

## Material Safety Data Sheet

### I. Chemical and Enterprise Identification

1. Product name: thermal conductive silicone film (Thermal Pad).
2. Classification of chemicals: thermal conductive silica gel.
3. Classification of Dangerous Goods: Non-Dangerous Goods.
4. Manufacturer: RND Lab.
5. Date of submission of Material Safety Data Sheet: Jan. 1st, 2019

### II. Composition Information

1. Chemical Category: Mixtures.
2. Physical form: solid elastomer.
3. Colors: panchromatic.
4. Main uses: heat conduction, heat dissipation, insulation, buffer, filling gap.
5. Dangerous components: non-hazardous components.
6. Component Information:

NO	Component	CAS	Ratio
1	Alumina	1344-28-1	80%
2	Silica gel	68083-19-2	19.9%
3	Color paste	25155-30-0	0.1%

### III. Hazards identification

1. Hazardous Category: No hazardous.
2. Hazardous Information: No hazardous.
3. Exposure pathways: skin contact and accidental swallowing.
4. Health hazards (acute effects):  
Eyes: Direct contact may cause slight irritation.  
Skin: Direct contact with skin.  
Inhalation: No effect on respiratory system.  
Intake: Heavy swallowing may cause internal damage.
5. The effect of excessive exposure: Exposure does not produce harmful effects in normal use

## IV. First aid measures

- 1 Eye contact: Flush eyes immediately with water for at least 15 minutes or more. If you feel irritation or eye redness must go to the hospital for treatment.
2. Skin contact: Wash with clean water.
3. Inhalation: Under normal circumstances is unlikely to happen inhalation; if the situation occurs, the parties immediately to fresh air, if not breathing, give artificial respiration or oxygen machine to lose.
- 4 Ingestion: Spit and rinse with water. If you cannot spit it out, and immediately seek medical treatment.

## V. Firefighting measures

1. Combustibility: Non-combustibility (UL94V0).
2. Flash point: Not applicable.
3. Ignition temperature: undetermined.
4. Lower explosive limit: None.
5. Upper explosive limit: None.
6. Risk: No.
7. Extinguishing agent: use dry chemicals, foam or water mist when burning. Use carbon dioxide, dry chemicals or water mist for small fires. Containers exposed to fire can be cooled by water.
8. Special fire extinguishing procedures and equipment: When extinguishing fires involving chemicals, self-contained breathing apparatus and protective clothing should be worn. According to the local emergency plan, decide whether it is necessary to evacuate or isolate the area.
9. Harmful combustion products: carbon monoxide (in the absence of oxygen), formaldehyde, nitric oxide, etc.
10. Fire extinguishing agent forbidden to use: undetermined.

## VI. Operational Disposal and Storage

1. Operational precautions: No special regulations.
2. Storage precautions: Avoid direct sunlight. Cool, sealed storage.
3. Unsuitable packing materials: undetermined.

## VII. Physical and Chemical Properties

1. Physical form: solid.
2. Colors: panchromatic.
3. Odor: No.
4. PH value: not determined.
5. Solubility: insoluble.
6. Boiling point: undetermined.
7. Melting point: undetermined.

8. Flash point: Not applicable.
9. Ignition temperature: undetermined.
10. Explosiveness: No.
11. Oxidation: No.
12. Vapor pressure (25): not measured.
13. Specific gravity: 1.8-3.3g/cm<sup>3</sup>.
14. Octanol/water partition coefficient: not determined.
15. Molecular weight: not determined.

## VIII. STABILITY AND REACTIVITY

1. Stability: stable.
2. Reactivity:  
Conditions for avoiding contact: none.  
Prohibited substance: none.  
Decomposition products: metal oxides, silica, carbon dioxide and trace incomplete combustion of carbides, quartz, etc.  
Polymerization hazards: Polymerization reactions that do not produce hazards.

## IX. Toxicological Data

1. Health hazard: No.
2. Sensitization: None.
3. Mutagenicity: unknown.
4. Reproductive heritability: unknown.
5. Carcinogenicity: unknown.
6. Other health hazard information: no suitable information.

## X. Ecological data

1. Environmental sound and distribution: solid objects, insoluble in water.
2. Environmental impacts: Harmful impacts on aquatic organisms cannot be predicted.
3. Bioaccumulation: Ability of non-bioaccumulation.
4. Impact on wastewater treatment plants: Harmful effects on bacteria cannot be predicted.

## XI. Waste disposal

1. Waste disposal methods of products: Waste disposal in accordance with local regulations.
2. Disposal methods of packaging waste: Disposal according to local regulations.

## XII. Transportation information

1. Highway and railway transportation: Transport according to the requirements of non-dangerous goods.
2. Sea transportation (IMDG): Not IMDG Code.

3. Air transportation (IAIAIA): It is not regulated by IAIA.

#### XIII. Regulation Information

1. Applicable Regulations: Safe use of chemicals in the workplace, and relevant provisions are made for safe use, production, storage and transportation, transportation, handling and other aspects of chemical dangerous goods.

2. Chemical warehouses:

MITI: All ingredients are included in ENCS or other exemptions.

AICS: One or more ingredients are not listed or exempted.

TSCA: All chemical constituents in this article are listed in the TSCA Chemicals Catalogue or exempted from the TSCA Chemicals Catalogue.

KECL: No one or more ingredients are listed or exempted or confirmed.

EINECS: Not determined.

DSL: The chemical constituents in this article are not listed in the DSL chemical substances list.

#### XIV. Other information

1. This product is developed and manufactured for industrial use only. For medical or other special applications, the product shall be used after performing the test and meeting the safety standards. It cannot be used for human implantation, transplantation and other aspects. Residues may have an impact on the body.

2. Other information (address, telephone, website information) is for reference only.

**User's Note: This information does not belong to the scope of the manual. But to provide representative and valuable concepts, the recommended industrial hygiene and safety procedures in this paper firmly believe that they meet the requirements. Reading this information will help to understand the characteristics of the product and the matters needing attention in its use.**