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Revision Date 31-May-2016

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Excel Formula™ Auto-Cure Orthodontic Material (Liquid)

Based on methyl methacrylate:

CAS-No. 80-62-6
EU Index No. 607-035-00-6
REACH No. 01-2119452498-28
EINECS-No. 201-297-1

Other Means of Identification

SDS # SGT-001

Recommended Use of the Chemical and Restrictions on Use

Recommended Use Dental / Denture application.
Uses Advised Against For Professional use only.

Details of the Supplier of the Safety Data Sheet

Supplier Address

St. George Technology, Inc.
P.O. Box 2849
Wilmington, North Carolina 28402-2849

Emergency Telephone Number

Company Phone Number 910-397-0781
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

Signal Word

Danger

Hazard Statements Causes

skin irritation Causes severe
eye irritation

May cause an allergic skin reaction

May cause respiratory irritation. May cause drowsiness or dizziness

Highly flammable liquid and vapor

**Appearance** Colorless or pink liquid**Physical State** Liquid**Odor** Characteristic**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Get medical attention if irritation occurs
 If skin irritation or rash occurs: Get medical advice/attention
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Harmful to aquatic life with long lasting effects
 Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Methyl Methacrylate Monomer	80-62-6	>90%
Ethylene Glycol Dimethacrylate	97-90-5	2.5-10%
N, N-Dimethyl-p-toluidine	99-97-8	<1%

Product contains a proprietary mixture of ingredients. *Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

4. FIRST AID MEASURES

First Aid Measures

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Seek medical attention if irritation develops.
Inhalation	Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
Ingestion	Rinse mouth. Do NOT induce vomiting. Seek medical advice.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms	Overexposure by inhalation may cause CNS depression- drowsiness, dizziness, confusion or loss of coordination. May cause skin and eye irritation. May cause allergic skin reaction. Will cause gastrointestinal tract irritation.
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Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians	Treat symptomatically. Can cause allergic response in susceptible or hypersensitive individuals upon repeated or prolonged exposure.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, Dry chemical, Carbon dioxide (CO₂).

Unsuitable Extinguishing Media Water jet.

Specific Hazards Arising from the Chemical

Vapors may travel to source of ignition and flash back.

Sensitivity to Static Discharge	Take precautionary measures against static discharge. Flammable mixtures of this product are readily ignited even by static discharge.
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Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Remove all sources of ignition. The wet contaminated surface may be slippery.
Environmental Precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). See Section 12 for additional ecological information.

Methods and Material for Containment and Cleaning Up

Methods for Containment	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite).
Methods for Cleaning Up	Use clean non-sparking tools to collect absorbed material. Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. For waste disposal, see section 13 of the SDS. Wash spill area with a mild detergent.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling	Handle in accordance with good industrial hygiene and safety practice. Wear appropriate personal protective equipment. Wash face, hands, and any exposed skin thoroughly after handling. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take precautionary measures against static discharges. Ground container and transfer equipment to eliminate static electric sparks. Use spark-proof tools and explosion-proof equipment. Avoid breathing vapors or mists. Contaminated work clothing should not be allowed out of the workplace. Use only in well-ventilated areas. Keep containers closed when not in use. Keep cool.
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Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store between 16°-26°C (69°-79°F). Store locked up. Protect from damp. Store away from heat and incompatible materials.
Incompatible Materials	Organic peroxides, Reducing agent, Metallic Redox systems, Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl Methacrylate Monomer	STEL: 100 ppm TWA: 50 ppm	TWA: 100 ppm TWA: 410 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 410 mg/m ³	IDLH: 1000 ppm TWA: 100 ppm TWA: 410 mg/m ³

Appropriate Engineering Controls

Engineering Controls	Good ventilation is required.
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Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection	Splash goggles or safety glasses.
Skin and Body Protection	Polyethylene / Nitrile gloves. Do not use cotton gloves. Polyethylene apron is recommended.
Respiratory Protection	Ensure adequate ventilation, especially in confined areas. Use NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Liquid	Odor	Characteristic
Appearance	Colorless or pink liquid	Odor Threshold	Not determined
Color	Colorless or pink		
Property	Values	Remarks • Method	
pH	Not determined		
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	100 °C / 212 °F	(at 760 mm Hg)	
Flash Point	8 °C / 46.4 °F	Tag Closed Cup	
Evaporation Rate	+1	(butyl acetate = 1)	
Flammability (Solid, Gas)	Not determined		
Upper Flammability Limits	12%		
Lower Flammability Limit	1.5%		
Vapor Pressure	47hPa @ 20°C		
Vapor Density	+1	(Air=1)	
Specific Gravity	-1	(1=Water)	
Water Solubility	Slightly soluble		
Solubility in Other Solvents	Not determined		
Partition Coefficient	Not determined		
Autoignition Temperature	430°C / 806°F		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Dynamic Viscosity	Not determined		
Explosive Properties	Not determined		
Oxidizing Properties	Not determined		

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Prolonged exposure to elevated temperatures which can cause premature polymerization and release methyl methacrylate vapors.

Hazardous Polymerization Hazardous polymerization may occur.

Conditions to Avoid

Temperatures >35°C (95°).

Incompatible Materials

Organic peroxides, Reducing agent, Metallic Redox systems, Strong oxidizing agents.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact Causes serious eye irritation.

Skin Contact Causes skin irritation. May cause allergic skin reaction.

Inhalation May cause irritation to the mucous membranes and upper respiratory tract.

Ingestion

Ingestion may cause irritation to mucous membranes.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl Methacrylate Monomer	= 7872 mg/kg (Rat)	> 5 g/kg (Rabbit)	= 4632 ppm (Rat) 4 h = 400 ppm (Rat) 1 h

Information on Physical, Chemical and Toxicological Effects**Symptoms**

Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure**Sensitization**

May cause an allergic skin reaction.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Methyl Methacrylate Monomer		Group 3		

*IARC (International Agency for Research on Cancer)**Group 3 IARC components are "not classifiable as human carcinogens"***STOT - Single Exposure**

May cause respiratory irritation. May cause drowsiness or dizziness.

Numerical Measures of Toxicity

Not determined

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methyl Methacrylate Monomer	170: 96 h Pseudokirchneriella 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 79: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 79: 96 h Oncorhynchus mykiss mg/L LC50 static 326.4 - 426.9: 96 h Poecilia reticulata mg/L LC50 static		69: 48 h Daphnia magna mg/L EC50

Persistence and Degradability

Not determined

Bioaccumulation

Not determined

Mobility

Chemical Name	Partition Coefficient
Methyl Methacrylate Monomer	0.7

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl Methacrylate Monomer	U162	Included in waste stream: F039		U162

Chemical Name	California Hazardous Waste Status
Methyl Methacrylate Monomer	Toxic Ignitable

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Consumer Commodity

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**

Not Determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances IECS

- China Inventory of Existing Chemical Substances KECL -

Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methyl Methacrylate Monomer	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Methyl Methacrylate Monomer -		Proprietary	1.0

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Methyl Methacrylate Monomer (Proprietary)	1000 lb			X

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Methyl Methacrylate Monomer	X	X	X

16. OTHER INFORMATION

NFPA

Health Hazards

Not determined

Flammability

Not determined

Instability

Not determined

Special Hazards

Not determined

HMIS

Health Hazards

Not determined

Flammability

Not determined

Physical Hazards

Not determined

Personal Protection

Not determined

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03-Jan-2011

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31-May-2016

Revision Note

New format

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 a guidance for safe handling, use, processing, storage, transportation, disposal and release and 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