

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

072988012

**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).**

072124915 072987196 072987204 072987212 072987220 072987824 072987832 072987840 072987857 072987865  
072987873 072987881 072987899 072987907 072987915 072987964 072987972 072987980 072987998 072988004  
072988020 072988038 072988046 072988053 072988095 072988145 072988244 072988269 072988277 072988400

**INITIAL IQ - POWDERS**  
**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:** INITIAL IQ – POWDERS (MC, Zr.); ingots, correction powder, fluo crystals, frame modifier

**CHEMICAL NAME:** N.A.

**PRODUCT USE:** Dental Porcelain System

*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	%
Aluminum oxide	1344-28-1	PEL= 15, 5mg/m <sup>3</sup> Total dust, respirable fraction TLV=10mg/m <sup>3</sup>	N.E.	10-17
Cristobalite	14464-46-1	REL = 0.05 mg/m <sup>3</sup> Respirable dust TLV = 0.025 R mg/m <sup>3</sup>	N.E.	55-70

**SECTION 3 - PHYSICAL/CHEMICAL PROPERTIES**

**BOILING POINT:** >999°C (>1830°F)      **SPECIFIC GRAVITY:** N.E.  
**VAPOR PRESSURE:** N.E.      **MELTING POINT:** N.E.  
**VAPOR DENSITY:** N.E.      **EVAPORATION RATE:** N.A.  
**SOLUBILITY IN WATER:** not soluble      **ODOR THRESHOLD:** N.E.  
**COEFFICIENT OF OIL/WATER DISTRIBUTION:** N.E.      **APPEARANCE AND ODOR:** Odorless powder

**SECTION 4 - FIRE AND EXPLOSION DATA**

**FLASH POINT:** N.A.      **FLAMMABLE LIMITS:** N.A.  
**EXTINGUISHING MEDIA:** CO<sub>2</sub>, extinguishing powder, water spray, alcohol resistant foam.  
**SPECIAL FIRE FIGHTING PROCEDURES:** N.A.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** N.A.  
**HAZARDOUS COMBUSTION PRODUCTS:** N.A.

**SECTION 5 - REACTIVITY DATA**

**STABILITY:**      Stable       Unstable   
**POLYMERIZATION:**      Will Not Occur       Will Occur

**CONDITIONS TO AVOID:** N.A.  
**INCOMPATIBILITY (Materials to Avoid):** N.A.  
**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** N.A.

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

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

**SECTION 6 - HEALTH HAZARD DATA and FIRST AID INFORMATION - continued**ROUTES OF ENTRY: Inhalation  Skin  Ingestion 

HEALTH HAZARD (Acute and Chronic):

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

EMERGENCY FIRST AID PROCEDURES:

**INHALATION:** Supply fresh air. Consult physician if irritation develops.**EYE CONTACT:** Rinse eye with water for several minutes. If irritation persists, consult physician.**SKIN CONTACT:** Wash with soap and water. Consult physician if irritation develops.**INGESTION:** Consult physician if irritation develops.**SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE****IN CASE OF RELEASE OR SPILL:** Absorb with inert material, scrape up and discard.**WASTE DISPOSAL METHOD:** Dispose of material in accordance with local, state and federal regulations.**STORAGE, HANDLING, AND SPECIAL PRECAUTIONS:** Product should be handled so as to minimize the amount of airborne dust. Store in sealed containers in cool, dry area.**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.**VENTILATION:** Local Exhaust Yes Mechanical: N.E. Special: N.E. Other: N.E.**PROTECTIVE GLOVES:** Disposable vinyl gloves recommended.**EYE PROTECTION:** Safety glasses recommended.**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:** 19 June 2007

N.A. = NOT APPLICABLE

N.E. = NOT ESTABLISHED

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

FIRE - 0

TOXICITY - 0

NFPA

REACTIVITY - 0

SPECIAL -

# Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/19/2016

Version US-EN-Rev 1

Reviewed on 02/19/2016

## 1 Identification

- **Product identifier**
- **Trade name:** GC Initial™ AL, LF, MC, MC CST, Ti, and Zr-FS Powders
- **Application of the substance / the mixture** 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**  
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.
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**  


Health = 0  
Fire = 0  
Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**  

HEALTH	0
FIRE	0
REACTIVITY	0

Health = 0  
Fire = 0  
Reactivity = 0
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 2)

US

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/19/2016

Version US-EN-Rev 1

Reviewed on 02/19/2016

**Trade name:** GC Initial™ AL, LF, MC, MC CST, Ti, and Zr-FS Powders

· **vPvB:** Not applicable.

(Contd. of page 1)

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **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:**  
No special measures required.  
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:**  
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.

### 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.

(Contd. on page 3)

US

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/19/2016

Version US-EN-Rev 1

Reviewed on 02/19/2016

**Trade name:** GC Initial™ AL, LF, MC, MC CST, Ti, and Zr-FS Powders

(Contd. of page 2)

- **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.

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.

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.

Prevent formation of dust.

Any deposit of dust which cannot be avoided must be regularly removed.

- **Information about protection against explosions and fires:**

Dust can combine with air to form an explosive mixture.

- **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.

- **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:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **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.

Do not inhale dust / smoke / mist.

(Contd. on page 4)

US

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/19/2016

Version US-EN-Rev 1

Reviewed on 02/19/2016

**Trade name:** GC Initial™ AL, LF, MC, MC CST, Ti, and Zr-FS Powders

(Contd. of page 3)

Wash hands before breaks and at the end of work.

· **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:** Solid

**Color:** According to product specification

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 2980 °C (5396 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **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:** Not determined.

**Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapor density** Not applicable.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

**Water:** Insoluble.

· **Partition coefficient (n-octanol/water):** Not determined.

(Contd. on page 5)

US

# Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/19/2016

Version US-EN-Rev 1

Reviewed on 02/19/2016

**Trade name:** GC Initial™ AL, LF, MC, MC CST, Ti, and Zr-FS Powders

(Contd. of page 4)

· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Solids content:</b>	100.0 %
· <b>Other information</b>	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:** 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)**

None of the ingredients is listed.

- **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.

(Contd. on page 6)

US



# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/19/2016

Version US-EN-Rev 1

Reviewed on 02/19/2016

**Trade name:** GC Initial™ AL, LF, MC, MC CST, Ti, and Zr-FS Powders

(Contd. of page 5)

- **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:**  
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:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |                                       |                 |
|---------------------------------------|-----------------|
| · <b>UN-Number</b>                    |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>    | Void            |
| · <b>UN proper shipping name</b>      |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>    | Void            |
| · <b>Transport hazard class(es)</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>    |                 |
| · <b>Class</b>                        | Void            |
| · <b>Packing group</b>                |                 |
| · <b>DOT, ADR, IMDG, IATA</b>         | Void            |
| · <b>Environmental hazards:</b>       |                 |
| · <b>Marine pollutant:</b>            | No              |
| · <b>Special precautions for user</b> | Not applicable. |

(Contd. on page 7)

US

# Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/19/2016

Version US-EN-Rev 1

Reviewed on 02/19/2016

**Trade name:** GC Initial™ AL, LF, MC, MC CST, Ti, and Zr-FS Powders

(Contd. of page 6)

- |  |                 |
|--|-----------------|
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| <b>· UN "Model Regulation":</b>  | Void            |

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act)

<b>· Section 355 (extremely hazardous substances):</b>
--

None of the ingredients is listed.
------------------------------------

<b>· Section 313 (Specific toxic chemical listings):</b>
--

None of the ingredients is listed.
------------------------------------

<b>· TSCA (Toxic Substances Control Act):</b>
---

glass, oxide, chemicals
-------------------------

- Carcinogenic categories

<b>· EPA (Environmental Protection Agency)</b>
--

None of the ingredients is listed.
------------------------------------

<b>· TLV (Threshold Limit Value established by ACGIH)</b>
---

None of the ingredients is listed.
------------------------------------

<b>· NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
---

None of the ingredients is listed.
------------------------------------

- 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 02/19/2016 / -

- 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

(Contd. on page 8)

US

# Safety Data Sheet

## acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/19/2016

Version US-EN-Rev 1

Reviewed on 02/19/2016

**Trade name:** GC Initial™ AL, LF, MC, MC CST, Ti, and Zr-FS Powders

(Contd. of page 7)

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  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety & Health  
 TLV: Threshold Limit Value  
 PEL: Permissible Exposure Limit  
 REL: Recommended 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](http://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