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

Product name
DOUBLE-COATED ADHESIVE TAPE

Product identifier
TR-5310

Product Code
P020-00031315-0000

Supplier Address
Nitto Denko Corporation Toyohashi Plant
18, Hirayama, Nakahara-cho, Toyohashi, Aichi, 441-3194, Japan
TEL.+81-532-41-8461, FAX. +81-532-41-8064

Department responsible
Quality Management Dept. Administration Div

Emergency telephone number
+81-532-41-1121 (TOYOHASHI PLANT)

Recommended Use
For LED light

2. Hazards Identification

GHS Classification
Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

3. Composition/information on Ingredients

<table>
<thead>
<tr>
<th>Single Substance or Mixture</th>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acrylic adhesive</td>
<td>-</td>
<td>85-95</td>
</tr>
<tr>
<td></td>
<td>Polyester film</td>
<td>-</td>
<td>5-15</td>
</tr>
<tr>
<td></td>
<td>Silicone coated paper (Release liner)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

4. First aid measures

If inhaled
Will not occur

Skin contact
Peel slowly, then rinse in water

Eye contact
In the case of skin irritation or allergic reactions see a physician

Ingestion
Immediately flush with large amounts of water for at least 15 minutes. Examination and treatment by a physician if necessary

Most important symptoms/effects, acute and delayed
Immediately induce vomiting and then consult a doctor

Self-protection of the first aider
No information available

Note to physicians
No information available

5. Fire-fighting measures

Fire extinguishing agent
Carbon dioxide (CO2)
Extinguishing powder
Water
ABC-powder

Prohibited media
No information available

Special exposure hazards in a fire
No information available

Specific extinguishing methods
No information available

Advice for fire-fighters
Due to poisonous gas (chlorine gas and so on) may be occurred, if needed, use Gas mask and Goggles

6. Accidental release measures

Personal Precautions
Will not occur. Not specified

Protective equipment and emergency procedures
Will not occur. Not specified

Environmental precautions
Will not occur. Not specified

Methods and material for containment and cleaning up
Will not occur. Not specified
7. Handling and Storage

Handling
Technical measures:
None in particular
Local and general exhaust ventilation
Not required for use in normal temperature
Precautions for safe handling
Provide adequate ventilation when performing high-temperature processing
Remarks
None in particular
Use caution and protective gloves to avoid cuts with edges of tape liners

Storage
Technical measures:
None in particular
Storage conditions
Store at room at room temperature and normal humidity away from direct sunlight
Storage conditions to avoid
Avoid high temperature
Incompatible materials
No information available
Conditions for safe storage, including any incompatibilities
Shipping package

8. Exposure Controls/Personal Protection

Control parameters
Unset
Permissible concentration
Unset
Appropriate engineering controls
Not required

Personal protective equipment [PPE]
Respiratory Protection
Not required
Hand protection
Not required
Eye protection
Not required
Skin protection
Not required

General hygiene considerations
None under normal use conditions

9. Physical and Chemical Properties

Physical state
Solid
Color
Roll type
Odor
white
pH
None in particular
Melting point / Freezing point
No data available
Boiling point
No data available
Flashing Point
No data available
Autoignition temperature
No data available
Upper
No data available
Lower
No data available
Vapor pressure
No data available
Vapor density
No data available
Specific gravity
approx 1.4
Solubility
Insoluble in water
Partition Coefficient (n-octanol/water)
No data available
Decomposition temperature
No data available

10. Stability and Reactivity

Reactivity
Stable under normal conditions of use and storage
Possibility of hazardous reactions
No data available
Conditions to avoid
None in particular
Incompatible materials
No information available
Hazardous decomposition products
No information available

11. Toxicological Information

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 information available
Reproductive Toxicity
No information available
 Specification target internal organs/systemic toxicity (single exposure)
No information available
Specification target internal
No information available
12. Ecological Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Information Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>organs/systemic toxicity (repeat exposure)</td>
<td>No information available</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>No information available</td>
</tr>
</tbody>
</table>

13. Disposal Considerations

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste treatment methods</td>
<td>Disposal should be in accordance with applicable regional, national and local laws and regulations. When burning it, use an incinerator which satisfies its technical guidelines (the residence time is 2 seconds or more at a temperature of 800 °C centigrade or more). Contact an authorized industrial waste treatment company for off-site disposal.</td>
</tr>
<tr>
<td>Contaminated packaging</td>
<td>Package: Contact a recycling manufacture</td>
</tr>
</tbody>
</table>

14. Transport Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>International regulations</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Transport hazard class</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>UN number</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Japanese regulation</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Special precautions in connection with transport or conveyance</td>
<td>Do not store in long term under high temperature or leave outdoors</td>
</tr>
</tbody>
</table>

15. Regulatory information

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local regulation</td>
<td>Japanese regulation Fire Service Act : Designated flammable material (Synthetic resins : Other) Contact NITTO for more information</td>
</tr>
<tr>
<td>Foreign regulation</td>
<td>Contact NITTO for more information</td>
</tr>
<tr>
<td>REACH 7 Article 33 Article SVHC notification (&gt; 0.1 wt. %)</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

16. Other information

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation date</td>
<td>07-Jul-2014</td>
</tr>
<tr>
<td>Revision date</td>
<td>23-Aug-2018</td>
</tr>
<tr>
<td>Version</td>
<td>4</td>
</tr>
<tr>
<td>Key literature references and sources for data</td>
<td>JIS Z 7252 : 2009 Classification of chemicals based on &quot;Globally Harmonized System of Classification and Labelling of Chemicals (GHS)&quot; JIS Z7253 : 2012 Safety data sheet for chemical products -Content and order of sections</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>Contents are based on documents, information and data which are available at this time, but nothing is guaranteed as regards content, physical and chemical properties, hazards. Also precautions are subject to ordinary handling, so please take safety measures as usage in special cases. The regulatory information presented here should not necessarily be considered as all-inclusive. Other local and international regulations may also apply</td>
</tr>
</tbody>
</table>

End of Safety Data Sheet