

Issue date 19-May-2016

Date prepared 18-Apr-2017

Version 2

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

- (a) Product name Polyimide film Silicone double-coated adhesive tape
Product identifier P-223
- (b) Other means of identification
Product Code P627-00049
- (c) Recommended Use Bonding agent
 Combined laminating product for electricity
- (d) Supplier Address Nitto, Inc.
 1990 Rutgers University Blvd. Lakewood, NJ08701, U.S.A.
 TEL.+1-732-901-7905 FAX.+1-732-901-9354
- (e) Manufacturer details Nitto, Inc.
 1990 Rutgers University Blvd. Lakewood, NJ08701, U.S.A.
 TEL.+1-732-901-7905 FAX.+1-732-901-9354
- (f) Emergency telephone number +1-732-901-7905 (Nitto, Inc.)

2. Hazards Identification

- (a) GHS - Classification Not applicable for article
- (b) Label elements Not Applicable
Physical state Solid
Odor Slight

3. Composition/information on Ingredients

Product Classification ARTICLE

<u>Chemical name</u>	<u>CAS No</u>	<u>Concentration or concentration ranges</u>
Silicone adhesive	-	65-75
Polyimide	25038-81-7	25-35
Dibutyltin diacetate	1067-33-0	<0.1

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) <u>Fire extinguishing agent</u>
<u>Prohibited media</u> | Dry chemical, CO2, water spray or regular foam
No information available |
| (b) <u>Special exposure hazards in a fire</u>
<u>Hazardous combustion products</u>
<u>Explosion data</u>
<u>Sensitivity to Mechanical Impact</u>
<u>Sensitivity to Static Discharge</u> | No information available
No information available
No information available
No information available
No information available |
| (c) <u>Special protective equipment and precautions for firefighters</u> | In the event of fire, wear self-contained breathing apparatus
Use personal protective equipment as required |

6. Accidental release measures

- | | |
|---|--|
| (a) <u>Personal Precautions</u>
<u>Protective equipment and emergency procedures</u> | Avoid contact with eyes and skin
Protective gloves and safety glasses recommended |
| (b) <u>Environmental precautions</u> | Collect spillage
Prevent product from entering drains
Keep out of waterways |
| (c) <u>Methods and material for containment and cleaning up</u> | Should not be released into the environment |

7. Handling and Storage

- | | |
|---|---|
| (a) <u>Precautions for safe handling</u> | Protective gloves and safety glasses recommended |
| (b) <u>Storage conditions</u> | Store at room temperature and normal humidity away from direct sunlight |

8. Exposure Controls/Personal Protection

- | | |
|---|---|
| (a) <u>Control parameters</u> | None under normal use conditions |
| (b) <u>Appropriate engineering controls</u> | Ensure adequate ventilation, especially in confined areas |
| (c) <u>Personal protective equipment [PPE]</u>
<u>Respiratory Protection</u>
<u>Hand protection</u>
<u>Skin protection</u> | None under normal use conditions
Wear non-permeable gloves
Wear protective gloves and protective clothing |

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

- | | |
|--|----------------------------------|
| (a) <u>Physical state</u> | Solid |
| (b) <u>Color</u> | amber |
| (c) <u>Odor</u> | Slight |
| (d) <u>pH</u> | No data available |
| (e) <u>Melting point / Freezing point</u> | No information available |
| (f) <u>Boiling point / boiling range</u>
<u>boiling point</u> | Not Applicable
Not Applicable |
| (g) <u>Flash Point</u> | No data available |
| (h) <u>Evaporation rate</u> | No data available |
| (i) <u>Flammability (solid, gas)</u> | Non-flammable solid |
| (j) <u>Upper/lower flammability or explosive limits</u>
<u>Upper</u>
<u>Lower</u> | Not Applicable
Not Applicable |
| (k) <u>vapor pressure</u> | Not Applicable |
| (l) <u>Vapor density</u> | Not Applicable |
| (m) <u>Specific gravity</u> | No data available |
| (n) <u>Solubility</u> | Insoluble in water |
| (o) <u>Partition Coefficient</u>
<u>(n-octanol/water)</u> | No data available |
| (p) <u>Autoignition temperature</u> | No data available |

<u>(g) decomposition temperature</u>	No data available
<u>(r) Kinematic viscosity</u>	No data available
<u>(s) molecular weight</u>	No data available

10. Stability and Reactivity

<u>(a) Reactivity</u>	Stable under normal conditions
<u>(b) Chemical stability</u>	Stable under normal conditions
<u>(c) Possibility of hazardous reactions</u>	No data available
<u>(d) Conditions to avoid</u>	No information available
<u>(e) Incompatible materials</u>	No information available
<u>(f) Hazardous decomposition products</u>	Thermal decomposition can lead to release of irritating and toxic gases and vapors Carbon dioxide (CO ₂) Carbon monoxide

11. Toxicological Information

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

12. Ecological Information

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

13. Disposal Considerations

Waste treatment methods**Disposal of wastes**

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

Disposal considerations

Should not be released into the environment

14. Transport Information

<u>DOT(U.S. Department of Transportation)</u>	Not regulated
<u>(HMTA)</u>	
<u>UN number</u>	Not Applicable
<u>UN Proper Shipping Name</u>	Not regulated
<u>Transport hazard class</u>	Not Applicable
<u>Packing group, if applicable</u>	Not Applicable
<u>Environmental hazards</u>	Not Applicable
<u>(Applicable/Not applicable)</u>	
<u>Transport in bulk according to</u>	Not Applicable
<u>Annex II of MARPOL 73/78 and the</u>	
<u>IBC Code</u>	
<u>Special precautions in connection</u>	Store in a cool area away from heat
<u>with transport or conveyance</u>	
<u>TDG</u>	Not regulated
<u>MEX(Transport is specifically for Mexico)</u>	Not regulated
<u>ICAO (air)</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>UN number</u>	Not Applicable
<u>UN Proper Shipping Name</u>	Not regulated
<u>Transport hazard class</u>	Not Applicable
<u>Special precautions in connection</u>	Store in a cool area away from heat
<u>with transport or conveyance</u>	
<u>RID (Regulations concerning the</u>	Not regulated
<u>International Carriage of Dangerous</u>	
<u>Goods by Rail)</u>	
<u>ADR (European Agreement concerning</u>	Not regulated
<u>International Carriage of Dangerous</u>	
<u>Goods by Road)</u>	
<u>ADN Technical Name</u>	Not regulated

15. Regulatory information

<u>US State Regulations</u>	Not Applicable
<u>California Proposition 65</u>	This product does not contain any Proposition 65 chemicals
This product will not contain compounds in particulate (respirable) form under normal conditions	
<u>U.S. State Right-to-Know Regulations</u>	Not Applicable
<u>Global Inventories</u>	Not Applicable
<u>REACH 7 Article 33 Article SVHC</u>	None based on the current SVHC listing, as of the date of this SDS.
<u>notification (> 0.1 wt. %)</u>	

16. Other information

NFPA	Health Hazards 0	Flammability 0	Instability: 0	Physical and Chemical Properties -
HMIS	Health Hazards 0	Flammability 0	Physical Hazards 0	Personal protective equipment X

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Version 2
Source Information Raw material SDS
 LOLI(Chem ADVISOR) GHS classification data

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End of Safety Data Sheet