1) PRODUCT IDENTIFICATION

Product: MC7685
Product Description: Cyanate ester admixture adhesive with alumina filler
Recommendation On Use: Low CTE, moisture, ionic impurities, high thermal.
General Use: High Temperature Die Attach
Restriction On Use: Intended for designated use only

2) HAZARD IDENTIFICATION

Signal Word: Warning

Precautionary Statement: For industrial use only
Physical Appearance: Paste
Immediate Concerns: This product may cause a rash on the skin.

Primary Route Entry: Skin
Medical Conditions Aggravated: No specific data

Potential Health Effects:

Eyes: Irritant
Skin: Adverse symptoms may include irritation and redness

Ingestion: No specific data
Inhalation: Irritant

Signs and Symptoms of Overexposure:

Eyes: Adverse symptoms may include irritation, watering and redness
Skin: Irritant

Ingestion: No specific data
Inhalation: Irritant

Acute Toxicity:
Chronic Exposure:

No known significant effects or critical hazards
No specific data

Mutagenicity:

Not classifiable as a carcinogen
Not Determined

Reproductive Effects:

No information with effecting the reproductive system

Sensitization:

Target Organ Statement:

Not Determined

3) COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS NO</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Oxide</td>
<td>1344-28-1</td>
<td>70-90</td>
</tr>
<tr>
<td>Cyanate Ester Admixture</td>
<td>1156-51-0</td>
<td>30-10</td>
</tr>
</tbody>
</table>

NOTE: * For powders only; in adhesive product, powders are bound in adhesive and values are not applicable.

4) FIRST AID MEASURES

First Aid Eye: Immediately flush eyes with eyewash solution or clean water holding the eyelids apart for 15 minutes. If symptoms develop, seek medical attention.
First Aid SKIN: Wash with soap and water. If symptoms develop, seek medical attention.
FIRST AID INHALE: Move to fresh air and keep at rest. Seek medical attention if

First Aid Ingest: If swallowed, do not induce vomiting. Keep person resting and seek medical attention.
Physician Note: Acute Symptoms: Seek medical treatment

Delayed Symptoms: Seek medical treatment

5) FIRE FIGHTING MEASURES

Flammable Class: 1
Flame Propagation or Burning Rate of Solids: Not determined

General Hazard: No specific fire or explosion hazard.
Extiguish Media: Sodium Bicarbonate and water

Hazardous Combustion Products: Carbon monoxide, oxides of nitrogen, formaldehyde, cyanide

Fire Fighting Procedures: Use self-contained breathing apparatus; decomposition and combustion products may be toxic.

Unsuitable Firefighting Equipment: Self-contained breathing apparatus should be available for fire fighters.

Suitable Firefighting Equipment: Not determined
Sensitive To Static Discharge: No
Sensitive To Impact: No

6) ACCIDENTAL RELEASE MEASURES

Small Spill: Cover with sand and place in waste containers for disposal
Large Spill: Contain spill and place in waste containers for disposal
Water Spill: Keep from going into water systems
Land Spill: Contain spill and place in waste containers for disposal

7) HANDLING AND STORAGE

Handling: Use latex gloves and safety glasses
Storage: -40C

8) EXPOSURE CONTROLS / PERSONAL PROTECTION

PPE Eye And Face: Approved safety glasses and full face safety shield should be worn based on the task being performed
PPE Skin: Personal protective equipment should be worn based on the task being performed

Engineering Controls: OSHA PEL ACGIH TLV EINECS
PPE Respiratory: 0.01 mg/m³ * 0.01 mg/m³ *
PPE Ventilation: None Established None Established
PPE Other: Personal protective equipment should be worn based on the task being performed

9) PHYSICAL AND CHEMICAL PROPERTIES

Flashpoint And Method: Not Determined
Upper Flammable Limits: Not Determined
Autoignition Temperature: Not Determined
Color: Light beige
Vapor Pressure: Not Determined
Vapor Density: Not Determined
Boiling Point: > 400C
Melting Point: None
Evaporation Rate: Not Determined
Specific Gravity: 1.8
Molecular Weight: Not Determined
Appearance: Paste

9) PHYSICAL AND CHEMICAL PROPERTIES

Lower Flammable Limits: Not Determined
Physical State: Paste
Odor: Slight chemical odor
Odor Threshold: PH: Not Determined
Freezing Point: Not Determined
Solubility In Water: None
Density: 1.8
Viscosity: Coeff. Oil/Water: Not Determined.

10) STABILITY AND REACTIVITY

Hazardous Polymerization: May occur
Chemical Stability: Stable
Polymerization: Hazardous polymerization may occur.
Conditions To Avoid: Refer to Material Safety Data Sheet

Hazardous Decomposition Products:
Thermal degradation could produce carbon monoxide, carbon dioxide and unidentified organic compounds.

Incompatibility Materials:
There is no danger when product is cured.

11) TOXICOLOGICAL INFORMATION

Acute:
Eyes: Dermal LD50: Not Determined Oral LD50: Not Determined Inhalation LC50: Not Determined
Eye Effects: May cause burning and watery eyes
Skin Effects: Not Determined

Carcinogenicity:
IARC: Not Determined NTP: Not Determined
OSHA: 0.01 mg/m³ *
Sensitization: May cause sensitization by skin contact
Reproductive Effects: Not Determined
12) ECOLOGICAL INFORMATION

Ecotoxicity: No known significant effects or critical hazards
Mobility In Soil: No known significant effects or critical hazards
Persistence And Degradability: No known significant effects or critical hazards
Bioaccumulative Potential: No known significant effects or critical hazards

13) DISPOSAL CONSIDERATIONS

Disposal Method: This material and its container must be disposed of in a safe way.
For Large Spills: Disposal of this product should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements
Product Disposal: Disposal of this product should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements
Empty Container: Disposal of this product should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements

14) TRANSPORT INFORMATION

Road And Rail (ADR/RID)
Transport Information: Not Regulated
Kemler Number: Unknown
Hazard Class: Irritant

Air (CIAO/IATA)
Shipping Name: Not Regulated
Technical Name: Unknown
UN Number: N.A.
Primary Hazard Class: N.A.
Packing Group: Unknown
Label: N.A.

Vessel (IMO/IMDG)
Shipping Name: Not Regulated
Technical Name: Unknown
UN Shipping Name: N.A.
Primary Hazard Class: N.A.
Packing Group: Unknown
Label: N.A.

15) REGULATORY INFORMATION

TCSA: Unknown
Skin: Unknown
Gastrointestinal: Unknown
Respiratory System: Unknown

16) OTHER INFORMATION

HMIS Health Rating (1-4): 1
HMIS Flammability Rating (1-4): 1
HMIS Physical Hazard Rating (1-4): 0
Long Term Health Affects (Y/N): N

Note: All ingredients in this product are on the Toxic Substances Control Act (TSCA) inventory or are not required to be listed.
No ingredient in this product is known to be carcinogenic.
Ingredients listed on the New Jersey "RIGHT TO KNOW" substance list: Aluminum Oxide: Substance#2891 CAS#1344-28-1
This product is compliant to RoHS & REACH and does not contain any Substances of Very High Concern

Section X: HMIS Hazard ID: Health 1 Flammability 1 Reactivity 0

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