SAFETY DATA SHEETS

This SDS packet was issued with item: 073262474

N/A



G-COAT PLUS MATERIAL SAFETY DATA SHEET

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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 Telephone No. 800-424-9300

COMMON NAME: G-COAT PLUS

CHEMICAL NAME: N.A.

PRODUCT USE: Coating agent for glass ionomer restorations.

The following information is provided with regard to the toxicity and hazards of the pure components present in this product. SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	C.A.S.	EXPOSURE LIMITS	LD50/LC50	%
Urethane methacrylate		N.E.	N.E.	30-40
Methylmethacrylate	80-62-6	OSHA (PEL): 100ppm TWA) ACGIH (TLV) 50 ppm (TWA)	LD50 (oral rat) 7872 mg/kg LC50 (inh rat) 78000 mg/m 3/4 H	40-50
Camphorquinone	465-29-2	N.E.	N.E.	<1
Silicon dioxide	7631-86-9	N.E.	N.E.	10-15
Phosphoric ester monomer		N.E	N.E	1-5

SECTION 3 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT:	100° C.	SPECIFIC GRAVITY (H2O = 1):	N.E.
VAPOR PRESSURE:	3.9 kPa @ 20° C	MELTING POINT:	N.E.
VAPOR DENSITY:	N.E.	EVAPORATION RATE:	N.E.
SOLUBILITY IN WATER:	Miscible.	ODOR THRESHOLD:	Ester-like
COEFFICIENT OF OIL/W	ATER DISTRIBUTION: N.E.	APPEARANCE AND ODOR:	Slight yellow color and slight odor

SECTION 4 - FIRE AND EXPLOSION DATA

 FLASH POINT: 10° C
 FLAMMABLE LIMITS: N.E.

 EXTINGUISHING MEDIA: Carbon dioxide, dry chemicals, chemical foam

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

 UNUSUAL FIRE AND EXPLOSION HAZARDS: N.E.

 HAZARDOUS COMBUSTION PRODUCTS: N.E.

Unstable

Will Occur

SECTION 5 - REACTIVITY DATA

STABILITY:StableUnPOLYMERIZATION:Will Not OccurWillCONDITIONS TO AVOID:Avoid heat and ignition sources.INCOMPATIBILITY (Materials to Avoid):N.E.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: N.E.

SECTION 6 - HEALTH HAZARD DATA and FIRST AID INFORMATION

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



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SECTION 6 - HEALT	H HAZARD DATA and FI	RST AID INFORMATI	ON - continued		
ROUTES OF ENTRY:	Inhalation	Skin 🔀	Ingestion 🛛		
cause irritation to dige SIGNS AND SYMPTOM	te and Chronic): Eyes, skin estive tract if swallowed S OF OVEREXPOSURE: N. LLY AGGRAVATED BY EXPO	E.	irritation. May ca	use sensitization by skin	contact. May
artificial respira INGESTION: Do SKIN: Wash wit	emove to fresh air. If breat	one or two glasses of v nutes, if irritation persi	vater and seek med st, get medical atte	lical attention.	thing, give
SECTION 7 - PRECA	UTIONS FOR SAFE HAN	DLING AND USE			
IN CASE OF RELEASE	OR SPILL : Cover with abs	orbent material, place in	n chemical waster	container.	
WASTE DISPOSAL ME	THOD: In accordance with	local, state and federal	regulations.		
	AND SPECIAL PRECAUTIO			out of direct sunlight and	heat. Keep
SECTION 8 - CONTR	ROL MEASURES				
	CTION: In case of brief exponential expo	posure or low pollution.	use respiratory fil	ter device. In case of long	ger exposure,
VENTILATION: Loc	al Exhaust: N.E.	Mechanical: N.E.	Special: N.I	E. Other: N.	E.
SECTION 9- PREPA	RATION INFORMATION				
This data is supplied to	comply with OSHA Hazard C	ommunication Standard 2	9 CFR 1910,1200 a	nd W.H.M.I.S. CPR	
DATE: <u>15 March 20</u> REVIEWED: <u>03 A</u>					
N.A. = NOT APPLICA N.E. = NOT ESTABLI					
The information herein	is given in good faith. No wa	rranty expressed or implie	ed is made.		
FIRE – 4	TOXICITY – 1	NFPA REAC	CTIVITY – 0	SPECIAL –	



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1 Identification

· Product identifier

· Trade name: G-COAT PLUS

• 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 sealing material
- · 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.

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.

• 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 Danger

• **Hazard-determining components of labeling:** methyl methacrylate (MMA) synergist**

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phosphoric acid ester monomer**	
Hazard statements	
Highly flammable liquid and vapor.	
Causes skin irritation.	
May cause an allergic skin reaction.	
May cause respiratory irritation.	
Precautionary statements	
Keep away from heat/sparks/open flames/hot surfaces No smoking	
Wear protective gloves / eye protection / face protection.	
Contaminated work clothing must not be allowed out of the workplace	
If on skin (or hair): Take off immediately all contaminated clothing. Rir	ise skin with water/shower.
Store locked up.	
Dispose of contents/container in accordance with local/regional/nation	ai/international regulations.
• Additional information:	
33.9 % of the mixture consists of component(s) of unknown toxicity.	
Classification system:	
· NFPA ratings (scale 0 - 4)	
Health = 1	
Fire = 3	
1 0 Reactivity = 0	
· HMIS-ratings (scale 0 - 4)	
HEALTH 1 Health = *1	
FIRE 3 Fire = 3	
Reactivity 0 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:	
80-62-6 methyl methacrylate (MMA)	25-50%
photoinitiator**	1-5%
phosphoric acid ester monomer**	1-5%
Additional information.	

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.

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If symptoms persist consult doctor.	(Contd. of page 2)
· 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:	
Rinse opened eye for several minutes under running water.	
If symptoms persist consult 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.	
E Eine finkting measures	
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:	
Nitrogen oxides (NOx) Carbon monoxide (CO)	
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 re	egulations
	syulations.
6 Accidental release measures	
• Personal precautions, protective equipment and emergency procedures	
Remove persons from danger area.	
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.	
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.	
Dispose of the collected material according to regulations.	
Reference to other sections	
See Section 7 for information on safe handling.	
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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.

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

· Con	nponents with limit values that require monitoring at the workplace:	
80-6	2-6 methyl methacrylate (MMA)	
PEL	Long-term value: 410 mg/m ³ , 100 ppm	
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	
· Add	itional information: The lists that were valid during the creation were used as basis.	
· Pers · Gen The Avoi Was Kee	osure controls sonal protective equipment: heral protective and hygienic measures: usual precautionary measures for handling chemicals should be followed. id contact with the eyes and skin. sh hands before breaks and at the end of work. p away from foodstuffs, beverages and feed. hediately remove all soiled and contaminated clothing.	(Contd. on page 5)

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- 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

Information on basic physical and General Information	chemical properties
Appearance:	
Form:	Liquid
Color:	Light yellow
Odor:	Ester-like
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)
Flash point:	10 °C (50 °F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	Undetermined.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air vapor mixtures are possible.
Explosion limits:	
Lower:	2.1 Vol %
Upper:	12.5 Vol %
Vapor pressure:	Not determined.
Density at 20 °C (68 °F):	1.1 g/cm³ (9.18 lbs/gal)
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Fully miscible.

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Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:		
Organic solvents:	0.0 %	
Solids content:	20.0 %	
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 Reacts with reducing agents. Reacts with alkali (lyes). Reacts with acids.

Reacts with oxidizing agents.

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: Reacts with alkali (lyes).
- · 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: No 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:

Irritant

· Carcinogenic categories

 IARC (International Agency for Research on Cancer) 	
methyl methacrylate (MMA)	3
silicon dioxide	3
butylated hydroxytoluene (BHT)	3
· NTP (National Toxicology Program)	
None of the ingredients is listed.	
· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	
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· 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 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.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

UN-Number DOT, ADR, IMDG, IATA	UN1247
	0.012.0
UN proper shipping name	
DOT	Methyl methacrylate monomer, stabilized solution
ADR	1247 Methyl methacrylate monomer, stabilized solution
IMDG, IATA	METHYL METHACRYLATE MONOMER, STABILIZE
- /	solution

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Transport hazard class(es)	
DOT	
RAMMABLE LOUD	
· Class	3 Flammable liquids
· Label	3
ADR	
3	
· Class · Label	3 (F1) Flammable liquids 3
· IMDG, IATA	
3	
· Class	3 Flammable liquids
Label	3
Packing group	
· DOT, ADR, IMDG, IATA	II
 Environmental hazards: Marine pollutant: 	Νο
• Special precautions for user	Warning: Flammable liquids
[·] Danger code (Kemler):	339
EMS Number:	F-E,S-D
Transport in bulk according to Annex	
MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Excepted quantities (EQ)	Code: E2
Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
·IMDG	
Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum pat quantity par inpar packaging: 20 ml
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
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• UN "Model Regulation":

UN1247, Methyl methacrylate monomer, stabilized solution, 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)

• TSCA (Toxic Substances Control Act):

methyl methacrylate (MMA)

silicon dioxide

photoinitiator**

synergist*

silane**

· Carcinogenic categories

 · EPA (Environmental Protection Agency)

 methyl methacrylate (MMA)
 E, NL

 · TLV (Threshold Limit Value established by ACGIH)
 A4

 methyl methacrylate (MMA)
 A4

 butylated hydroxytoluene (BHT)
 A4

 · NIOSH-Ca (National Institute for Occupational Safety and Health)
 A4

None of the ingredients is listed.

· GHS label elements

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

Hazard pictograms



· Signal word Danger

 Hazard-determining components of labeling: methyl methacrylate (MMA) synergist** phosphoric acid ester monomer**
 Hazard statements

Highly flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation.

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Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear protective gloves / eye protection / face protection. Contaminated work clothing must not be allowed out of the workplace. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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 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 Flam. Liq. 2: Flammable liquids, Hazard Category 2 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 Sources Manufacturers' MSDSs/SDSs OSHA (https://www.osha.gov/dts/chemicalsampling/toc/chmcas.html) TOXNET (http://toxnet.nlm.nih.gov/) ECHA (http://echa.europa.eu/) EnviChem (www.echemportal.org) · Notes: CAS Registry Number is a Registered Trademark of the American Chemical Society. CHEMTREC® is a registered service mark of the American Chemistry Council, Inc. * * Data compared to the previous version altered. This version replaces all previous versions.

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