Great Lakes™
DENTAL TECHNOLOGIES

SAFETY DATA SHEET

Effective Date 27-Oct-2021 **Version** 2

1. IDENTIFICATION

Product Identifier
Product Name GREAT LAKES DENTAL TECHNOLOGIES – BIOCRYL ICE MONOMER / BIOCRYL ICE KIT / BIOCRYL XR MONOMER / BIOCRYL XR KIT

Other means of identification
SDS# 040-53
UN/ID No UN1993
Product Code 047-001, 047-004, 047-006, 048-002

Recommended use of the chemical and restrictions on use
Recommended Use Fabrication of orthodontic appliances

Details of the supplier of the safety data sheet
Supplier Address Great Lakes Dental Technologies
200 Cooper Avenue
Tonawanda, NY, 14150

Emergency telephone number
Company Phone Number +1 716-871-1161
Emergency Telephone (INFOTRAC) 800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Flammable liquids	Category 2
Skin Corrosion / Irritation	Category 2
Skin Sensitization	Category 1
Specific Target Organ Toxicity - Single Exposure (Respiratory)	Category 3

Signal word Danger

Hazard statements
H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.



Appearance Clear or slightly tinted **Physical state** Liquid **Odor** Acrid

Precautionary Statements – Prevention
P210 Keep away from heat/sparks/open flames/ hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements – Response

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before use.
P370+P378 In case of fire: Use CO_2, for extinction.

Precautionary Statements – Storage

P235 Keep cool.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements – Disposal

P501 Dispose of contents/container in accordance with local regulation.

Hazardous component(s) for labeling Contains methyl methacrylate

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight - %	Trade Secret
Methyl Methacrylate	80-62-6	>95	*

*Specific chemical weight has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Inhalation Remove victim to fresh air. Keep at rest in a position comfortable for breathing. Seek immediate medical attention.

Eye contact Rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes. If irritation persists, call a physician immediately.

Ingestion If ingested, do not induce vomiting. Drink plenty of water or milk immediately. If vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately and provide an estimate of when and how much material was ingested. Seek immediate medical attention.

Skin Contact Wash with soap and water. If irritation, redness or swelling persists, call a physician immediately. Take off contaminated clothing and wash before reuse.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable: Chemical (alcohol-resistant) foam, dry chemical, or carbon dioxide
Unsuitable: Water spray or water stream may not be effective.

Specific hazards arising from the chemical

For bulk size >1L – 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. This product is flammable liquid. 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. Vapor forms an explosive mixture with air.

Hazardous Combustion Products

Acrid smoke-fumes/carbon monoxide/carbon dioxide and perhaps other toxic vapors may be released during a fire involving this product.

Special Fire Fighting Procedures

Use a water spray or fog to reduce or direct vapors, and keep containers cool. Water may not be effective in actually extinguishing a fire involving this product. Do not enter fire area without proper protection. Fight fire from a safe location. Structural firefighters must wear SCBAs

and full protective equipment. Heat/Impurities may cause pressure to build and/or rupture closed containers, spreading fire, increasing risk of burns/injuries.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus for firefighting if necessary. Do not enter area without proper protection. Fight fire from safe distance/protected location. Heat /impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Use water spray to cool unopened containers. Pressure relief system may plug with solids creating risk of overpressure.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions — Before cleaning any spill or leak, individuals must wear personal protective equipment as required. Remove any contaminated clothing and wash thoroughly before reuse.

Environmental precautions — ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent product from entering drains. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

Methods and material for containment and clean-up

Method for containment — Prevent further leakage or spillage if safe to do so. Dike and contain spill with inert material. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. DO NOT use combustible materials such as sawdust. May contaminate water supply.

Method for clean-up — 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.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling — Keep away from heat, sparks, and flame. Keep container close after each use. Avoid contact with skin, eyes and clothing. 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. Ground and bond all containers when transferring. Observe precautions found on the label.

Conditions for safe storage, including any incompatibilities

Storage Conditions — Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition. Protect from direct sunlight. Keep container closed to prevent water absorption and contamination. Methacrylate stored in bulk must be kept in contact with air (oxygen). Keep at a temperature not exceeding 30°C/86 °F.

Packaging materials — Keep in original container.

Incompatible materials — Strong oxidizing agents, strong reducing agents, free-radical generators, inert gases, oxygen scavengers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines
Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required. The following information is given as general guidance.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl Methacrylate 80-62-6	STEL: 100 ppm TWA: 50 ppm	TWA:100 ppm TWA: 410 mg/m^3	TWA: 100 ppm TWA: 410 mg/m^3

ACGIH = American Conference of Governmental Industrial Hygienists / OSHA = Occupational Safety and Health Administration
PEL = Permissible Exposure Levels / STEL – Short Term Exposure Limit / TLV – Threshold Limit Value / TWA = Time Weighted Average

Appropriate engineering controls

Engineering controls — For bulk size: Use local explosion-proof ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits.

Individual protection measures, such as personal protective equipment

Eye / face protection — Depending on the use of this product, safety glasses or goggles may be worn. If necessary, refer to US OSHA 29CFR SS1910.133, Canadian standards or the European Standard EN 166. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

Skin and body protection	If anticipated that prolonged and repeated skin contact will occur during use of this product, wear gloves for routine industrial use. If necessary, refer to US OSHA 29CFR SS1910.138 or the appropriate standards of Canada or the EC member states. Wear suitable protective clothing.
Respiratory protection	No special respiratory protection is required under typical circumstances of use or handling. If necessary, use only respiratory protection authorized per US OSHA requirement in 29 CFR SS 1910.134, or applicable US state regulations, or the appropriate standards of Canada, its provinces, or the EC member states. VENTILATION: Local exhaust at processing equipment.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Wash hands thoroughly before eating, drinking, or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	**Odor**	Acrid
Appearance	Liquid	**Odor threshold**	Not determined
Color	Clear or slightly tinted		

Property	**Values**	**Remarks / Method**
pH	Not determined	
Melting point / Freezing point	Not determined	
Boiling point / boiling range	101°C / 214° F	
Flash point	12°C / 54°F	
Evaporation rate	Not determined	
Flammability (solid, gas)	n/a (liquid)	
Flammability limits in air		
Upper flammability limit	Not applicable	
Lower flammability limit	Not applicable	
Vapor pressure	Not applicable	
Vapor density	Not applicable	
Specific gravity	0.94	Water = 1
Autoignition temperature	421°C / 790°F	

Other information

Density	0.94 g/mL

10. STABILITY AND REACTIVITY

Reactivity Unstable/Reactive upon depletion of inhibitor.

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions None under normal processing
Hazardous polymerization Hazardous polymerization may occur.

Incompatible materials
Strong oxidizing agents, strong reducing agents, free-radical initiators, inert gases, oxygen scavengers.
Material has strong solvent properties and can soften paint and rubber.

Hazardous decomposition products Carbon oxides

11. TOXICOLOGICAL INFORMATION

Mixture Toxicity Inhalation Toxicity: 4,632 mg/L
Component Toxicity No data available
Routes of Exposure – No data available
Target Organs – Eyes, Skin, Respiratory System

Inhalation	Harmful if inhaled.
Eye contact	Causes severe eye irritation.
Skin contact	Causes skin irritation. May be harmful in contact with skin.
Ingestion	May be harmful if swallowed.

Product Components Listed as Carcinogenic None

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae / aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methyl Methacrylate 80-62-6	170: 96 h Psuedokirchneriella subcapitata mg/L EC50	243-275: 96 h Pimephales promelas mg/L LC50 flow-through; 125.5-190.7: 96 h Pimephales promelas mg/L LC50 static; 170-206: 96 h Lepomis macrochirus mg/L LC50 flow-through; 153.9-341.8: 96 h Lepomis macrochirus mg/L LC50 static; 326.4-426.9 96 h Poecilia reticulata mg/L LC50 static; >79: 96 h Oncorhynchus mykiss mg/L LC50 flow-through; >79: 96 h Oncorhynchus mykiss mg/L LC50 static	-	69: 48 h Daphnia magna mg/L EC50

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Follow all local and national government regulations in disposing material or contaminated packaging.

For U.S. - Dispose of in accordance with federal, state and local regulations. When discarded, it is considered a hazardous waste by the EPA under RCRA. The reportable quantity for methyl methacrylate is 1000 lb. (40 CFR Part 302). Add excess inhibitor before disposing.

Contaminated Packaging

Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards due to residual material associated with empty containers. Dispose of all empty containers in accordance with local and national government regulations.

14. TRANSPORTATION INFORMATION

DOT

UN / ID No	UN1247
Proper shipping name	Methyl Methacrylate monomer, stabilized
Hazard Class	3
Packing Group	II
Reportable Quantity (RQ)	1000 lb. (methyl methacrylate)

IATA

UN / ID No	UN1247
Proper shipping name	Methyl Methacrylate monomer, stabilized
Hazard Class	3
Packing Group	II

IMDG

UN / ID No	UN1247
Proper shipping name	Methyl Methacrylate monomer, stabilized
Hazard Class	3
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

Methyl methacrylate 80-62-6

TSCA	Listed	United States Toxic Substances Control Act, Section 8(b) Inventory
DSL	Listed	Canadian Domestic Substances List
EINECS	Listed	European Inventory of Existing Chemical Substances

EU Regulations EC No. 1272/2008 (CLP) Classification, Labeling, Packaging
US Federal Regulations SARA 302 – Extremely hazardous substance - not listed
SARA 311 / 312 Hazard Categories Add: listed Methyl methacrylate 80-62-6
SARA 313 – Methyl Methacrylate 80-62-6

US State Regulations California Proposition 65 – Warning. This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin: None

US State Right-to-Know Regulations Not established

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability
	2	3	2
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**
	2	3	2

Effective Date 27-Oct-2021

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet