

SAFETY DATA SHEETS

This SDS packet was issued with item:

072088581

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).

072088516 072088532 072088540 072088557 072088565 273012205

MI PASTE PLUS
MATERIAL SAFETY DATA SHEET**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 No. 800-424-9300

COMMON NAME: MI PASTE PLUS**PRODUCT USE:** Topical paste with bio-available calcium and phosphate

The following information is provided with regard to the toxicity and hazards the pure components present in this product.

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	C.A.S.	EXPOSURE LIMITS	LD50/LC50	%
Glycerol	56-81-5	TWA=10 mg/m ³ (as mist) (ACGIH)	N.E.	10-20
Propylene glycol	57-55-6	TWA=10mg/m ³ Dow (mist)	LD50=20.0-33.7g/kg (oral rat) LC50=N.E.	0-2
Sodium fluoride	7681-49-4	5.6 g/Kg	LD50=2,000mg/kg (oral rat)	0.2
CPP-ACP	691364-49-5	N.E.	N.E.	5-10
D-glucitol	50-70-4	N.E.	N.E.	0-5
Silicon dioxide	7631-86-9	TLV=10mg/m ³ total dust (ACGIH) PEL=80mg/m ³ (OSHA)	LD50=>10,000mg/kg (oral-rat) LC50=N.E.	0-2
Titanium dioxide	13463-67-7	TWA=10mg/m ³ (respirable) (ACGIH)	N.E.	0-2
Ethyl-4-hydroxybenzoate	120-47-8	N.E.	N.E.	<0.1
Butyl-parahydroxybenzoate	94-26-8	N.E.	N.E.	<0.1
Propyl-4-hydroxybenzoate	94-13-3	N.E.	N.E.	<0.1

SECTION 3 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT: 100°C
VAPOR PRESSURE: 23.0 hPa
VAPOR DENSITY: N.E.
SOLUBILITY IN WATER: partially miscible
COEFFICIENT OF OIL/WATER DISTRIBUTION: N.E.

SPECIFIC GRAVITY: N.E.
MELTING POINT: 1350°C
EVAPORATION RATE: N.E.
ODOR THRESHOLD: N.E.
APPEARANCE AND ODOR: white paste with sweet odor

SECTION 4 - FIRE AND EXPLOSION DATA

FLASH POINT: 160°C
FLAMMABLE LIMITS: N.A.
EXTINGUISHING MEDIA: Chemical foam, carbon dioxide and dry chemical.
SPECIAL FIRE FIGHTING PROCEDURES: Water can be used to cool fire-exposed container and protect personnel. Use of normal protective equipment is recommended.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None
HAZARDOUS COMBUSTION PRODUCTS: None

SECTION 5 - REACTIVITY DATA

STABILITY: Stable Unstable
POLYMERIZATION: Will Not Occur Will Occur
CONDITIONS TO AVOID: Avoid high heat and humidity.
INCOMPATIBILITY (Materials to Avoid): None
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None

SECTION 6 - HEALTH HAZARD DATA and FIRST AID INFORMATION - continued

	YES	NO	NE	NA	NTP	IARC	OSHA	OTHER
MUTAGENIC AFFECTS		X						
TERATOGENIC AFFECTS		X						
REPRODUCTIVE TOXIN		X						
CARCINOGENICITY		X						
SENSITIZER		X						

ROUTES OF ENTRY: Inhalation Skin Ingestion

HEALTH HAZARD (Acute and Chronic): CPP-ACP is derived from milk casein, it should not be consumed by patients with milk protein allergies or hydroxybenzoate allergies.

SIGNS AND SYMPTOMS OF OVEREXPOSURE: N.E.

CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N.E.

EMERGENCY FIRST AID PROCEDURES:

EYE CONTACT : Flush eyes with plenty of water, lifting lower and upper eyelids. If irritation persists, seek medical attention.

SKIN CONTACT : Remove with wet gauze or tissue. If irritation develops, seek medical attention.

INGESTION: Do not induce vomiting. Give plenty of water. If irritation develops, seek medical attention.

INHALATION: Supply fresh air; consult doctor in case of complaints.

SECTION 7 - PRECAUTIONS for SAFE HANDLING and USE

IN CASE OF RELEASE OR SPILL: Cover with absorbent material.

WASTE DISPOSAL METHOD: Dispose of in accordance with local, state and federal guidelines.

STORAGE, HANDLING, AND SPECIAL PRECAUTIONS: Store at room temperature. Keep container closed when not in use. Keep away from heat and high humidity.

SECTION 8 - CONTROL MEASURES

RESPIRATORY PROTECTION: None required.

VENTILATION: Local Exhaust - **Yes** Mechanical: Special: Other:

PROTECTIVE GLOVES: Disposable vinyl gloves recommended.

EYE PROTECTION: Safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N.A.

WORK/HYGIENIC PRACTICE: Observe good hygienic work practices.

SECTION 9 - PREPARATION INFORMATION

This data is supplied to comply with OSHA Hazard Communication Standard 29 CFR 1910,1200 and W.H.M.I.S. CPR.

DATE: 16 April 2007

REVIEWED: 28 February 2012

N.A. = NOT APPLICABLE
N.E. = NOT ESTABLISHED

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

NFPA

FIRE – 0 TOXICITY – 0 REACTIVITY – 0 SPECIAL –

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 03/29/2016

Version US-EN-Rev 1

Reviewed on 03/29/2016

1 Identification

- **Product identifier**
- **Trade name:** GC MI Paste Plus (Flavors: Melon [M], Mint [I], Strawberry [S], Tutti-Frutti [T], and Vanilla [V])
- **Application of the substance / the mixture** Auxiliary for dental technology
- **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**
The product is not classified according to the Globally Harmonized System (GHS).
- **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.
Do not use this material on patients with a proven or suspected milk protein allergy and/or with a sensitivity or allergy to benzoate preservatives.

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**
10 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

(Contd. on page 2)

US

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 03/29/2016

Version US-EN-Rev 1

Reviewed on 03/29/2016

Trade name: GC MI Paste Plus (Flavors: Melon [M], Mint [I], Strawberry [S], Tutti-Frutti [T], and Vanilla [V])

(Contd. of page 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:**

56-81-5	glycerol	10-20%
9004-32-4	sodium carboxyl methyl cellulose (CMC-Na)	1-5%
57-55-6	propylene glycol	1-5%
13463-67-7	titanium dioxide	1-5%

- **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).

4 First-aid measures

- **Description of first aid measures**
- **General information:**
 - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
 - No special measures required.
 - If symptoms persist consult doctor.
- **After inhalation:**
 - Supply fresh air; consult doctor in case of complaints.
 - Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
 - In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
 - Rinse with warm water.
 - If symptoms persist consult doctor.
- **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**
 - No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
 - No further relevant information available.

US

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 03/29/2016

Version US-EN-Rev 1

Reviewed on 03/29/2016

Trade name: GC MI Paste Plus (Flavors: Melon [M], Mint [I], Strawberry [S], Tutti-Frutti [T], and Vanilla [V])

(Contd. of page 2)

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:**
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.
- **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:**
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.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **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.

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 03/29/2016

Version US-EN-Rev 1

Reviewed on 03/29/2016

Trade name: GC MI Paste Plus (Flavors: Melon [M], Mint [I], Strawberry [S], Tutti-Frutti [T], and Vanilla [V])

(Contd. of page 3)

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 constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

56-81-5 glycerol

PEL	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV	TLV withdrawn-insufficient data human occup. exp.

57-55-6 propylene glycol

WEEL	Long-term value: 10 mg/m ³
------	---------------------------------------

- **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.
Wash hands before breaks and at the end of work.
Keep away from foodstuffs, beverages and feed.
- **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:	Pasty
Color:	White
Odor:	Product specific
Odor threshold:	Not determined.
- **pH-value at 20 °C (68 °F):** 7
- **Change in condition**

Melting point/Melting range:	Undetermined.
-------------------------------------	---------------

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 03/29/2016

Version US-EN-Rev 1

Reviewed on 03/29/2016

Trade name: GC MI Paste Plus (Flavors: Melon [M], Mint [I], Strawberry [S], Tutti-Frutti [T], and Vanilla [V])

(Contd. of page 4)

Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	Undetermined.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	0.9 Vol %
Upper:	0.0 Vol %
· Vapor pressure:	Not determined.
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	22.0 %
Water:	56.1 %
VOC content:	2.0 %
Solids content:	21.6 %
· 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.

US

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 03/29/2016

Version US-EN-Rev 1

Reviewed on 03/29/2016

Trade name: GC MI Paste Plus (Flavors: Melon [M], Mint [I], Strawberry [S], Tutti-Frutti [T], and Vanilla [V])

(Contd. of page 5)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:** No further relevant information available.

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

silicon dioxide	3
titanium dioxide	2B
sodium fluoride	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.

- **Repeated dose toxicity.** No further relevant information available.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

No further relevant information available.

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:** Not known to be hazardous to water.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

(Contd. on page 7)

US

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 03/29/2016

Version US-EN-Rev 1

Reviewed on 03/29/2016

Trade name: GC MI Paste Plus (Flavors: Melon [M], Mint [I], Strawberry [S], Tutti-Frutti [T], and Vanilla [V])

(Contd. of page 6)

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | Void |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | Void |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | Void |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · Class | Void |
| · Packing group | Void |
| · DOT, ADR, IMDG, IATA | Void |
| · Environmental hazards: | No |
| · 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):**

phosphoric acid

- **TSCA (Toxic Substances Control Act):**

glycerol

D-glucitol

sodium carboxyl methyl cellulose (CMC-Na)

(Contd. on page 8)

US

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 03/29/2016

Version US-EN-Rev 1

Reviewed on 03/29/2016

Trade name: GC MI Paste Plus (Flavors: Melon [M], Mint [I], Strawberry [S], Tutti-Frutti [T], and Vanilla [V])

(Contd. of page 7)

silicon dioxide

propylene glycol

titanium dioxide

xylitol

phosphoric acid

sodium fluoride

sodium saccharin

water, distilled

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

titanium dioxide

A4

sodium fluoride

A4

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

titanium dioxide

- **GHS label elements** Void

- **Hazard pictograms** Void

- **Signal word** Void

- **Hazard statements** Void

- **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** 03/29/2016 / -

- **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)

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

(Contd. on page 9)

-US

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 03/29/2016

Version US-EN-Rev 1

Reviewed on 03/29/2016

Trade name: GC MI Paste Plus (Flavors: Melon [M], Mint [I], Strawberry [S], Tutti-Frutti [T], and Vanilla [V])

(Contd. of page 8)

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
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit

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:

The information contained herein is believed to be true and accurate. However, all statements, recommendations or suggestions are made without any guarantee, representation or warranty, express or implied, on our part. Therefore, no warranty is made or to be implied that the information set out in this document is accurate or complete, and we accordingly exclude all liability in connection with the use of this information or the products referred to herein. All such risks are assumed by the purchaser/user. The information contained herein is also subject to change without notice. For the avoidance of doubt, however, nothing in this document excludes or limits our liability for death or personal injury caused by our negligence or for fraudulent misrepresentation.

US