

14: Transport Information

DOT
 UN Number: UN2922
 UN Proper Shipping Name: Corrosive liquids, toxic, n.o.s. (Glutaraldehyde)
 Transport Hazard Class(es)
 Class: 8
 Subsidiary Risk: 6.1(PGIII)
 Label(s): 8+6.1
 Packing Group: III
 Environmental Hazards
 Marine Pollutant: No
 Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
 Special Provisions: IB3, I7, TP1, TP28
 Packaging Exceptions: 154
 Packaging Non Bulk: 203
 Packaging Bulk: 241

IATA
 UN Number: UN2922
 UN Proper Shipping Name: Corrosive liquid, toxic, n.o.s. (Glutaraldehyde)
 Transport Hazard Class(es)
 Class: 8
 Subsidiary Risk: 6.1(PGIII)
 Label(s): 8+6.1
 Packing Group: III
 Environmental Hazards: No
 ERG Code: 8P
 Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.

IMDG
 UN Number: UN2922
 UN Proper Shipping Name: CORROSIVE LIQUID, TOXIC, N.O.S. (GLUTARALDEHYDE)
 Transport Hazard Class(es)
 Class: 8
 Subsidiary Risk: 6.1(PGIII)
 Packing Group: III
 Environmental Hazards
 Marine Pollutant: No
 EmS: F-A, S-B
 Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not established.

15: Regulatory Information

US Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
 TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.
 CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.
 SARA 304 Emergency Release Notification: Not regulated.
 OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053): Not regulated.
 SARA 302 Extremely Hazardous Substance: Not listed.
 Superfund Amendments and Reauthorization Act of 1986 (SARA)
 SARA 311/312 Hazardous Chemical: Yes
 Classified Hazard Categories:
 Acute toxicity (any route of exposure)
 Skin corrosion or irritation
 Serious eye damage or eye irritation
 Respiratory or skin sensitization
 SARA 313 (TRI reporting): Not regulated.
 Other Federal Regulations
 Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.
 Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.
 Safe Drinking Water Act (SDWA): Not regulated.
 US State Regulations
 US. Massachusetts RTK - Substance List: Glutaraldehyde (CAS 111-30-8)
 US. New Jersey Worker and Community Right-to-Know Act: Glutaraldehyde (CAS 111-30-8)
 US. Pennsylvania Worker and Community Right-to-Know Law: Glutaraldehyde (CAS 111-30-8)
 US. Rhode Island RTK: Glutaraldehyde (CAS 111-30-8)
 California Proposition 65: California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.
 US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs. tit. 22, 69502.3, subd. (a)): Glutaraldehyde (CAS 111-30-8)

International Inventories

Country(s) or Region	Inventory Name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
 A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).



G5™

All-Purpose Desensitizer

INSTRUCTIONS FOR USE

DATE OF ISSUE: February 21, 2018
 DATE OF REVISION: June 2, 2021

INDICATIONS

G5™ is an outstanding desensitizing agent that excels in preventing sensitivity associated with the placement of crowns, inlays/onlays, composites or amalgam restorations. G5 also can be used to help desensitize exposed root surfaces, but works best if subsequently sealed with a resin sealing agent or dentin adhesive.

MECHANISM OF ACTION

G5 reduces sensitivity by killing bacteria and sealing the dentinal tubules. G5 has profound antimicrobial qualities and acts as an excellent disinfectant. Additionally, G5 seals the tubules by coagulating plasma proteins within the tubules, thus forming a series of coagulation plugs in the dentinal tubules. This coagulation phenomenon results in a significant reduction in dentin permeability and fluid flow, which are vital keys to desensitization.

When used with resin-bonded restorations, G5 also acts as a flocculating agent, effectively fostering collagen cross links that result in enhanced collagen bonding. Unlike many one bottle desensitizers, G5 does not adversely affect the bonding of any resin-based restorative materials or cements.

GENERAL INFORMATION

G5 contains glutaraldehyde, HEMA, and water. The time-proven formulation of G5 has demonstrated outstanding clinical performance for over 15 years.

USED WITH CROWNS, INLAYS/ONLAYS

G5 is very effective at preventing sensitivity when applied to crown, inlay or onlay preparations on vital teeth prior to cementation. It can be used in conjunction with all cement types with no adverse effects on retention. G5 also can be used at the "prep" appointment to desensitize the tooth during temporization. However, since G5 is essentially a dentin primer, it should be applied to the tooth only after temporary fabrication when using a bisacryl-type temporary material.

INSTRUCTIONS FOR USE WITH UNBONDED CROWNS, INLAYS or ONLAYS (Glass Ionomer Cements, Resin-Modified Cements, Zinc Phosphate, or Other Non-Bonding Luting Agents)

- Clean tooth preparation area.
- Dry with air (dryness is not critical).
- Apply G5 to dried tooth using a microbrush or cotton pellet. Avoid soft tissue.
- Wait 30 seconds, then dry with air.
- Place restorative material such as amalgam, castings, etc. (Zinc phosphate and glass ionomer cements work well with G5).

INSTRUCTIONS FOR USE WITH RESIN-BONDED CROWNS, INLAYS or ONLAYS (Conventional Adhesive Resin Cements)

- Clean tooth preparation area.
- Etch with 10-40% phosphoric acid for 15 to 30 seconds.
- Rinse.
- Dry with air (dryness is not critical).
- Apply G5 using a microbrush or cotton pellet. Avoid soft tissue.
- Wait 30 seconds, then dry or leave moist, per manufacturer's instructions for the bonding agent.
- Direct Restorations: Apply composite bonding agent and composite per manufacturer's instructions.
- Indirect Restorations: Apply composite bonding agent and luting resin per manufacturer's instructions.

ADDITIONAL TECHNIQUE RECOMMENDATIONS USED WITH POSTERIOR RESIN COMPOSITES

G5 excels at reducing sensitivity associated with posterior composites. It can be effectively used with any one or multi-bottle dentin adhesive that utilizes a classic all-etch approach with a wet bonding technique. G5 is essentially applied after etching but before adhesive primer application as a re-wetting agent in the bonding sequence. G5 does not adversely affect bonds to etched enamel.

INSTRUCTIONS FOR USE WITH POSTERIOR RESIN COMPOSITES

- Clean tooth preparation area.
- Etch preparation with phosphoric acid per dentin adhesive manufacturer's instructions.
- Rinse thoroughly.
- Lightly dry with air or blot with a cotton pellet to remove visible water. Do not desiccate.
- Re-wet the entire preparation with G5 using a microbrush or cotton pellet. Avoid soft tissue (rinse after application if G5 comes in contact with soft tissue). The dentin should exhibit a glistening appearance. Do not dry.
- Apply dentin adhesive according to the manufacturer's directions.

USED WITH AMALGAMS

G5 can be used to help prevent post-operative sensitivity associated with conventional amalgam restorations (unbonded).

- Clean tooth preparation.
- Apply G5 using a microbrush or very small cotton pellet. Avoid soft tissue (rinse after application if G5 comes in contact with soft tissue).
- Scrub preparation for 30 seconds. Avoid soft tissue (rinse after application if G5 comes in contact with soft tissue).
- Rinsing of the G5 from the prep after application is optional. Dry prep and proceed with placement of amalgam restoration.

WARNING! G5 and other gluteraldehyde-based desensitizers will burn soft tissues. Keep off soft tissues. Avoid contact with eyes, skin, and mucous membranes. If accidental contact occurs, FLUSH IMMEDIATELY WITH WATER. CONSULT PHYSICIAN IMMEDIATELY IF EYE CONTACT OCCURS. Keep away from children.

STORAGE AND SHELF LIFE: Expiration date is placed on each G5 bottle. G5 has a three year shelf life when kept below 25°C/77°F.



Distributed by
 Brasseler U.S.A. Dental, LLC
 One Brasseler Blvd
 Savannah, GA 31419, U.S.A.

REVO



G5™

All-Purpose Desensitizer

800.841.4522
 BrasselerUSA.com

B-5499-D

G5™

All-Purpose Desensitizer

SAFETY DATA SHEET

DATE OF ISSUE: October, 2019

DATE OF REVISION: June 2, 2021

1: Identification

Product Identifier: G5 All-Purpose Desensitizer

Other Means of Identification

Recommended Use: Desensitizer.

Recommended Restrictions: None known.

Manufacturer/Importer/Supplier/Distributor Information
Supplier

Company Name:

Brasseler U.S.A. Dental, LLC

Address: One Brasseler Blvd., Savannah, GA 31419, U.S.A.

Telephone: 800-841-4522

2: Hazard(s) Identification

Physical Hazards: Not classified.

Health Hazards:

Acute Toxicity, Oral	Category 4
Acute Toxicity, Inhalation	Category 3
Skin Corrosion/Irritation	Category 1B
Serious Eye Damage/Eye Irritation	Category 1
Sensitization, Respiratory	Category 1
Sensitization, Skin	Category 1A

Environmental Hazards:

Hazardous to the aquatic environment, acute hazard	Category 2
Hazardous to the aquatic environment, long-term hazard	Category 3

OSHA Defined Hazards: Not classified.

Label Elements:



Signal Word: Danger

Hazard Statement: Harmful if swallowed. Toxic if inhaled.

Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary Statement:

Prevention:

Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection. Avoid release to the environment.

Response:

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor.

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

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

Hazard(s) Not Otherwise Classified (HNOC)

Corrosive to the respiratory tract.

Supplemental Information: None.

3: Composition/Information on Ingredients

Mixtures

Chemical name	CAS number	%
Water	7732-18-5	50 - 70
Glutaraldehyde	111-30-8	1 - 10

Composition Comments:

The specific chemical identity and/or exact percentage of component(s) have been withheld as a trade secret. All concentrations are in percent by weight. Components not listed are either non-hazardous or are below reportable limits.

4: First-aid Measures

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Skin Contact:

Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion:

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most Important Symptoms/Effects, Acute and Delayed:

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Difficulty in breathing. May cause an allergic skin reaction. Dermatitis. Rash. Causes digestive tract burns. Causes respiratory tract burns.

Indication of Immediate Medical Attention and Special Treatment Needed:

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General Information:

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5: Fire-Fighting Measures

Suitable Extinguishing Media: Water fog. Foam.

Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific Hazards Arising from The Chemical: During fire, gases hazardous to health may be formed.

Special Protective Equipment and Precautions for Fire-Fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-Fighting Equipment/Instructions:

Move containers from fire area if you can do so without risk.

Specific Methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General Fire Hazards: This material will not burn until the water has evaporated. Residue can burn.

6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and Materials for Containment and Cleaning-Up:

Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers.

Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental Precautions:

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7: Handling and Storage

Precautions for Safe Handling:

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. Persons susceptible to allergic reactions should not handle this product. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for Safe Storage, including any incompatibilities:

Keep away from heat. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8: Exposure Controls/Personal Protection

Occupational Exposure Limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Glutaraldehyde (CAS 111-30-8)	Ceiling	0.05 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Glutaraldehyde (CAS 111-30-8)	Ceiling	0.8 mg/m ³ 0.2 ppm

Biological Limit Values: No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate. Eye wash facilities and emergency shower must be available when handling this product.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection: Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Skin Protection/Hand Protection: Wear appropriate chemical resistant gloves. Nitrile or butyl rubber gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

Skin Protection/Other: Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear NIOSH approved respirator appropriate for airborne exposure at the point of use.

Thermal Hazards: Wear appropriate thermal protective clothing, when necessary.

General Hygiene Considerations: Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace

9: Physical and Chemical Properties

Appearance

Physical State: Liquid.

Form: Liquid.

Color: Not available.

Odor: Not available.

Odor Threshold: Not available.

pH: Not available.

Melting Point/Freezing Point: Not available.

Initial Boiling Point and Boiling Range: Not available.

Flash Point: Does not flash.

Evaporation Rate: Not available.

Flammability (solid, gas): Not applicable.

Upper/Lower Flammability or Explosive Limits

Explosive Limit - Lower (%): Not available.

Explosive Limit - Upper (%): Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Relative Density: Not available.

Solubility(ies)

Solubility (Water): Not available.

Partition Coefficient (n-octanol/water): Not available.

Auto-ignition Temperature: Not available.

Decomposition Temperature: Not available.

Viscosity: > 20.5 mm²/s

Viscosity Temperature: 104 °F (40 °C)

Other Information

Explosive Properties: Not explosive.

Oxidizing Properties: Not oxidizing.

10: Stability and Reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability: Material is stable under normal conditions.

Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.

Conditions to Avoid: Contact with incompatible materials.

Excessive heat.

Incompatible Materials: Strong oxidizing agents. Free radical initiators. Peroxides. Steel.

Hazardous Decomposition Products: Thermal decomposition of this product can generate carbon monoxide and carbon dioxide.

11: Toxicological Information

Information on Likely Routes of Exposure

Inhalation: Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes respiratory tract burns.

Skin Contact: Causes severe skin burns. May cause an allergic skin reaction.

Eye Contact: Causes serious eye damage.

Ingestion: Harmful if swallowed. Causes digestive tract burns.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Difficulty in breathing. May cause an allergic skin reaction. Dermatitis. Rash. Causes digestive tract burns. Causes respiratory tract burns.

Information on Toxicological Effects

Acute Toxicity: Toxic if inhaled. Harmful if swallowed.

Components

Species Test Results

Glutaraldehyde (CAS 111-30-8)

Acute

Dermal

LD50

Rabbit

> 2000 mg/kg

Inhalation

Vapor

LC50

Rat

0.96 mg/l, 4 Hours

Aerosol

LC50

Rat

0.28 mg/l, 4 Hours

Oral

LD50

Rat

154 mg/kg

Skin Corrosion/Irritation: Causes severe skin burns.

Serious Eye Damage/Eye Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization

ACGIH Sensitization

GLUTARALDEHYDE, ACTIVATED

AND INACTVATED

(CAS 111-30-8)

Respiratory Sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity: Not listed.

NTP Report on Carcinogens: Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053): Not regulated.

Reproductive Toxicity: This product is not expected to cause reproductive or developmental effects.

Specific Target Organ Toxicity - Single Exposure: Not classified.

Specific Target Organ Toxicity - Repeated Exposure: Not classified.

Aspiration Hazard: Not an aspiration hazard.

Chronic Effects: Prolonged inhalation may be harmful.

Further Information: Symptoms may be delayed.

12: Ecological Information

Ecotoxicity: Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Persistence and Degradability: No data is available on the degradability of this product.

Bioaccumulative Potential

Mobility in Soil: No data available for this product.

Other Adverse Effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13: Disposal Considerations

Disposal Instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/ container in accordance with local/regional/national/international regulations.

Local Disposal Regulations: Dispose in accordance with all applicable regulations.

Hazardous Waste Code: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from Residues / Unused Products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated Packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.