D

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

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| 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).

Hazard pictograms



· Signal word Warning

Hazard-determining components of labeling:

dibutyl phthalate dibenzoyl peroxide

Hazard statements

Harmful if inhaled.

Causes skin and eye irritation.

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 in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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 04/20/2015 / -

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)

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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

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B

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.

· Disclaimer:

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1 Identification

- · Product identifier
- · Trade name: ALIKE (Liquid)
- · Relevant identified uses of the substance or mixture and uses advised against

Dental material

The product is intended for professional use.

To avoid risks for humans and environment obtain instructions.

- · 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

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

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled. Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

· 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







GHS02 GHS07 GHS08

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Trade name: ALIKE (Liquid)

· Signal word Danger

(Contd. of page 1)

· Hazard-determining components of labeling:

methyl methacrylate (MMA)

dimethacrylate**
methanol

accelerant**

· Hazard statements

Highly flammable liquid and vapor.

Harmful if swallowed, in contact with skin or if inhaled.

Causes skin irritation.

Causes serious eye irritation.

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

May cause an allergic skin reaction.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Wear protective gloves / eye protection / face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2 Fire = 3 Reactivity = 2

· HMIS-ratings (scale 0 - 4)



Health = 2 Fire = 3 Reactivity = 2

- 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.

| · Danger | · Dangerous components: | | |
|----------|---------------------------|------------|--|
| 80-62-6 | methyl methacrylate (MMA) | 80-90% | |
| 67-56-1 | methanol | 5-10% | |
| | dimethacrylate** | 1-5% | |
| | accelerant** | 1-5% | |
| | UV-light absorber** | 1-5% | |
| | (Contd | on nage 3) | |

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Trade name: ALIKE (Liquid)

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· 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.

· After eye contact:

Protect unharmed eye.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

Do not induce vomiting; immediately call for medical help.

Rinse out mouth and then drink plenty of water.

- · 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, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents: Water
- 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.

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Trade name: ALIKE (Liquid)

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Keep away from ignition sources

Avoid contact with the eyes and skin.

Wear protective clothing.

· Environmental precautions:

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Absorb liquid components with liquid-binding material.

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.

Do not inhale dust / smoke / mist.

Prevent formation of aerosols.

Avoid contact with the eyes and skin.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Do not spray on a naked flame or any incandescent material.

- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

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.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Store in a cool place.

· 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:

80-62-6 methyl methacrylate (MMA)

PEL Long-term value: 410 mg/m³, 100 ppm

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Trade name: ALIKE (Liquid)

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|----------|---|
| REL | Long-term value: 410 mg/m³, 100 ppm |
| TLV | Short-term value: 410 mg/m³, 100 ppm Long-term value: 205 mg/m³, 50 ppm (SEN) NIC-DSEN |
| 67-56 | 6-1 methanol |
| PEL | Long-term value: 260 mg/m³, 200 ppm |
| REL | Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin |
| TLV | Short-term value: 328 mg/m³, 250 ppm Long-term value: 262 mg/m³, 200 ppm Skin; BEI |
| acce | lerant** |
| WEE | L Long-term value: 0.5 ppm |
| · Ingre | edients with biological limit values: |
| 67-56 | 6-1 methanol |
| - | 15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific) |
| A al al: | tional information. The lists that were valid during the greation were used as basis |

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

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

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid Color: Colorless

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| | (Contd. of page |
|------------------------------------|---|
| Odor: | Methacrylic |
| Odor threshold: | Not determined. |
| pH-value: | Not determined. |
| Change in condition | |
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 64 °C (147 °F) |
| Flash point: | 12 °C (54 °F) |
| Flammability (solid, gaseous): | Not applicable. |
| Ignition temperature: | Undetermined. |
| Decomposition temperature: | Not determined. |
| Auto igniting: | Product is not selfigniting. |
| Danger of explosion: | Heating may cause an explosion. |
| - | Product is not explosive. However, formation of explosive a |
| | vapor mixtures are possible. |
| Explosion limits: | |
| Lower: | 2.1 Vol % |
| Upper: | 12.5 Vol % |
| Vapor pressure: | Not determined. |
| Density: | Not determined. |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Evaporation rate | Not determined. |
| Solubility in / Miscibility with | |
| Water: | Insoluble. |
| Partition coefficient (n-octanol/w | vater): Not determined. |
| Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| Solvent content: | |
| Organic solvents: | 8.7 % |
| VOC content: | 98.9 % |
| Other information | No further relevant information available. |

10 Stability and reactivity

- · Reactivity Danger of polymerization.
- Chemical stability Stable at ambient temperature.
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions

Spontaneous polymerization can be caused in unstabilized product e.g. by ambient heat.

Danger of receptacles bursting because of high vapor pressure if heated.

Exothermic polymerization.

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- · Conditions to avoid Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- · Incompatible materials:

Reacts with peroxides and other radical forming substances.

Reacts with amines.

Reacts with heavy metals.

· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

| · LD/LC50 | · LD/LC50 values that are relevant for classification: | | |
|------------|--|--------------------------|--|
| 67-56-1 m | 67-56-1 methanol | | |
| Oral | LD50 | 13000 mg/kg (rat (f+m)) | |
| Dermal | LD50 | 12800 mg/kg (rabbit) | |
| acceleran | accelerant** | | |
| Oral | LD50 | 1650 mg/kg (rat (f+m)) | |
| Dermal | LD50 | > 2000 mg/kg (rat (f+m)) | |
| Inhalative | LC50/4 h | 254 mg/l (rat (f+m)) | |

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization:

Sensitization possible through inhalation.

Sensitization possible through skin contact.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

İrritant

· Carcinogenic categories

| · IARC (International Agency for Research on Cancer) | |
|--|---|
| methyl methacrylate (MMA) | 3 |
| hydroquinone (HQ) | 3 |

NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· 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.

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12 Ecological information

- · Toxicity
- · Aquatic toxicity:

67-56-1 methanol

EC50/48h (static) 10000 mg/l (daphnia magna) (static)

- 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: Generally not hazardous for water
- 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, IMDG, IATA | UN1993 |
|---------------------------------------|--|
| · UN proper shipping name | |
| DOT | Flammable liquids, n.o.s. (Methyl methacrylate monomer, stabilized, Methanol) |
| · ADR | 1993 Flammable liquids, n.o.s. (Methyl methacrylate monomer, stabilized, Methanol) |
| · IMDG, IATA | FLAMMABLE LIQUID, N.O.S. (METHYL METHACRYLATE MONOMER, STABILIZED, METHANOL) |

- · Transport hazard class(es)
- · DOT



· Class 3 Flammable liquids

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| | (Contd. of page |
|--------------------------------------|--|
| Label | 3 |
| ADR, IMDG, IATA | |
| *** | |
| Class | 3 Flammable liquids |
| Label | 3 |
| Packing group | |
| DOT, ADR, IMDG, IATA | II |
| Environmental hazards: | |
| Marine pollutant: | No |
| Special precautions for user | Warning: Flammable liquids |
| EMS Number: | F-E, <u>S-E</u> |
| Transport in bulk according to Annex | ː II of |
| MARPOL73/78 and the IBC Code | Not applicable. |
| Transport/Additional information: | |
| ADR | |
| Excepted quantities (EQ) | Code: E2 |
| | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 500 ml |
| UN "Model Regulation": | UN1993, Flammable liquids, n.o.s. (Methyl methacryla monomer, stabilized, Methanol), 3, II |

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 ingredient is listed.
- · Section 313 (Specific toxic chemical listings):
 methyl methacrylate (MMA)
 methanol
- TSCA (Toxic Substances Control Act):

 All ingredients are listed.
- Carcinogenic categories
- · EPA (Environmental Protection Agency)
 methyl methacrylate (MMA)
 E, NL
- TLV (Threshold Limit Value established by ACGIH)
 methyl methacrylate (MMA)
 hydroquinone (HQ)
 A3

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NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms







GHS02 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

methyl methacrylate (MMA) dimethacrylate** methanol accelerant**

· Hazard statements

Highly flammable liquid and vapor.

Harmful if swallowed, in contact with skin or if inhaled.

Causes skin irritation.

Causes serious eve irritation.

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

May cause an allergic skin reaction.

· Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Wear protective gloves / eye protection / face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store in a well-ventilated place. Keep cool.

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 04/20/2015 / -

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

ECHA: European Chemicals Agency

OSHA: Occupational Safety and Health Administration (USA)

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

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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)

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, Hazard Category 2 Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

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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