SAFETY DATA SHEETS

This SDS packet was issued with item:

072067130

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

072067031 072067056 072067098 072067148

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).

072067023



column to HER, Schedule

Printing date 03/13/2018

Version CA-EN-Rev 1

Reviewed on 01/09/2018

- **1** Identification
- · Product identifier
- · Trade name: NATURE-CRYL SUPER HI IMPACT (Liquid)
- · 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 identification

· Classification of the substance or mixture

Flammable Liquids - Category 2

Skin Irritation - Category 2

Skin Sensitizer - Category 1

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure -Category 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) dimethacrylate**
- Hazard statements Highly flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction.

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May cause respiratory irritation. · Precautionary statements Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. · Classification system: • NFPA ratings (scale 0 - 4) Health = 2Fire = 3Reactivity = 2 · HMIS-ratings (scale 0 - 4) HEALTH 2 Health = 23 Fire = 3FIRE Reactivity = 2 REACTIVITY 2 **3** Composition/Information on ingredients

Chemical characterization: Mixtures

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

· Dangerous components:

CAS: 80-62-6 methyl methacrylate (MMA)	60 - 100% w/w
dimethacrylate**	1 - 5% w/w

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.

In case of irregular breathing or respiratory arrest provide artificial respiration. 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. 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 eve. Rinse opened eye for several minutes under running water.

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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.

5 Firefighting 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: Carbon monoxide and 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. 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.

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.
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.

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SUPER HI IMPACT (Liquid) **Trade name: NATURE-CRYL**

Information about protection against explosions and fires: Keep ionition sources away - Do not smoke.
Protect from heat. Protect against electrostatic charges. Do not spray on a naked flame or any incandescent material.
· Conditions for safe storage, including any incompatibilities · 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 neat 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 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 hards before breaks and at the end of work. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.
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.

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•	Penetration	time	of	glove	material
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The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Manufacturing sites:

Wear safety glasses with side shields (or goggles). Distribution, Workplace, and Household Settings:

No special protective equipment required

9 Physical and chemical proper	ties
 Information on basic physical and cl General Information Appearance: Form: Color: Odor: Odor: 	Liquid Colorless Methacrylic Not determined.
· pH-value:	Not determined.
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	Undetermined. 99 ℃
· Flash point:	11 ℃
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	Undetermined.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not self-igniting.
 Danger of explosion: 	Heating may cause an explosion. Product is not explosive. However, formation of explosive air/ vapor mixtures are possible.
[·] Explosion limits: Lower: Upper:	2.1 Vol % 12.5 Vol %
· Vapor pressure:	Not determined.
 Density: Relative density Vapor density Evaporation rate 	Not determined. Not determined. Not determined. Not determined.
Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water): Not determined.
 Viscosity: Dynamic: Kinematic: 	Not determined. Not determined.
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· Other information

No further relevant information available.

10 Stability and reactivity

- · Reactivity Danger of polymerization.
- · Chemical stability Stable at ambient temperature.
- **Thermal decomposition** / **conditions to be avoided:** No decomposition if used according to specifications.
- Possibility of hazardous reactions
 Spontaneous polymerization can be caused in unstabilized product e.g. by ambient heat.
 Danger of receptacles bursting because of high vapor pressure if heated.
 Exothermic polymerization.
 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. • Incompatible materials:

· Incompatible materials:

Reacts with peroxides and other radical forming substances.

- Reacts with amines.
- Reacts with heavy metals.
- 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 inhalation. 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)
 NTP (National Toxicology Program)
 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 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.

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· Repeated dose toxicity. No further relevant information available.

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 CMR effects (carcinogenity, 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: 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

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

UN-Number DOT, TDG, IMDG, IATA	UN1247
UN proper shipping name	
DOT	Methyl methacrylate monomer, stabilized
TDG	1247 Methyl methacrylate monomer, stabilized
IMDG, IATA	METHYL METHACRYLATE MONOMER, STABILIZED
Class	3 Flammable liquids
Label	3

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• TDG (Transport dangerous goods):	
· Class · Label	3 (F1) Flammable liquids 3
· IMDG, IATA	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, TDG, IMDG, IATA	II
· Environmental hazards: · Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler): · EMS Number:	339 F-E,S-D
· Stowage Category	B
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex	
MARPOL73/78 and the IBC Code	Not applicable.
 Transport/Additional information: 	
· TDG	
· Excepted quantities (EQ)	Code: E2 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 paakaging: 20 ml
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1247 METHYL METHACRYLATE MONOME
	STABILIZED, 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 ingredients is listed.

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methyl methacrylate (MMA)

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Trade name: NATURE-CRYL SUPER HI IMPACT (Liquid)

· Section 313 (Specific toxic chemical listings):

· TSCA (Toxic Substances Control Act):

dimethacrylate** UV-light absorber** · Canadian substance listings: · Canadian Domestic Substances List (DSL) All ingredients are listed. Canadian Ingredient Disclosure list (limit 0.1%) None of the ingredients is listed. Canadian Ingredient Disclosure list (limit 1%) methyl methacrylate (MMA) · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). Hazard pictograms GHS02 GHS07 · Signal word Danger · Hazard-determining components of labeling: methyl methacrylate (MMA) dimethacrylate* · Hazard statements Highly flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation. · Precautionary statements Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eve protection/face protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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 03/13/2018 / -(Contd. on page 10)

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(Contd. of page 9) 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) LEL: Lower Explosive Limit UEL: Upper Explosive Limit IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association 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 · 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. 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

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