



## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M Unitek Transbond Plus Light Cure Band Adhesive (712-080, 712-081)  
**MANUFACTURER:** 3M  
**DIVISION:** Orthodontic Products

**ADDRESS:** 3M Center  
 St. Paul, MN 55144-1000

**EMERGENCY PHONE:** 1-800-364-3577 or (651) 737-6501 (24 hours)

**Issue Date:** 01/06/2005  
**Supersedes Date:** 06/09/2004

**Document Group:** 11-9732-6

#### Product Use:

**Specific Use:** Orthodontic use  
**Intended Use:** Orthodontic use

### SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
SILANE TREATED GLASS	None	70 - 80
2-HYDROXY-1,3-DIMETHACRYLOXYPROPANE	1830-78-0	10 - 20
CITRIC ACID DIMETHACRYLATE OLIGOMER	None	5 - 10
SILANE TREATED SILICA	248596-91-0	< 2

For patient safety information or product usage information, please see package insert or contact the emergency number listed in Section 1.

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Paste

**Odor, Color, Grade:** Blue Color, Odorless

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** May cause allergic skin reaction.

## 3.2 POTENTIAL HEALTH EFFECTS

### Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

### Skin Contact:

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

### Inhalation:

Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

### Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	<i>No Data Available</i>
<b>Flammable Limits - LEL</b>	<i>Not Applicable</i>
<b>Flammable Limits - UEL</b>	<i>Not Applicable</i>

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Water may be used to blanket the fire. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Not applicable.

**Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.**

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Accidental Release Measures:** Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Collect as much of the spilled material as possible. Clean up residue with an appropriate organic solvent. Read and follow safety precautions on the solvent label and MSDS. Place in a closed container approved for transportation by appropriate authorities.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## SECTION 7: HANDLING AND STORAGE

### 7.1 HANDLING

Avoid eye contact. Avoid skin contact. A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove.

### 7.2 STORAGE

Store out of direct sunlight.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Use in a well-ventilated area.

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Avoid eye contact.

The following eye protection(s) are recommended: Safety Glasses with side shields.

#### 8.2.2 Skin Protection

Avoid skin contact. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

#### 8.2.3 Respiratory Protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection. Avoid breathing of vapors, mists or spray.

#### 8.2.4 Prevention of Swallowing

Do not ingest. Wash hands after handling and before eating.

### 8.3 EXPOSURE GUIDELINES

None Established

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	Blue Color, Odorless
<b>General Physical Form:</b>	Liquid
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	<i>No Data Available</i>
<b>Flammable Limits - LEL</b>	<i>Not Applicable</i>
<b>Flammable Limits - UEL</b>	<i>Not Applicable</i>
<b>Boiling point</b>	> 95 °F
<b>Density</b>	<i>No Data Available</i>
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Vapor Pressure</b>	<i>No Data Available</i>
<b>Specific Gravity</b>	Approximately 2 g/ml [Ref Std: WATER=1]
<b>pH</b>	<i>Not Applicable</i>
<b>Melting point</b>	<i>Not Applicable</i>
<b>Solubility in Water</b>	Nil
<b>Evaporation rate</b>	<i>Not Applicable</i>
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Volatile Organic Compounds</b>	<i>No Data Available</i>
<b>Percent volatile</b>	<i>Not Applicable</i>
<b>Percent volatile</b>	<i>No Data Available</i>
<b>VOC Less H2O &amp; Exempt Solvents</b>	<i>No Data Available</i>
<b>Viscosity</b>	Approximately 100000 centipoise

**SECTION 10: STABILITY AND REACTIVITY**

**Stability:** Stable.

**Materials and Conditions to Avoid:** Light

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**Hazardous Decomposition or By-Products**

<u>Substance</u>	<u>Condition</u>
Formaldehyde	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

**SECTION 11: TOXICOLOGICAL INFORMATION**

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

**SECTION 12: ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL INFORMATION**

Not determined.

## CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of waste product in a sanitary landfill. As a disposal alternative, incinerate in an industrial or commercial facility in the presence of a combustible material.

**EPA Hazardous Waste Number (RCRA):** Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

## SECTION 14: TRANSPORT INFORMATION

**ID Number(s):**

70-2020-9780-7, 70-2020-9781-5

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

## SECTION 15: REGULATORY INFORMATION

### US FEDERAL REGULATIONS

Contact 3M for more information.

### 311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

### STATE REGULATIONS

Contact 3M for more information.

### CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

Contact 3M for more information.

### INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

## SECTION 16: OTHER INFORMATION

### NFPA Hazard Classification

**Health:** 2 **Flammability:** 1 **Reactivity:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

### Revision Changes:

Section 1: Product use information was modified.  
Section 16: NFPA hazard classification for health was modified.  
Section 16: NFPA hazard classification for flammability was modified.  
Copyright was modified.  
Section 3: Potential effects from skin contact information was modified.  
Section 5: Extinguishing media information was modified.  
Section 5: Fire fighting procedures information was modified.  
Section 7: Handling information was modified.  
Section 8: Engineering controls information was modified.  
Section 8: Respiratory protection information was modified.  
Section 10: Hazardous decomposition or by-products table was modified.  
Section 2: Ingredient table was modified.  
Section 15: Inventories information was modified.  
Section 9: Density information was modified.  
Section 3 and Section 9: General physical form information was modified.  
Section 5: Autoignition temperature information was modified.  
Section 5: Flash point information was modified.  
Section 9: Property description for optional properties was modified.  
Section 9: Melting point information was modified.  
Section 9: Flash point information was modified.  
Section 9: Autoignition temperature information was modified.  
Section 9: Vapor density text was added.  
Section 9: Vapor pressure text was added.  
Section 9: Solubility in water text was added.  
Section 15: FDA heading was deleted.  
Section 15: FDA information was deleted.  
Section 9: Vapor density value was deleted.  
Section 9: Vapor pressure value was deleted.  
Section 9: Solubility in water value was deleted.

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