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**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b> QMI538NB (QM8049)	<b>Item No. :</b> QMI538NB
<b>Product type:</b> Die Attach Adhesive	<b>Region:</b> United States
<b>Company address:</b> Henkel Corporation 15051 East Don Julian Road Industry, California 91746	<b>Contact Information:</b> Telephone: 626.968.6511 Emergency Telephone: 860.571.5100 Internet: www.electronics.henkel.us

Contains one or more components for which a Toxic Substances Control Act (TSCA) Low Volume Exemption (LVE) applies. See Section 15.

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Hazardous components</u>	<u>%</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER</u>
Poly(tetrafluoroethylene) 9002-84-0	30-60	None	None	AEL (DuPont): 10 mg/m <sup>3</sup> , 8 Hr TWA, total dust; 5mg/m <sup>3</sup> , 8 hr. TWA respirable dust None
Synthetic resin Proprietary	10-30	None	None	None
Bismaleimide resin Unknown	10-30	None	None	None
Titanium dioxide 13463-67-7	5-10	10 mg/m <sup>3</sup> TWA	15 mg/m <sup>3</sup> TWA total dust	None
Additive Proprietary	1-5	None	None	None
Initiator Proprietary	1-5	None	None	None
Silica, amorphous (fumed) 7631-86-9	1-5	6 mg/m <sup>3</sup> TWA	10 mg/m <sup>3</sup> TWA	3 mg/m <sup>3</sup> TWA respirable dust

**3. HAZARDS IDENTIFICATION**

<u>EMERGENCY OVERVIEW</u>	
<b>HMIS:</b>	
<b>Physical state:</b> Paste	<b>HEALTH:</b> 2
<b>Color:</b> White	<b>FLAMMABILITY:</b> 1
<b>Odor:</b> Mild	<b>PHYSICAL HAZARD:</b> 0
	<b>Personal Protection:</b> See Section 8
<b>CAUTION:</b> MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.	

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects

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<b>Inhalation:</b>	May cause respiratory tract irritation. May cause central nervous system effects with nausea, dizziness and headache. Shortness of breath. Coughing.
<b>Skin contact:</b>	Moderate skin irritation. Repeated or prolonged contact can result in drying of skin. Pain and discomfort. Rash. Redness.
<b>Eye contact:</b>	Moderate eye irritation. Can cause mechanical irritation if dusts are generated. Blurred vision. Pain and discomfort. Stinging. Tearing. Redness.
<b>Ingestion:</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Existing conditions aggravated by exposure:** Eye disorders. Skin disorders. Pre-existing cardiovascular or respiratory conditions. Dermatitis.

**See Section 11 for additional toxicological information.**

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Remove contaminated clothing and shoes. Immediately flush skin with plenty of water (using soap, if available). Get medical attention if symptoms develop and persist. Wash clothing before reuse. Thoroughly clean shoes before reuse.
<b>Eye contact:</b>	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Give a conscious person several glasses of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms develop and persist.

#### 5. FIRE-FIGHTING MEASURES

<b>Flash point:</b>	Greater than 93°C (200°F)    Open cup
<b>Autoignition temperature:</b>	Not available
<b>Flammable/Explosive limits-lower %:</b>	Not available
<b>Flammable/Explosive limits-upper %:</b>	Not available
<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special fire fighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Use water spray to keep fire exposed containers cool.
<b>Unusual fire or explosion hazards:</b>	Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	Oxides of carbon. Oxides of nitrogen. Oxides of silicon. Hydrogen fluoride. Carbonyl fluoride. Toxic fluorides. Acids. Alcohols. Butadiene. Hydrocarbons.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Environmental precautions:</b>	Prevent product from entering drains or open waters.
<b>Clean-up methods:</b>	Ensure adequate ventilation. Wear suitable protective clothing, gloves and eye/face protection. Scrape up spilled material and place in a closed container for disposal.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Do not breathe mist or vapors. Wash thoroughly after handling.
<b>Storage:</b>	Keep in a cool, well ventilated area. Store away from heat, sparks, flames, or other sources of ignition. Store at or below 25°C (77°F).
<b>Incompatible products:</b>	Refer to Section 10.

For information on product shelf life contact Henkel Customer Service at (626) 968-6511

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering controls:</b>	Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.
<b>Respiratory protection:</b>	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
<b>Skin protection:</b>	Use impermeable gloves and protective clothing as necessary to prevent skin contact.
<b>Eye/face protection:</b>	Chemical splash goggles or safety glasses with side shields.

See Section 2 for exposure limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Paste
<b>Color:</b>	White
<b>Odor:</b>	Mild
<b>Vapor pressure:</b>	Not available
<b>pH:</b>	Not applicable
<b>Boiling point/range:</b>	Not available
<b>Melting point/range:</b>	Not available
<b>Specific gravity:</b>	1.45
<b>Vapor density:</b>	Not available
<b>Evaporation rate:</b>	Not available
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>VOC content:</b>	0.52%; 7.54 grams/liter (EPA Method 24)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous polymerization:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of nitrogen. Oxides of silicon. Hydrogen fluoride. Carbonyl fluoride. Toxic fluorides. Acids. Alcohols. Butadiene. Hydrocarbons.
<b>Incompatibility:</b>	Strong oxidizers. Strong acids. Strong bases. Alkalis. Amines. Peroxides. Reducing agents. Metals.
<b>Conditions to avoid:</b>	Oxidizing conditions. Storage with incompatible materials. Heat, flames and sparks. Exposure to moisture.

## 11. TOXICOLOGICAL INFORMATION

### Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Poly(tetrafluoroethylene) 9002-84-0	No	No	No
Synthetic resin Proprietary	No	No	No
Bismaleimide resin Unknown	No	No	No
Titanium dioxide 13463-67-7	No	No	No
Additive Proprietary	No	No	No
Initiator Proprietary	No	No	No
Silica, amorphous (fumed) 7631-86-9	No	No	No

#### Literature Referenced Target Organ & Other Health Effects

Hazardous components	Health Effects/Target Organs
Poly(tetrafluoroethylene) 9002-84-0	No Target Organs
Synthetic resin Proprietary	No Target Organs
Bismaleimide resin Unknown	No data
Titanium dioxide 13463-67-7	Irritant, Respiratory
Additive Proprietary	No Records
Initiator Proprietary	No data
Silica, amorphous (fumed) 7631-86-9	Nuisance dust

### 12. ECOLOGICAL INFORMATION

**Ecological information:** Not available

### 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations.

**EPA hazardous waste number:** Not a RCRA hazardous waste.

### 14. TRANSPORT INFORMATION

The shipping classifications in this section are for non-bulk packaging only (unless otherwise specified). Shipping classification may be different for bulk packaging.

**U.S. Department of Transportation Ground (49 CFR):**

**Proper shipping name:** Not regulated (Up to 30 ml when shipped as originally packaged by Henkel only)  
**Hazard class or division:** None  
**Identification number:** None  
**Packing group:** None

**International Air Transportation (ICAO/IATA):**

**Proper shipping name:** Not regulated (Up to 30 ml when shipped as originally packaged by Henkel only)  
**Hazard class or division:** None

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Identification number: None  
Packing group: None

**WaterTransportation (IMO/IMDG):**

Proper shipping name: Not regulated (Up to 30 ml when shipped as originally packaged by Henkel only)  
Hazard class or division: None  
Identification number: None  
Packing group: None

**15. REGULATORY INFORMATION**

**United States Regulatory Information**

**TSCA 8 (b) Inventory Status:** All components of this product are listed on the U.S. Toxic Substances Control Act (TSCA) or are exempted from listing because a Low Volume Exemption (LVE) has been granted in accordance with 40 CFR 723.50. Use of this product is limited to: Die attach adhesives in electronic applications.  
**TSCA 12 (b) Export Notification:** None.  
**CERCLA/SARA Section 302 EHS:** None.  
**CERCLA/SARA Section 311/312:** Immediate Health Hazard  
**CERCLA/SARA 313:** None above reporting de minimus.  
**California Proposition 65:** No California Proposition 65 listed chemicals are known to be present.

**Canada Regulatory Information**

**CEPA DSL/NDSL Status:** Contains one or more components for which a Schedule I has been filed. Contains one or more components listed on the Non-Domestic Substances list. All other components are listed on or are exempt from listing on the Domestic Substances List.  
**WHMIS hazard class:** D.2.B

**16. OTHER INFORMATION**

This material safety data sheet contains changes from the previous version in sections: 9, 15

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