

SAFETY DATA SHEETS

This SDS packet was issued with item:

072052793

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).

072052561 072052629 072052652 072052660 072052702 072052710 072052728 072052736 072052744 072052777

072052785 072052801 072052819

COE FLEX (LEAD FREE) - CATALYST
MATERIAL SAFETY DATA SHEET**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 a.m.-5:00 p.m. C.S.T.
Transportation Emergency No. 800-424-9300

COMMON NAME: COE FLEX (Lead Free) CATALYST**CHEMICAL NAME:** N. A.**PRODUCT USE:** Dental Impression Material

The following information is provided with regard to the toxicity and hazards of the pure components present in this portion of the unmixed two-paste system.

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT	C.A.S.	EXPOSURE LIMITS	LD50/LC50	%
Cupric Hydroxide	20427-59-2	TWA=1mg/m ³ (as dust) (ACGIH)	LD50>1g/kg LC50>2mg/L	10-30
Titanium Dioxide	13463-67-7	TWA=10mg/m ³ (ACGIH)	N.E.	10-35
Silicon Dioxide	112926-00-8	TWA=10mg/m ³ (ACGIH)	N.E.	1-5
Chlorinated Fatty Acid Ester	68440-29-9	N.E.	N.E.	30-50

SECTION 3 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT: N.E. **SPECIFIC GRAVITY (H₂O = 1):** 1.8
VAPOR PRESSURE: N.E. **MELTING POINT:** N.E.
VAPOR DENSITY: N.E. **EVAPORATION RATE:** N.E.
SOLUBILITY IN WATER: N.E. **ODOR THRESHOLD:** N.E.
COEFFICIENT OF OIL/WATER DISTRIBUTION: N.E. **APPEARANCE AND ODOR:** Light blue paste

SECTION 4 - FIRE AND EXPLOSION DATA

FLASH POINT: Non flammable **FLAMMABLE LIMITS:** N.A.
EXTINGUISHING MEDIA: For surrounding fire use dry chemical, foam, carbon dioxide
SPECIAL FIRE FIGHTING PROCEDURES: As appropriate for surrounding fire.
UNUSUAL FIRE AND EXPLOSION HAZARDS: N.E.
HAZARDOUS COMBUSTION PRODUCTS: Hydrogen chloride gas, carbon dioxide

SECTION 5 - REACTIVITY DATA

STABILITY: Stable Unstable
POLYMERIZATION: Will Not Occur Will Occur

CONDITIONS TO AVOID: High heat**INCOMPATIBILITY (Materials to Avoid):** Strong oxidizing and reducing agents**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Hydrogen chloride, oxides of carbon



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						
SENSITIZER		X						

ROUTES OF ENTRY: Inhalation Skin Ingestion

HEALTH HAZARD (Acute and Chronic): Cupric Hydroxide may be corrosive to eye

SIGNS AND SYMPTOMS OF OVEREXPOSURE: N.A.

CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N.A.

EMERGENCY FIRST AID PROCEDURES:

INGESTION: Induce vomiting, seek medical attention.

SKIN: Wash with soap and water.

EYES: Flush with water for 15 minutes. If irritation develops seek medical attention.

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

IN CASE OF RELEASE OR SPILL: Scrape up and discard.

WASTE DISPOSAL METHOD: In accordance with local, state, federal regulations.

STORAGE, HANDLING, AND SPECIAL PRECAUTIONS: Store in a cool, dry place

SECTION 8 - CONTROL MEASURES

RESPIRATORY PROTECTION: Reduce exposure in accordance with good hygiene practice. If exposure limits are exceeded, use MSHA-NIOSH approved respirators for dusts, mists, fumes.

VENTILATION: Local Exhaust: N.A. Mechanical: N.A. Special: N.A. Other: N.A.

PROTECTIVE GLOVES: Disposable vinyl gloves recommended.

EYE PROTECTION: Safety glasses

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N.A.

WORK/HYGIENIC PRACTICE: N.A.

SECTION 9- PREPARATION INFORMATION

This data is supplied to comply with OSHA Hazard Communication Standard 29 CFR1910,1200 and W.H.M.I.S. CPR

DATE: 09 January 2006

REVIEWED: 21 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.

FIRE 1 TOXICITY 1 NFPA REACTIVITY 1 SPECIAL COR/OXY

Safety Data Sheet

acc. to OSHA HCS 29 CFR 1910.1200

Printing date 02/24/2015

Version US-EN-Rev 1

Reviewed on 02/21/2015

1 Identification

- **Product identifier**
- **Trade name:** COE-FLEX (Lead-Free Catalyst, Type/Set: Regular/Fast, Heavy/Regular, Injection/Regular, and Regular/Regular)
- **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 impression 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**

STOT SE 1	H370-H335	Causes damage to organs. May cause respiratory irritation.
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure.
Eye Dam. 1	H318	Causes serious eye damage.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Irrit. 2	H315	Causes skin 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**



GHS05 GHS07 GHS08 GHS09

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acc. to OSHA HCS 29 CFR 1910.1200


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Trade name: COE-FLEX (Lead-Free Catalyst, Type/Set: Regular/Fast, Heavy/Regular, Injection/Regular, and Regular/Regular)

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- **Signal word** Danger
 - **Hazard-determining components of labeling:**
copper(II) hydroxide
titanium dioxide
 - **Hazard statements**
Harmful if inhaled.
Causes skin irritation.
Causes serious eye damage.
Causes damage to organs. May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.
 - **Precautionary statements**
Do not breathe 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.
Immediately call a poison center/doctor.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
 - **Classification system:**
 - **NFPA ratings (scale 0 - 4)**
- 

Health = 1
Fire = 1
Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**
- | | | |
|------------|---|----------------|
| HEALTH | 1 | Health = 1 |
| FIRE | 1 | Fire = 1 |
| 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:**

	chlorinated fatty acid ester**	25-50%
20427-59-2	copper(II) hydroxide	20-25%

· **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).

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Trade name: COE-FLEX (Lead-Free Catalyst, Type/Set: Regular/Fast, Heavy/Regular, Injection/Regular, and Regular/Regular)

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4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
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.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Seek medical treatment.
- **After eye contact:**
Protect unharmed eye.
Rinse opened eye for several minutes under running water.
If symptoms persist consult doctor.
Call a doctor immediately.
- **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**
In case of fire, the following can be released:
Carbon monoxide (CO)
Hydrogen sulfide
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 regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Remove persons from danger area.

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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:**

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.

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:** 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**

· **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.

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.

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- **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:	Light blue
Odor:	Odorless
Odor threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· Flash point: > 221 °C (> 430 °F)

· 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 at 20 °C (68 °F): 1.8 g/cm³ (15.021 lbs/gal)

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Insoluble.

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

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· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	58.0 %
· 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:**
Reacts with strong oxidizing agents.
Reacts with strong acids.
- **Hazardous decomposition products:** Hydrogen chloride (HCl)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

chlorinated fatty acid ester**

Oral	LD50	2000 mg/kg (rat (f+m))
Dermal	LD50	2000 mg/kg (rat (f+m))

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Experience with humans:**
May cause damage to blood.
May cause damage to kidneys.
May cause damage to liver.
May cause damage to skin.
May cause damage to respiratory system.
May cause damage to brain.
May cause damage to digestive system.
May cause damage to eyes.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive

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Irritant

- **Carcinogenic categories**

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

titanium dioxide	2B
silicon dioxide, amorphous	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.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

chlorinated fatty acid ester**

EC50/48h	100 mg/l (daphnia magna)
LC50/96h	32 mg/L (fish)

- **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.

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- **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 II of MARPOL73/78 and the IBC Code | 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)**

- **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

- **Section 313 (Specific toxic chemical listings):**

copper(II) hydroxide

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

chlorinated fatty acid ester**

titanium dioxide

copper(II) hydroxide

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

titanium dioxide

A4

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

titanium dioxide

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- **GHS label elements**

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

- **Hazard pictograms**



GHS05 GHS07 GHS08 GHS09

- **Signal word** Danger

- **Hazard-determining components of labeling:**

copper(II) hydroxide

titanium dioxide

- **Hazard statements**

Harmful if inhaled.

Causes skin irritation.

Causes serious eye damage.

Causes damage to organs. May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

Toxic to aquatic life with long lasting effects.

- **Precautionary statements**

Do not breathe 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.

Immediately call a poison center/doctor.

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 MSDS:** Regulatory Affairs

- **Contact:**

Regulatory Affairs

Telephone No. +1 (708) 597-0900

sds@gcamerica.com

- **Date of preparation / last revision** 02/24/2015 / -

- **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)

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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
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

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:

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- * **Data compared to the previous version altered.** This version replaces all previous versions.

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