



SAFETY DATA SHEET

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ECR#23458

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name Tenure 4G, Part B

Other means of identification

UN-Number UN1993

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Dental bonding agent

Uses advised against No information available

Supplier's details

Supplier Address

Den-Mat
1017 W. Central Ave.
Lompoc, CA 93436
TEL: 805-346-3700

Emergency telephone number

Emergency Telephone Number 805-346-3700

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Specific Target Organ Systemic Toxicity (Single Exposure)	Category 3
Flammable liquids	Category 2

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word Danger
Hazard Statements

- Signal Word
Hazard Statements
- Causes serious eye irritation
 - May cause drowsiness or dizziness
 - Highly flammable liquid and vapor.



Appearance Clear to light yellow

Physical State Liquid.

Odor Aromatic solvent/acetone

Precautionary Statements

Prevention

- Wash face, hands and any exposed skin thoroughly after handling.
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- 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 electrical/ventilating/lighting/equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Keep cool

General Advice

None

Eyes

- IF IN EYES: Rinse Cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- IF eye irritation persists: Get medical advice/attention

Skin

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Inhalation

- 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

Fire

- In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

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

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

Aspiration hazard if swallowed - can enter lungs and cause damage Harmful to aquatic life

<5% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade secret
Acetone	67-64-1	80-85	*
Ethyl alcohol	64-17-5	5-15	*
Bis[2-[(2-methyl-1-oxoallyl)oxy]ethyl] dihydrogen benzene-1,2,4,5-tetracarboxylate	51156-91-3	10-15	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
Skin Contact	Wash off with warm water and soap. Consult a physician if necessary.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Seek immediate medical attention/advice.
Ingestion	Do NOT induce vomiting. Aspiration hazard if swallowed - can enter lungs and cause damage. Call a physician or Poison Control Center immediately.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects Dizziness. Drowsiness.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Condition of the patient should be carefully monitored. Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Control Center for additional treatment information.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

Extremely flammable.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge Yes.

Protective Equipment and Precautions for Firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Ensure adequate ventilation. Avoid breathing vapors or mists. Remove all sources of ignition. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

Environmental Precautions

Environmental Precautions

Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE**Precautions for safe handling**

Handling Ensure adequate ventilation. Avoid breathing vapors. Keep away from open flames, hot surfaces and sources of ignition. Ground and bond all lines and equipment associated with product system. All equipment should be non-sparking and explosion proof. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone 67-64-1	STEL: 750 ppm TWA: 500 ppm	TWA: 1000 ppm TWA: 2400 mg/m ³ (vacated) TWA: 750 ppm (vacated) TWA: 1800 mg/m ³ (vacated) STEL: 2400 mg/m ³ The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors (vacated) STEL: 1000 ppm	IDLH: 2500 ppm 10% LEL TWA: 250 ppm TWA: 590 mg/m ³
Ethyl alcohol 64-17-5	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm 10% LEL TWA: 1000 ppm TWA: 1900 mg/m ³
Bis[2-[(2-methyl-1-oxoallyl)oxy]ethyl] dihydrogen benzene-1,2,4,5-tetracarboxylate 51156-91-3	N/D	N/D	N/D

Appropriate engineering controls

Engineering Measures Showers Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields. Tightly fitting safety goggles.
Skin and Body Protection Long sleeved clothing. Impervious gloves.
Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Appearance	Clear to light yellow.
Odor	Aromatic solvent/acetone	Odor Threshold	No information available
<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>	
pH	5.8 - 6.2	None known	
Melting Point/Range Boiling Point/Boiling Range Flash Point	Not determined 65 - 75 °C -20 °C / -4 °F	None known None known For acetone	
Evaporation rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limits in Air upper flammability limit lower flammability limit	No data available No data available		
Vapor Pressure	No data available	None known	
Vapor Density	No data available	None known	
Specific Gravity	0.7 - 0.8 @ 25°C	None known	
Water Solubility	Mostly soluble	None known	
Solubility in other solvents	100% soluble in acetone and ethanol	None known	

Information on basic physical and chemical properties

Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	Similar to water	None known

Flammable Properties Not flammable

Explosive Properties No data available

Oxidizing Properties No data available

Other information

VOC Content (%) 82%

10. STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Ignitions sources - heat, sparks and open flames.

Incompatible materials

Strong acids. Strong oxidizing agents.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	The product itself has not been tested. Data is for major component in product.
Inhalation	May cause drowsiness and dizziness based on components. May cause irritation of respiratory tract.
Eye Contact	Irritating to eyes.
Skin Contact	May cause skin irritation and/or dermatitis.
Ingestion	Potential for aspiration if swallowed. Vomiting may aspirate into lungs and cause chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	May cause drowsiness and dizziness. Eye contact with liquid may cause irritation including stinging, burning, tearing, or reddening of the eyes.
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Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	Ethanol has been shown to be carcinogenic in long-term studies only when consumed and abused as an alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethyl alcohol	A3	Group 1	Known	X

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target Organ Effects	Eyes. Respiratory system.
Aspiration Hazard	Based on product level data, this product does not meet the requirement to be classified as an aspiration hazard. However, this product contains an ingredient that may cause aspiration if swallowed.

Numerical measures of toxicity - Product

Acute Toxicity <5% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral	7200 mg/kg; Acute toxicity estimate
Inhalation dust/mist	1520.7 mg/L; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Acetone 67-64-1		LC50 96 h: 4.74 - 6.33 mL/L (Oncorhynchus mykiss) LC50 96 h: 6210 – 8120 mg/L static (Pimephales promelas) LC50 96 h: = 8300 mg/L (Lepomis macrochirus)	EC50 = 14500 mg/L 15 min	EC50 48 h: 10294 - 17704 mg/L Static (Daphnia magna) EC50 48 h: 12600 - 12700 mg/L (Daphnia magna)
Ethyl alcohol 64-17-5		LC50 96 h: 12.0 - 16.0 mL/L static (Oncorhynchus mykiss) LC50 96 h: > 100 mg/L static (Pimephales promelas) LC50 96 h: 13400 - 15100 mg/L flow-through (Pimephales promelas)	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	LC50 48 h: 9268 - 14221 mg/L (Daphnia magna) EC50 24 h: = 10800 mg/L (Daphnia magna) EC50 48 h: = 2 mg/L Static (Daphnia magna)

Persistence and Degradability	No information available.
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Chemical Name	Log Pow
Acetone	-0.24
Ethyl alcohol	-0.32

Other Adverse Effects
 No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging Do not re-use empty containers.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Acetone - 67-64-1		Included in waste stream: F039		U002

14. TRANSPORT INFORMATION

DOT

UN-Number UN1993
 Proper shipping name Flammable liquids, n.o.s.
 Hazard Class 3
 Packing Group II
 Description UN1993, Flammable liquids, n.o.s. (Acetone, Ethyl Alcohol), 3, II
 Emergency Response Guide Number 128

TDG

UN-Number UN1993
 Proper Shipping Name Flammable liquid, n.o.s.
 Hazard Class 3
 Packing Group II
 Description UN1993, Flammable liquid, n.o.s. (Acetone, Ethyl alcohol), 3, II

MEX

UN-Number UN1993
 Proper Shipping Name Flammable liquid, n.o.s.
 Hazard Class 3
 Packing Group II
 Description UN1993, Flammable liquid, n.o.s. (Acetone, Ethyl alcohol), 3, II

IATA

UN-Number UN1993
 Proper Shipping Name Flammable liquid, n.o.s.
 Hazard Class 3
 Packing Group II
 ERG Code 3H
 Description UN1993, Flammable liquid, n.o.s. (Acetone, Ethyl alcohol), 3, II

IMDG/IMO

UN-Number UN1993
 Proper Shipping Name Flammable liquid, n.o.s.
 Hazard Class 3
 Packing Group II

EmS No.	F-E, S-E
Description	UN1993, Flammable liquid, n.o.s. (Acetone, Ethyl alcohol), 3, II, (-20°C c.c.)

15. REGULATORY INFORMATION

International Inventories

TSCA All components of this product are either listed or are exempt on the TSCA inventory.

Legend

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

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Acetone	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations

California Proposition 65

Ethyl alcohol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Chemical Name	CAS-No	California Prop. 65
Ethyl alcohol	64-17-5	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Acetone	X	X	X		X
Ethyl alcohol	X	X	X	-	

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	Health Hazard 1	Flammability 3	Instability 0	Physical and Chemical Hazards -
HMIS	Health Hazard 2*	Flammability 3	Physical Hazard 0	Personal Protection X

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General Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet