

Safety Data Sheet

Form No. A210

Date Prepared: 5/5/2014

SECTION 1 : Identification of the substance/preparation and of the company / undertaking**(a) GHS product identifier**

Garreco Axcent Liquid Monomer Heat Cure

(e) Emergency phone number

CHEMTREC 1-800-424-9300

(b) Other means of identification

NA

(c) Recommended use of the chemical and restrictions on use

For professional dental applications.

(d) Supplier's details

Garreco, LLC
 430 Hiram Road
 Heber Springs, AR 72543
 Phone: 1-800-334-1443

SECTION 2: Hazards identification**(a) GHS classification of the substance/mixture****Substance Name**

1. Methacrylate Monomer
2. Ethylene Glycol Dimethacrylate
3. Inhibitor

(b) Label Elements**Hazard Statements**

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

Precautionary statements**Prevention**

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

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof equipment.

Use non-sparking tools.

Take action to prevent static discharges.

Wear protective gloves/protective clothing/eye protection/face protection

Avoid breathing fumes.

Use only outdoors or in a well-ventilated area.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water. If skin irritation or rash occurs: Get medical attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor if you feel unwell.

Storage

Store in a well-ventilated place. Keep cool. Keep container tightly closed

Store locked up.

Disposal

Dispose of contents in accordance with local/regional/national/international regulations.

Hazard Symbol(s)

Flame

Exclamation Mark

Signal Word(s)

Danger

(c) Other hazards which do not result in classification

ND

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SECTION 3: Composition/information on ingredients**(a) Chemical(s) Identity:****(b) Common Name:**

Methyl Methacrylate Monomer
Ethylene Glycol Dimethacrylate
Inhibitor

(c) CAS No.

80-62-6
97-90-5
NA

Mixture:**Concentration (Percentage)**

60.0-100.0
0.0-20.0
<1%

SECTION 4: First-aid measures**(a) Description of first aid measures:**

IF ON SKIN (or hair): If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the effected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.

IF INHALED: Remove to fresh air. Seek immediate medical attention.

IF SWALLOWED: If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed. Get medical attention immediately.

IF IN EYES: If product gets in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.

(b) Most important symptoms and effects, both acute and delayed:

ON SKIN: May cause skin irritation and sensitization.

IN EYES: Liquid and vapors can cause moderate irritation. Symptoms may include tears, blurred vision and redness.

INHALATION: High concentration is irritating to the respiratory tract and may cause dizziness, headache and anesthetic effects.

INGESTION: Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

(c) Indication of any immediate medical attention and special treatment needed:

INHALATION: Dizziness, headache and anesthetic effects.

INGESTION: Burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

SECTION 5: Fire-fighting measures**(a) Suitable extinguishing media:**

Chemical foam, carbon dioxide, dry chemical.

(b) Special hazards arising from the chemical or mixture:

High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerizing reaction generating heat/pressure. Closed containers may rupture or explode during a runaway polymerization. Use a water spray or fog to reduce or direct vapors. Water may not be effective in actually extinguishing a fire involving this product.

(c) Special protective equipment and precautions for fire-fighters:

This product is a flammable liquid. When involved in a fire, this product may ignite readily and decompose to produce carbon oxides. Vapors of this product are heavier than air and may travel to a source of ignition and flash back to a leaking or open container. Do not enter fire area without proper protection. Fight fire from a safe location. Heat/impurities may cause pressure to build and/or rupture closed containers, spreading fire, increasing risk of burns/injuries. Structural firefighters must wear SCBAs and full protective equipment.

SECTION 6: Accidental release measures**(a) Personal precautions, protective equipment and emergency procedures:**

Maximize ventilation (open doors and windows) and secure all sources of ignition. Place into appropriate closed container(s) for disposal in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse.

(b) Environmental precautions:

Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

(c) Methods and material for containment and cleaning up:

Before cleaning any spill or leak, individuals involved must wear appropriate Personal Protective Equipment (e.g., goggles, gloves). Deny entry to all unprotected individuals. Dike and contain spill with inert material (e.g. sand or earth). Use ONLY non-sparking tools for recovery and cleanup.

SECTION 7: Handling and storage**(a) Precautions for safe handling:**

Use local explosion-proof ventilation with a minimum capture velocity of 100 ft/min (30 m/min) at point of material release. Refer to Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Hygienist. Observe precautions found on label. Avoid contact with skin, eyes, clothing, and prolonged contact with the product. Use good personal hygiene and housekeeping. After use, wash hands and exposed skin with soap and water. Do not eat, drink or smoke while handling product.

(b) Conditions for safe storage, including any incompatibilities:

Store containers in a cool, dry location, away from direct sunlight, heat, sparks, flame, other light sources, or sources of intense heat. Keep container closed after each use. Ground and bond all containers when transferring. Check inhibitor levels periodically, add to the bulk material if needed. Maintain at a minimum, the original 2-inch headspace in the product container. Do not blanket or mix with oxygen-free gas as it renders the inhibitor ineffective. Incompatibilities include strong oxidizers, strong reducers, free radical initiators, inert gases, and oxygen scavengers. Material has strong solvent properties and can soften paint and rubber.

SECTION 8: Exposure controls/Personal protection**(a) Control parameters:**

Chemical	ACGIH		PEL TWA	OSHA PEL CEILING
	TLV	TLV-STEL		
Methyl Methacrylate Monomer	100ppm	NE	100 ppm	NE
Ethylene Glycol Dimethacrylate	NE	NE	NE	NE

(b) Appropriate Engineering Controls:

Use explosion-proof local exhaust at processing equipment, including buffers, sanders, grinders and polishers. High temperature processing equipment should be well ventilated.

(c) Individual protection measures:

RESPIRATORY: A respirator should be worn whenever workplace conditions warrant a respirators use. None required if airborne concentrations are maintained below the exposure limit listed in Section 2. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134 or other appropriate governing standard.

EYE PROTECTION: Depending on the use of this product, splash or safety glasses may be worn. If necessary, refer to U.S. OSHA 29 CFR §1910.133, or other appropriate governing standard. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

PROTECTIVE GLOVES: If anticipated that prolonged & repeated skin contact will occur during use of this product, wear chemical resistant gloves for routine industrial use. If necessary, refer to U.S. OSHA 29 CFR §1910.138, or other appropriate governing standards.

OTHER PROTECTIVE EQUIPMENT: No special body protection is required under typical circumstances of use and handling. If necessary, refer to appropriate governing standards. An eyewash station and a safety shower are recommended.

SECTION 9: Physical and chemical properties

(a) Appearance:	Clear liquid.
(b) Odor:	Acrid odor.
(c) Odor threshold:	ND
(d) pH:	NA
(e) Melting point / freezing point:	-48 °C
(f) Initial boiling point and boiling range:	101 °C, 214 °F
(g) Flash point	11.5 °C, 52.7 °F
(h) Evaporation rate (BuAc=1):	3.1
(i) Flammability:	Highly flammable.
(j) Upper/lower flammability or explosive limits:	12.5 / 2.12
(k) Vapor Pressure:	28 mm Hg @ 20 °C, 68 °F
(l) Vapor density:	3.5 @ 15.5 °C, 60 °F
(m) Relative density:	0.949 g/ml @ 15.5°C
(n) Solubility:	Moderate, 1.6 WT% @ 20 °C, 68 °F
(o) Partition coefficient: n-octanol/water:	ND
(p) Auto-ignition temperature:	421 °C, 790 °F
(q) Decomposition temperature:	ND
(r) Viscosity:	Like water.

SECTION 10: Stability and reactivity

(a) Reactivity:	Unstable/Reactive upon depletion of inhibitor and/or heat.
(b) Chemical stability:	Unstable/Reactive upon depletion of inhibitor and/or heat.
(c) Possibility of hazardous reactions:	Hazardous polymerization may occur.
(d) Conditions to avoid:	Avoid temperatures above 21 °C, 70 °F, localized heat sources (i.e., drum/band heaters), oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, and inert gas blanketing.
(f) Hazardous decomposition products:	Oxides of Carbon when burned.

SECTION 11: Toxicological information

There are extensive toxicological data available on the components of this product. An adequate representation of all these data is beyond the scope of this document.

Acute toxicity

Skin corrosion/irritation	NE
Serious Eye Damage / Irritation	NE
Respiratory or skin sensitization	Acute Dermal Rabbit LD50: >35,500 mg/kg.
Germ cell mutagenicity	NE
Carcinogenicity	NE
Reproductive toxicity	NE
STOT-single exposure	NE
STOT-repeated exposure	Nose, Liver, and Kidneys (long-term to high levels).
Aspiration Hazard	Inhalation Rat LC50: 7094 ppm/4H

(a) Exposure route: Inhalation, Skin, or Eyes.

(b) Symptoms related to the physical, chemical and toxicological characteristics:

Tears, blurred vision, and redness. May cause skin irritation and can cause skin sensitization. High concentration irritating to the respiratory tract and may cause dizziness, headache, and anesthetic effects. Can also cause irritation, burning sensation of the mouth, and throat/gastrointestinal tract and abdominal pain.

(c) Delayed and immediate effects and also chronic effects from short and long tem exposure:

Prolonged and/or repeated exposure of may lead to kidney, lung, liver, and heart damage. None of these effects are likely to occur in humans provided exposure is maintained at/below the occupational exposure limit. Unlikely to present a cancer hazard to humans.

(d) Numerical measures of toxicity:

Acute Dermal Rabbit LD50: >35,500 mg/kg.
Inhalation Rat LC50: 7094 ppm/4H
Oral Rat, LD50: 7900 mg/kg

SECTION 12: Ecological information

(a) Ecotoxicity:

Fathead Minnows, LC50: 130 mg/L, 96H.
Fish, LC50: >100mg/L.
Algae, EC50: 170mg/L, 96H.

(b) Persistence and degradability:

28 Day Biodegradation Study: Not readily biodegradable.
COD: 88% within 28 days.
Inherent Biodegradation: DOC Removal >95% within 28 days.

(c) Bioaccumulative potential

ND

(d) Mobility in soil:

High.

(e) Other adverse effects:

ND

SECTION 13: Disposal considerations

Product: Methyl Methacrylate

Recommendation

WASTE DISPOSAL METHOD: When discarded it is a hazardous waste by the EPA under RCRA. The reportable quantity (RQ) for Methyl Methacrylate is 1000 pounds (40 CFR Part 302). After addition of excess inhibitor, dispose waste material in accordance with Federal, State, and Local regulations.

DISPOSAL OF EMPTY CONTAINERS: Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards, due to residual flammable material, associated with empty containers. Dispose of all empty containers properly, in accordance with Federal, State, and Local regulations.

SECTION 14: Transport information

(a) UN Number

UN 1247

(b) UN Proper shipping name

Methyl Methyl methacrylate Monomer, Stabilized, Solution.

(c) Transport hazard class(es)

3

(d) Packing Group

II

(e) Environmental hazards

Not listed as a marine pollutant.

(f) Transport in bulk

US CFR 49 §173.242

(g) Other Information

Label as Flammable Liquid.

SECTION 15: Regulatory information

SARA Reporting Requirements:

There are reporting requirements for this product.

SARA Threshold Planning Quantity:

There are no specific Threshold Planning Quantities for the components of this product.

TSCA Inventory Status:

The components of this product are listed on the TSCA Inventory.

Other Federal Requirements:

This material is considered Hazardous by the OSHA Hazard Communication

Other Canadian Regulations:

The components of this product are listed on the DSL.

State Regulatory Information:

This product may contain components that are covered under specific state criteria.

SECTION 16: Other information**PREPARED BY:** Kristofer Mainar**GAR QMS SDS REFERENCE:** A153**HAZARDOUS MATERIAL IDENTIFICATION (HMIS) RATING:**

Health	2
Flammability	3
Reactivity	2
Other	NA

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION RATING:

Health	2
Flammability	3
Reactivity	2
Special Information	NA

REVISION NUMBER: 140505**CHANGES FROM PREVIOUS VERSION:**

INITIAL VERSION

ABBREVIATIONS

NA Not Applicable	LD Lethal Dose
ND Not Determined	TC Toxic Concentration
NE Not Established	TD Toxic Dose
ppm parts per million	BOD Biological Oxygen Demand
G Gallon	COD Chemical Oxygen Demand
mg Milligram	Lo Lowest
L Liter	ThOD Theoretical Oxygen Demand
gm Gram	TLm Threshold Limit
mol Mole	IC Inhibitory Concentration
kg Kilogram	DOC Dissolved Organic Carbon
μ Micro	H Hours
mm Millimeter	M Months
p Pico	D Days
Pa Pascals	Y Years
c cento	W Weeks
LC Lethal Concentration	NDSL Canadian Non-domestic Substance List
ACGIH American Conference of Governmental Industrial Hygienist	IARC International Agency for Research for Cancer
CPR Controlled Product's Regulation	NOEL No Observed Effect Level
DSL Canadian Domestic Substances List	NOAEL No Observed Adverse Effect Level
PEL Permissible Exposure Limit	OSHA Occupational Safety and Health Administration
TLV Threshold Limit Value	

THIS MATERIAL SAFETY DATA SHEET IS PREPARED IN COMPLIANCE WITH FEDERAL REGULATIONS (29 CFR 1910.1200) OF CHEMICALS AND THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING REVISION 5. ANY APPLICABLE STATE AND LOCAL REGULATIONS SHOULD BE CONSULTED. THE ABOVE INFORMATION MAY BE BASED IN PART ON INFORMATION PROVIDED BY COMPONENT SUPPLIERS AND IS BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OF THESE DATA, THE RESULTS TO BE OBTAINED FROM THE USE OF THE MATERIAL, OR THE HAZARDS CONNECTED WITH SUCH USE. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL AND WITH WHICH WE MAY BE UNFAMILIAR, AND SINCE DATA MADE AVAILABLE SUBSEQUENT TO THE DATE HEREOF MAY SUGGEST MODIFICATION OF THE INFORMATION, WE ASSUME NO RESPONSIBILITY FOR THE RESULT OF ITS USE. THIS INFORMATION AND MATERIAL IS FURNISHED ON THE CONDITION THAT THE PERSON RECEIVING IT SHALL MAKE HIS/HER OWN DETERMINATION AS TO THE SUITABILITY OF THE MATERIAL FOR HIS/HER PARTICULAR PURPOSE AND ON THE CONDITION THAT HE/SHE ASSUME THE RISK OF HIS/HER USE THEREOF.