SAFETY DATA SHEETS

This SDS packet was issued with item:

073263597

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

073263571



MS136505

TEMP ADVANTAGE - BASE MATERIAL SAFETY DATA SHEET

Page 1 of 2

SECTION 1 - SOURCE/IDENTITY/USE INFORMATION

MANUFACTURER

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: TEMP ADVANTAGE - Base

CHEMICAL NAME: N.A.

PRODUCT USE: **Dental Temporary Cement**

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	%
Levulinic Acid	123-76-2	N.E.	LD50=1850 mg/kg (oral rat)	0.5 - 2
Ethyl alcohol	64-17-5	TWA=1000ppm (ACGIH) STEL=1000ppm (ACGIH)	N.E.	0.5 – 1

SECTION 3 - PHYSI	CAL/CHEMICAL PROPERTIES	3		
BOILING POINT:	N.E.	SPECIFIC GRAVITY:	N.E.	
VAPOR PRESSURE:	N.E.	MELTING POINT:	N.E.	
VAPOR DENSITY:	N.E.	EVAPORATION RATE:	N.E.	
SOLUBILITY IN WATER	t: N.E.	ODOR THRESHOLD:	5ppm as Ethanol	
COEFFICIENT OF OIL	WATER DISTRIBUTION: N.E.	APPEARANCE AND ODOR:	Amber paste	

S

FLASH POINT: N.E. FLAMMABLE LIMITS: N.E.

EXTINGUISHING MEDIA: Dry chemical, Carbon dioxide

SPECIAL FIRE FIGHTING PROCEDURES: Wear self contained breathing apparatus with full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: N.E.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, Carboxylic Acids, smoke.

SECTION 5 - REACTIVITY DATA

STABILITY:	Stable 🗵	Unstable 🔲
POLYMERIZATION:	Will Not Occur 🛛	Will Occur

CONDITIONS TO AVOID: High heat, sparks, flame.

INCOMPATIBILITY (Materials to Avoid): Strong oxidizing, reducing agents, bases.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: N.E.



MS136505

TEMP ADVANTAGE - BASE

Page 2 of 2

SECTION 6 - HEALTH HAZARD DATA and FIRST AID INFORMATION

	YES	NO	NE	NA	NTP	IARC	OSHA	OTHER
MUTAGENIC AFFECTS		X				- ""	JOHA	OTHER
TERATOGENIC AFFECTS		X						
REPRODUCTIVE TOXIN		Y	-			 	+	
CARCINOGENICITY	_	Y	 		<u></u>		 	
SENSITIZER		V V			 _			

ROUTES OF ENTRY:

Inhalation 🖂

Skin 🛛

Ingestion 🛛

HEALTH HAZARD (Acute and Chronic): Hazards associated with Levulinic acid include, inhalation may result in spasms, inflammation of edema of the larynx, chemical pneumonitis and pulmonary edema.

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Irritation of mucous membranes, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting.

CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N.E.

EMERGENCY FIRST AID PROCEDURES:

INHALATION: Remove to fresh air. If breathing is difficult, seek medical attention.

EYE CONTACT: Flush eyes with water for 15 minutes. If irritation develops seek medical attention.

SKIN CONTACT: Wash skin with soap and water.

INGESTION: If excessive material is ingested. Seek medical attention.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

IN CASE OF RELEASE OR SPILL: Scrape up and discard into a suitable container. WASTE DISPOSAL METHOD: In accordance with local, state and federal regulations. STORAGE, HANDLING, AND SPECIAL PRECAUTIONS: Store in cool, dry place.

TOXICITY - 2

	IO CONTROL	AAC ACTIONS
SELLIU	N 8 - CONTROL	MEASURES

FIRE - 1

RESPIRATORY F	PROTECTION: Reduce exposure approved respirators for dusts	e in accordance with goo, mists, fumes.	d hygiene practice. If expo	osure limits are exceeded, use
VENTILATION:	Local Exhaust	Mechanical 🔲	Special 🔲	Other
EYE PROTECTIO OTHER PROTEC	OVES: Disposable vinyl glove ON: Safety glasses TIVE CLOTHING OR EQUIPMEN C PRACTICE: Observe good by	T: Eyewash station	eep away from clothing, n	nay stain.
SECTION 9 - P	REPARATION INFORMATIO	N		
	lied to comply with OSHA Hazara ary 2006		29 CFR 1910,1200 and W.H.	.M.I.S. CPR.
REVIEWED: 2	8 February 2012			
N.A. = NOT APP N.E. = NOT EST				
The information h	erein is given in good faith but n	o warranty expressed or imp	lied is made.	

NFPA

REACTIVITY -- 1

SPECIAL -



Printing date 03/19/2015

Version US-EN-Rev 1

Reviewed on 03/19/2015

1 Identification

- · Product identifier
- Trade name: GC TEMP ADVANTAGE (Base)
- 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. 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 GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

lauric acid

polyethylene glycol

(Contd. on page 2)

Version US-EN-Rev 1 Printing date 03/19/2015 Reviewed on 03/19/2015

Trade name: GC TEMP ADVANTAGE (Base)

(Contd. of page 1)

carboxylic acid**

· Hazard statements

Causes skin irritation.

Causes serious eve irritation.

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

May cause respiratory irritation.

Precautionary statements

[In case of inadequate ventilation] wear respiratory protection.

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 = 2 Fire = 1 Reactivity = 1

· HMIS-ratings (scale 0 - 4)



Health = 2 Fire = 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:				
143-07-7	lauric acid	20-25%		
65997-06-0	rosin, hydrogenated	10-20%		
25322-68-3	polyethylene glycol	1-5%		
56-95-1	chlorhexidine acetate	1-5%		
	carboxylic acid**	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).

(Contd. on page 3)

Printing date 03/19/2015 Version US-EN-Rev 1 Reviewed on 03/19/2015

Trade name: GC TEMP ADVANTAGE (Base)

(Contd. of page 2)

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.

Rinse with warm water.

If symptoms persist consult doctor.

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

No further relevant information available.

· 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.

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.

(Contd. on page 4)

Printing date 03/19/2015 Version US-EN-Rev 1 Reviewed on 03/19/2015

Trade name: GC TEMP ADVANTAGE (Base)

(Contd. of page 3)

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: 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.

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:

25322-68-3 polyethylene glycol

WEEL Long-term value: 10 mg/m³

(H); MW>200

- · 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.

(Contd. on page 5)

- US

Printing date 03/19/2015 Version US-EN-Rev 1 Reviewed on 03/19/2015

Trade name: GC TEMP ADVANTAGE (Base)

· Penetration time of glove material

(Contd. of page 4)

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

Information on basic physical and	chemical properties
General Information	
Appearance:	Dock
Form: Color:	Pasty Amber colored
Odor:	Characteristic
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
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 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/wat	ter): Not determined.
Viscosity:	
Dynamic at 20 °C (68 °F):	30000 mPas
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	0.9 %
Water:	0.7 %
VOC content:	0.9 %

(Contd. on page 6)

Printing date 03/19/2015 Version US-EN-Rev 1 Reviewed on 03/19/2015

Trade name: GC TEMP ADVANTAGE (Base)

(Contd. of page 5)

· 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: No further relevant information available.
- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · **Sensitization:** Sensitization possible through inhalation.
- · Experience with humans:

May cause damage to central nervous system.

May cause damage to liver. May cause damage to lungs.

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)

ethyl alcohol

1

· 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.

· Additional carcinogenic information:

The substance ethyl alcohol, also known as ethanol, is listed by IARC as a Group 1 carcinogen but in alcoholic beverage consumption. IARC Volume 100E (2012) "Personal Habits and Indoor Combustions" stated in its monograph "Consumption of Alcoholic Beverages" the following evaluation: "Ethanol in

(Contd. on page 7)

Printing date 03/19/2015 Version US-EN-Rev 1 Reviewed on 03/19/2015

Trade name: GC TEMP ADVANTAGE (Base)

(Contd. of page 6)

alcoholic beverages is carcinogenic to humans (Group 1)." GC products are not consumable alcoholic beverages.

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.
- · 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	
· Environmental hazards:		
· Marine pollutant:	No	
· Special precautions for user	Not applicable.	
 Transport in bulk according to Annex MARPOL73/78 and the IBC Code 	II of Not applicable.	
		(Contd. on page 8

03

Printing date 03/19/2015 Version US-EN-Rev 1 Reviewed on 03/19/2015

Trade name: GC TEMP ADVANTAGE (Base)

(Contd. of page 7)

· 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):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

rosin, oligomers

lauric acid

rosin, hydrogenated

fatty acid**

polyethylene glycol

carboxylic acid**

ethyl alcohol

water

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

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

ethyl alcohol A3

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





GHS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

lauric acid

polyethylene glycol

carboxylic acid**

Hazard statements

Causes skin irritation.

Causes serious eye irritation.

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

(Contd. on page 9)

Printing date 03/19/2015 Version US-EN-Rev 1 Reviewed on 03/19/2015

Trade name: GC TEMP ADVANTAGE (Base)

(Contd. of page 8)

May cause respiratory irritation.

· Precautionary statements

[In case of inadequate ventilation] wear respiratory protection.

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 03/19/2015 / -

· 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)

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

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

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.

(Contd. on page 10)

- 119

Printing date 03/19/2015 Version US-EN-Rev 1 Reviewed on 03/19/2015

Trade name: GC TEMP ADVANTAGE (Base)

(Contd. of page 9)

· 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.

- 115