SAFETY DATA SHEETS

This SDS packet was issued with item: 072040020

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

072040004 072040012



GC FUJIVEST INVESTMENTS – POWDER - ALL MATERIAL SAFETY DATA SHEET

Page 1 of 2

SECTION 1 - SOURCE/IDENTITY/USE INFORMATION

SUPPLIER

GC AMERICA INC. 3737 West 127th Street Alsip, IL 60803 Telephone: 708-597-0900 Hours: Mon - Fri 8:00 a.m. – 5:00 p.m. CST Transportation Emergency Telephone No. 800-424-9300

COMMON NAME: GC FUJIVEST POWDER, GC FUJIVEST II POWDER, GC FUJIVEST SUPER POWDER GC FUJIVEST LOW EXPANSION POWDER, FUJIVEST PLATINUM POWDER, FUJIVEST PREMIUM POWDER

CHEMICAL NAME: N.A.

PRODUCT USE: Dental phosphate bonded investment material-powder component.

The following information is provided with regard to the toxicity and hazards of the pure components present in this portion of the unmixed powder/liquid system.

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	C.A.S.	EXPOSURE LIMITS	LD50/LC50	%
Crystalline Silica	14464-46-1	TWA=0.05mg/m ³	N.E.	20-50
		(Respirable Dust)		
		(ACGIH)		
Silica, Crystalline - Quartz	14808-60-7	TWA=0.1mg/m ³	N.A.	30-50
		(Respirable Dust)		
		(ACGIH)		
Diammonium		N.E.	N.E.	5-10
Hydrogenorthophosphate				

SECTION 3 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT:	N.A.	SPECIFIC GRAVITY (H2O = 1):	N.E.
VAPOR PRESSURE:	N.A.	MELTING POINT:	N.A.
VAPOR DENSITY:	N.A.	EVAPORATION RATE:	N.A.
SOLUBILITY IN WATER:	: N.E.	ODOR THRESHOLD:	N.E.
COEFFICIENT OF OIL/W	ATER DISTRIBUTION: N.E.	APPEARANCE AND ODOR:	White powder, odorless

SECTION 4 - FIRE AND EXPLOSION DATA

 FLASH POINT: Not flammable
 FLAMMABLE LIMITS: N.A.

 EXTINGUISHING MEDIA: Material is not combustible. Use extinguishing media appropriate to the surrounding area.

 SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode.

 UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

HAZARDOUS COMBUSTION PRODUCTS: N.A.

SECTION 5 - REACTIVITY DATA

STABILITY:
POLYMERIZATION:

Stable 🖂 Will Not Occur 🖂 Unstable
Will Occur

 $\label{eq:conditions} \text{Conditions to avoid: } N.A.$

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing chemicals, strong bases, strong acids.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Contains Ammonium Phosphate which when heated to decomposition emits very toxic fumes of NO_x , NH3, and PO_x .



GC FUJIVEST INVESTMENTS – POWDER - ALL

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				Х	Group 2A		Calif. Prop. 65
SENSITIZER		Х						

ROUTES OF ENTRY: Inhalation 🛛 Skin 🖾 Ingestion 🖂

HEALTH HAZARD (Acute and Chronic): Contains crystalline silica, which is considered a hazard by inhalation. IARC has classified it as a probable carcinogenic for humans. Crystalline silica is also a known cause of silicosis, a non-cancerous lung disease. **CALIFORNIA PROP 65 WARNING:** This product contains crystalline silica, a chemical known to the State of California to cause cancer.

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Irritation and soreness in eyes, throat, and nose.

CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Individuals with pre-existing conditions of the lungs may have increased susceptibility to the toxicity of excessive exposures.

EMERGENCY FIRST AID PROCEDURES:

MS316040

INHALATION: If symptoms are experienced, remove victim to fresh air. If symptoms persist, obtain medical attention. *INGESTION:* Have victim rinse mouth with water. DO NOT induce vomiting. If vomiting occurs naturally, rinse mouth and give water. If symptoms persist, obtain medical advice.

SKIN: If irritation occurs, wash gently and thoroughly with lukewarm water and non-abrasive soap. If irritation persists, obtain medical advice.

EYES: If irritation occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 10 minutes. If irritation persists, obtain medical advice.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

IN CASE OF RELEASE OR SPILL: Scrape up and discard into clean, labeled containers.

WASTE DISPOSAL METHOD: Comply with Federal, State, and local regulations. If approved, may be transferred to a land disposal site.

STORAGE, HANDLING, AND SPECIAL PRECAUTIONS: Product should be handled so as to minimize the amount of airborne dust. Store in sealed containers in a cool, dry area away from incompatible materials. Protect containers from damage or breakage.

SECTION 8 - CONTROL MEASURES

RESPIRATORY PROTECTION: Where there is potential for inhalation exposure to product dust, mist, or aerosols in excess of exposure limits, wear NIOSH/MSHA approved respiratory protection.

Special: N.E.

Other: N.E.

VENTILATION: Local Exhaust: YES Mechanical: N.E.

PROTECTIVE GLOVES: Rubber gloves

EYE PROTECTION: Safety glasses or goggles

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N.A.

WORK/HYGIENIC PRACTICE: Observe good hygienic 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: <u>09 January 2006</u> **REVIEWED:** 28 February 2012

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

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

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		NFPA		
FIRE - 0	TOXICITY - 2	REACTIVITY - 0	SPECIAL -	



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Version US-EN-Rev 1

Reviewed on 04/16/2015

1 Identification

- · Product identifier
- · Trade name: GC Fujivest Premium (Powder)

 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 Auxiliary for 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.

Eye Irrit. 2A H319 Causes serious 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:** quartz (SiO2)
- Hazard statements
 Harmful if inhaled.
 Causes serious eye irritation.

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Trade name: GC Fujivest Premium (Powder)

_		(Contd. of page 1)
	tionary statements	
	reathing dust/fume/gas/mist/vapors/spray	
	ye protection / face protection.	
	es: Rinse cautiously with water for several minutes. Remove contact lenses	s, if present and easy
	continue rinsing.	
IF INHAL	LED: Remove person to fresh air and keep comfortable for breathing.	
	oison center/doctor if you feel unwell.	
	ritation persists: Get medical advice/attention.	
	nal information:	
	f the mixture consists of component(s) of unknown toxicity.	
	ication system:	
· NFPA ra	atings (scale 0 - 4)	
	Health = 2	
	Fire = 0	
	0 Reactivity = 0	
· HMIS-rat	atings (scale 0 - 4)	
HEALTH	*1	
	$\overset{*1}{=} \text{Health} = *1$	
FIRE		
REACTIVIT	Reactivity = 0	
· Other ha	azards	
••	s of PBT and vPvB assessment	
	ot applicable.	
	Not applicable.	

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous	components:	
14808-60-7	quartz (SiO2)	25-50%
14464-46-1	cristobalite	25-50%
1309-48-4	magnesium oxide	5-10%
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. 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.

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After skin contact: 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 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. · 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.

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Trade name: GC Fujivest Premium (Powder)

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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.
- **Information about protection against explosions and fires:** Dust can combine with air to form an explosive mixture.
- · 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.
- 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

· Com	ponents with limit values that require monitoring at the workplace:
1480	08-60-7 quartz (SiO2)
PEL	see Quartz listing TWA = (10 / (%SiO ₂) + 2)
REL	Long-term value: 0.05* mg/m³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m³ *as respirable fraction
1446	4-46-1 cristobalite
PEL	1/2 value from respirable dust formulae for Quartz
REL	Long-term value: 0.05* mg/m³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *as respirable fraction
1309	-48-4 magnesium oxide
PEL	Long-term value: 15* mg/m ³ fume; *total particulate
TLV	Long-term value: 10* mg/m³ *as inhalable fraction
· Addi	itional information: The lists that were valid during the creation were used as basis.
· Pers · Gen The	osure controls conal protective equipment: eral protective and hygienic measures: usual precautionary measures for handling chemicals should be followed. ot inhale dust / smoke / mist.
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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

General Information	
Appearance:	
Form:	Solid
Color: Odor:	White Undetermined.
Odor threshold:	Not determined.
pH-value at 20 °C (68 °F):	6.3
Change in condition	
Melting point/Melting range:	1710 °C (3110 °F)
Boiling point/Boiling range:	> 999 °C (> 1830 °F)
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not determined.
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 applicable.
Density:	Not determined.
Bulk density at 20 °C (68 °F):	840 kg/m³
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.

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		(Contd. of page §
 Solubility in / Miscibility with Water: 	Insoluble.	
· Partition coefficient (n-octand	ol/water): Not determined.	
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
· Solvent content:		
Organic solvents:	0.0 %	
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: 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: No irritant effect.
- on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

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

Irritant

· Carcinogenic categories

1
1
K
K
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Safety Data Sheet acc. to OSHA HCS 29 CFR 1910.1200

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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.

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	

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 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 	t II 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)

SARA (Superrund 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):		
quartz (SiO2)		
cristobalite		
ammonium dihydrogenorthophosphate		
magnesium oxide		
zircon		
trimagnesium bis(orthophosphate)		
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
 TLV (Threshold Limit Value established by ACGIH) 		
quartz (SiO2)	A2	

cristobalite magnesium oxide • NIOSH-Ca (National Institute for Occupational Safety and Health)

quartz (SiO2)

cristobalite

· GHS label elements

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

Hazard pictograms



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A2

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- · Signal word Warning
- Hazard-determining components of labeling: quartz (SiO2)
 Hazard statements

Harmful if inhaled. Causes serious eye irritation.

- Precautionary statements
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Wear eye protection / face protection.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a poison center/doctor if you feel unwell.
 If eye irritation persists: Get medical advice/attention.
- 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)
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
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
· 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:

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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