1. Identification of the Substance/Preparation and of the Company/Undertaking

(a) Product name          Polyimide adhesive tape
     Product identifier  P-222

(b) Other means of identification  
     Product Code  P627-00034

(c) Recommended Use  
     High temperature resistant, high dielectric strength adhesive tape

(d) Supplier Address  
     Nitto, Inc.
     1990 Rutgers University Blvd. Lakewood, NJ08701, U.S.A.
     TEL.+1-732-901-7905  FAX.+1-732-901-9354

     Emergency telephone number  
     +1-732-901-7905 (Nitto, Inc.)

2. Hazards Identification

(a) GHS - Classification  
     Not applicable for article

(b) Label elements  
     Not Applicable

(c) Physical state  
     Solid

(d) Odor  
     Slight

(e) Other Hazards  
     Not Applicable

(f) Numerical measures of toxicity  
     Not Applicable
     (such as acute toxicity estimates)

3. Composition/information on Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Concentration or concentration ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyimide</td>
<td>25038-81-7</td>
<td>55-65</td>
</tr>
<tr>
<td>Silicone adhesive</td>
<td>-</td>
<td>35-45</td>
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</tbody>
</table>

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

4. First aid measures

(a) General information
     (If inhaled)  
     Will not occur
     (Eye contact)  
     Call a physician immediately
     (Skin contact)  
     Wash off immediately with soap and plenty of water
     In the case of skin irritation or allergic reactions see a physician
     (Ingestion)  
     Get immediate medical advice/attention

(b) Most important symptoms/effects, acute and delayed  
     No information available

(c) Self-protection of the first aider  
     Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves
     (Note to physicians)  
     No information available

5. Fire-fighting measures

(a) Fire extinguishing agent  
     Dry chemical, CO2, water spray or regular foam
     Prohibited media
     No information available

(b) Special exposure hazards in a fire
     No information available
     Hazardous combustion products
     No information available
Explosion data
- No information available

Sensitivity to Mechanical Impact
- No information available

Sensitivity to Static Discharge
- No information available

(c) Special protective equipment and precautions for firefighters
In the event of fire, wear self-contained breathing apparatus
Use personal protective equipment as required

6. Accidental release measures

(a) Personal Precautions
- Avoid contact with eyes and skin
   Protective gloves and safety glasses recommended

(b) Environmental precautions
- Collect spillage
   Prevent product from entering drains
   Keep out of waterways

(c) Methods and material for containment and cleaning up
- Should not be released into the environment

7. Handling and Storage

(a) Precautions for safe handling
- Protective gloves and safety glasses recommended

(b) Storage conditions
- Store at room temperature and normal humidity away from direct sunlight

8. Exposure Controls/Personal Protection

(a) Control parameters
- None under normal use conditions

(b) Appropriate engineering controls
- Ensure adequate ventilation, especially in confined areas

(c) Personal protective equipment [PPE]
   - Respiratory Protection: None under normal use conditions
   - Hand protection: Wear non-permeable gloves
   - Skin protection: Wear protective gloves and protective clothing

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

(a) Physical state
- Solid

(b) Color
- Amber

(c) Odor
- Slight

(d) pH
- No data available

(e) Melting point / Freezing point
- No information available

(f) Boiling point / boiling range
   - boiling point: Not Applicable

(g) Flash Point
- No data available

(h) Evaporation rate
- No data available

(i) Flammability (solid, gas)
   - Solid: Non-flammable

(j) Upper/lower flammability or explosive limits

<table>
<thead>
<tr>
<th>Upper</th>
<th>Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

(k) vapor pressure
- Not Applicable

(l) Vapor density
- Not Applicable

(m) Specific gravity
- No data available

(n) Solubility
- Insoluble in water

(o) Partition Coefficient
- No data available

(p) Auto ignition temperature
- No data available

(q) decomposition temperature
- No data available

(r) Kinematic viscosity
- No data available

(s) molecular weight
- No data available
10. Stability and Reactivity

(a) Reactivity
Stable under normal conditions
(b) Chemical stability
Stable under normal conditions
(c) Possibility of hazardous reactions
No data available
(d) Conditions to avoid
No information available
(e) Incompatible materials
No information available
(f) Hazardous decomposition products
Thermal decomposition can lead to release of irritating and toxic gases and vapors
Carbon dioxide (CO2)
Carbon monoxide

11. Toxicological Information

(a) Information on likely routes of exposure
Inhalation
Not an expected route of exposure
Ingestion
Not an expected route of exposure
Skin contact
May cause skin irritation to sensitive individuals
Eye contact
May cause eye irritation to sensitive individuals
(b) Most important symptoms/effects, acute and delayed
No information available
(c) Delayed and immediate effects and also chronic effects from short- and long-term exposure
Acute Toxicity
No information available
Skin corrosion/irritation
No information available
Serious eye damage/eye irritation
No information available
Respiratory sensitization
No information available
Germ cell mutagenicity
No data available on finished product
Reproductive Toxicity
No data available on finished product
Specification target internal organs/systemic toxicity (single exposure)
No data available on finished product
Specification target internal organs/systemic toxicity (repeat exposure)
No data available on finished product
Aspiration hazard
Not Applicable
(d) Unknown Acute Toxicity
Not Applicable
(e) Carcinogenicity
No data available on finished product

12. Ecological Information

(a) Ecotoxicity
No data available on finished product
(b) Mobility in soil
No data available on finished product
(c) Persistence and degradability
No data available on finished product
(d) Bioaccumulation
No data available on finished product
(e) Other adverse effects
Ozone depletion potential (ODP)
Stable under normal conditions

13. Disposal Considerations

Waste treatment methods
Dispose of in accordance with federal, state and local regulations. The Customer is responsible for the proper disposal of any waste generated as a result of the use of the Product or of the Product itself, and is responsible for complying with all applicable laws, rules and regulations relating to the management, storage, treatment, shipment and disposal of such waste or Product (“Waste Management Practices”). “Product” includes anything sold by Nitto Denko Corporation and/or any affiliates or subsidiaries (“Company”) to Customer. The Company is not responsible for any of the Customer's Waste Management Practices. As part of those practices, Customer must separate packaging from Product before disposal. Further, Customer should review and comply with this SDS prior to any such disposal.
Customer shall hold harmless the Company, its agents, contractors, successors and assigns from any and all liability, claims, loss, damage, death or injury, including reasonable attorney's fees and costs, arising out of or relating to Customer's Waste Management Practices.
Contaminated packaging
Dispose of in accordance with federal, state and local regulations
See Disposal of Wastes

Disposal considerations
Should not be released into the environment

14. Transport Information

DOT(U.S. Department of Transportation) Not regulated
(HMTA)

UN number Not Applicable
UN Proper Shipping Name Not regulated
Transport hazard class Not Applicable
Packing group, if applicable Not Applicable
Environmental hazards Not Applicable
(Applicable/Not applicable)
Transport in bulk according to Annex II of MARPOL 73/78 and the
IBC Code
Special precautions in connection with transport or conveyance
Store in a cool area away from heat

TDG Not regulated
MEX(Transport is specifically for Mexico) Not regulated
ICAO (air) Not regulated
IATA Not regulated
IMDG Not regulated
UN number Not Applicable
UN Proper Shipping Name Not regulated
Transport hazard class Not Applicable
Special precautions in connection with transport or conveyance
Store in a cool area away from heat

RID (Regulations concerning the International Carriage of Dangerous
Goods by Rail) Not regulated
ADR (European Agreement concerning International Carriage of Dangerous
Goods by Road) Not regulated
ADN Technical Name Not regulated

15. Regulatory information

US Federal Regulations
SARA 313 Not Applicable

US State Regulations
California Proposition 65
This product will not contain compounds in particulate (respirable) form under normal conditions

U.S. State Right-to-Know Regulations Not Applicable

Global Inventories Not Applicable

REACH 7 Article 33 Article SVHC notification (> 0.1 wt. %) None based on the current SVHC listing, as of the date of this SDS.

16. Other information

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability:</th>
<th>Physical and Chemical Properties</th>
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<th>Flammability</th>
<th>Physical Hazards</th>
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Issue date 03-Feb-2017
Date prepared 03-Feb-2017
Version 1
Source Information Raw material SDS
LOLI(Chem ADVISOR) GHS classification data
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End of Safety Data Sheet