

SAFETY DATA SHEETS

This SDS packet was issued with item:

072058386

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

072035012 072035020 273045788

SECTION 1 - SOURCE/IDENTITY/USE INFORMATION**DISTRIBUTOR**

GC AMERICA INC.

3737 West 127th St.

Alsip, Illinois, 60803

Telephone: 708-597-0900

Hours: Mon.- Fri. 8:00 am. - 5:00 pm. C.S.T.

Transportation Emergency Telephone No. 800-424-9300

COMMON NAME: G-CEM LinkAce – Paste B**PRODUCT USE:** Self adhesive resin cement for cementing metal, porcelain fused to metal resin and ceramic restorations.**SECTION 2 – COMPOSITION/DATA ON COMPONENTS**

COMPONENT	C.A.S.	%
Silicon dioxide		45-55
Urethanedimethacrylate		35-40
Dimethacrylate		5-10
Initiator		Trace
Inhibitor		Trace

SECTION 3 – HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW:**

Irritant to eyes and skin. May cause sensitization by skin contact if a person is known to be allergic to any of the ingredients.

POTENTIAL HEALTH EFFECTS**EYES:** Causes eye irritation**SKIN:** May cause skin irritation**INGESTION:** May cause irritation of the digestive tract**SECTION 4 – FIRST AID MEASURES****SKIN:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.**INGESTION:** Consult a doctor if symptoms persist.**INHALATION:** Supply fresh air and be sure to call for a doctor if symptoms persist.**EYES:** Flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Consult a doctor if symptoms persist.**SECTION 5 – FIRE FIGHTING MEASURES****FLAMMABLE PROPERTIES:** Material is not flammable.**FLASH POINT:** 93° C**FLAMMABLE LIMITS:** Not determined**AUTO IGNITION TEMPERATURE:** Not determined**HAZARDOUS COMBUSTION PRODUCTS:** None**EXTINGUISHING MEDIA:** Carbon dioxide, dry chemicals, alcohol resistant foam, water spray.**FIRE FIGHTING INSTRUCTIONS:** No special measures required.**SECTION 6 – ACCIDENTAL RELEASE MEASURES****SMALL SPILL:** Absorb with liquid-binding material (sand, diatomite, acid binders, etc)**LARGE SPILL:** Usually, no occasions large spill released.**SECTION 7 – HANDLING AND STORAGE****HANDLING:** No special measures required.**STORAGE:** Store at room temperature away from heat, moisture and direct sunlight. Keep receptacle tightly sealed.

SECTION 8 – EXPOSURE CONTROL, PERSONAL PROTECTION

RESPIRATORY PROTECTION: Not required.

SKIN PROTECTION: Protective gloves

EYE PROTECTION: Tightly sealed goggles

ENGINEERING CONTROLS: Not required

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White color paste

ODOR: Odorless

BOILING POINT: Not determined

VAPOR PRESSURE: Not determined

VAPOR DENSITY: Not determined

SOLUBILITY IN WATER: Not miscible.

SPECIFIC GRAVITY: Not determined

FREEZING POINT: Not determined

pH: Approx. 1.5

VOLATILE: None

SECTION 10- STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: No incompatibility known

HAZARDOUS DECOMPOSITION PRODUCTS: No hazardous products known.

HAZARDOUS POLYMERIZATION: No hazardous polymerization known.

SECTION 11- TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS: Not determined.

PRIMARY IRRITANT EFFECT:

ON THE SKIN: Irritant to skin and mucous membranes.

ON THE EYE: Irritant effect

SENSITIZATION: Sensitization possible through skin contact.

SECTION 12- ECOLOGICAL INFORMATION

GENERAL NOTES: Not known to be hazardous to water.

SECTION 13- DISPOSAL CONSIDERATIONS

RECOMMENDATION: Must not be disposed together with household garbage. Do not allow product to reach sewage system. Disposal must be made according to the local official regulations.

SECTION 14- TRANSPORT INFORMATION

IMO Regulations: Not applicable

ICAO and IATA Regulations: Not applicable

SECTION 15- REGULATORY INFORMATION

Follow the state or local regulations, if any.

SECTION 16- OTHER INFORMATION

No information is available.

DATE: 6 August 2012

The information herein is given in good faith but no warranty expressed or implied is made.



Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/24/2015

1 Identification

- **Product identifier**

- **Trade name:** G-CEM LinkAce (Paste B, Shades: A2, AO3, BO1, and Translucent)

- **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** Dental cement

- **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**

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

H227 Combustible liquid.

- **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**



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

urethane dimethacrylate (UDMA)

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Trade name: G-CEM LinkAce (Paste B, Shades: A2, AO3, BO1, and Translucent)

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stabilizer**

Hazard statements

Combustible liquid.
 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 flames and hot surfaces. – No smoking.
 Wear protective gloves / eye protection / face protection.
 Contaminated work clothing must not be allowed out of the workplace.
 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.

Additional information:

17.6 % of the mixture consists of component(s) of unknown toxicity.

Classification system:
NFPA ratings (scale 0 - 4)


Health = 1
 Fire = 1
 Reactivity = 0

HMIS-ratings (scale 0 - 4)


Health = *1
 Fire = 1
 Reactivity = 0

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:

72869-86-4	urethane dimethacrylate (UDMA)	25-50%
	dimethacrylate**	5-10%
	phosphoric acid ester monomer**	1-5%
	initiator**	< 1%
	stabilizer**	< 0.5%

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).

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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; consult doctor in case of complaints.
In case of unconsciousness place patient stably in side position for transportation.
- **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**
Formation of toxic gases is possible during heating or in case of fire.
- **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 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.
- **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb liquid components with liquid-binding material.

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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.

Avoid contact with the eyes and skin.

· **Information about protection against explosions and fires:** No special measures required.

· **Storage:** Store only in the original receptacle.

· **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:**

initiator**

WEEL	Long-term value: 6 mg/m ³ , 1 ppm
	Skin

· **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.

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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: Safety glasses

9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:
Form: Pasty

Color: White

· Odor: Odorless

· Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition
Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

· Flash point: 93 °C (199 °F)

· Flammability (solid, gaseous): Not applicable.

· 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: Not determined.

Upper: Not determined.

· 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/water): Not determined.

· Viscosity:
Dynamic: Not determined.

Kinematic: Not determined.

· Solvent content:
Organic solvents: 0.0 %

Solids content: 70.0 %

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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:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification:
stabilizer**

Oral	LD50	530 mg/kg (mouse)
		910 mg/kg (rat (f+m)) (OECD 401)

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:
Irritant

Carcinogenic categories
IARC (International Agency for Research on Cancer)

silica, vitreous

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:

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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 3 (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely 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 |
| · Transport hazard class(es)
· DOT, ADR, ADN, IMDG, IATA
· Class | Void |
| · Packing group
· DOT, ADR, IMDG, IATA | Void |

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- | | |
|--|-----------------|
| · 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": | - |

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):

initiator**

· TSCA (Toxic Substances Control Act):

silica, vitreous

urethane dimethacrylate (UDMA)

dimethacrylate**

surface-treated silica**

silane**

initiator**

stabilizer**

· Carcinogenic categories
· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

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

silica, vitreous

· GHS label elements

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

· Hazard pictograms


GHS08

· Signal word Danger

· Hazard-determining components of labeling:

urethane dimethacrylate (UDMA)

stabilizer**

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Hazard statements

Combustible liquid.
 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 flames and hot surfaces. – No smoking.
 Wear protective gloves / eye protection / face protection.
 Contaminated work clothing must not be allowed out of the workplace.
 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 MSDS: Regulatory Affairs

Contact:

Regulatory Affairs
 Telephone No. +1 (708) 597-0900
 sds@gcamerica.com

Date of preparation / last revision 02/24/2015 / -

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)
 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
 : Flammable liquids, 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)

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Notes:

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

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