Safety Data Sheet (SDS)

Version: V2.0 Revision Date: 2025-10-24

Section 1 - Chemical Product and Company Identification

1.1Product Identifier

Product Name: Transparent Silicone Rubber (Part A & Part B)

Synonyms: Transparent Liquid Silicone

Mix Ratio: A:B = 10:1 (by weight)

Product Code: RTV-52XX Series

1.2 Application

Identified Uses: Industrial and professional use, primarily for making high-precision, low-shrinkage flexible molds, prototyping, etc.

Uses Advised Against: Strictly prohibited for any medical, human implantation, or applications involving continuous contact with mucous membranes or broken skin.

1.3 Details of the Supplier

Company Name: Shenzhen MinghuiLink Silicone Co., Ltd.

Address: A22, 2nd Floor, Dongmeng Building, No. 690 Minzhi Avenue, Xinniu Community, Minzhi Sub-district, Longhua District, Shenzhen, Guangdong, China

Postal Code: 518131

Telephone: +86-15899753674

Email: info@siliconeab.com

1.4 Emergency Telephone Number

China: +86-0532-83889090 (National Registration Center for Chemicals)

Emergency Contact: +86-15899753674

EU: 112 (General Emergency Number)

Section 2 - Hazards Identification

2.1 Classification of the Substance or Mixture (GHS Classification)

This product is a two-component kit, and the hazard classifications for each component are different.

2.2 Part A (Base Rubber)

GHS Hazard Class: According to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), this component is not classified as a hazardous substance.

GHS Label Elements:

- **Hazard Pictograms:** N/A
- **Signal Word:** N/A
- **Hazard Statements:** N/A

2.3 Part B (Platinum Catalyst)

GHS Hazard Class:

- Skin Sensitization - Category 1 (H317)

GHS Label Elements, Including Precautionary Statements:

Pictograms: 

Signal Word: Warning

Hazard Statements:

- H317: May cause an allergic skin reaction.

Precautionary Statements:

- **Prevention:**
  - P261: Avoid breathing vapor/spray.
  - P264: Wash hands thoroughly after handling.
  - P280: Wear protective gloves/protective clothing/eye protection/face protection.
- **Response:**
  - P302+P352: IF ON SKIN: Wash with plenty of water and soap.
  - P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
  - P337+P313: If eye irritation persists: Get medical advice/attention.
  - P362+P364: Take off contaminated clothing and wash it before reuse.
- **Disposal:**
  - P501: Dispose of contents/container to an approved waste disposal plant.

2.4 Cured Silicone Rubber (Part A + Part B Mixed and Cured)

Not classified as hazardous. The cured product is a chemically stable, inert elastomer.

2.5 Hazards Not Otherwise Classified (HNOC)

Spilled liquid material poses a serious slip hazard. Ensure spill area is well-ventilated and prevent entry into drains.

Although the platinum content in Part B is very low, a small amount of hydrogen gas may be generated under certain conditions, especially when in contact with water, alcohols, acids, bases, or certain metal compounds (e.g., zinc, aluminum) in a sealed container.

Section 3-Composition/Information on Ingredients

3.1 Part A (Base Rubber) Composition Information

Chemical Composition	CAS No.	EC#	Weight (%)
Methylvinylpolysiloxane	68037-87-6	802-265-5	60-70
Silica	7631-86-9	231-545-4	15-20
Dimethyl siloxane	63148-62-9	613-156-5	10-15
Methylhydrogenpolysiloxane	63148-57-2	613-152-3	2-5

3.2 Part B (Platinum Catalyst) Composition Information

Chemical Composition	CAS No.	EC#	Weight (%)
Siloxanes and Silicones, di-Me, vinyl group-terminated	68083-19-2	614-275-5	99.5-99.9
Platinum	68478-92-2	270-844-4	0.1-0.5

Section 4 -First Aid Measures

4.1 Description of First-Aid Measures

Inhalation: If vapors or aerosols from heating or atomizing are accidentally inhaled, move the person to fresh air immediately. Keep the airway open. If symptoms of discomfort occur, seek medical attention immediately.

Skin Contact: Immediately wash the affected area thoroughly with plenty of running water and soap. If an allergic reaction occurs (e.g., rash, itching, redness), seek medical attention immediately.

Eye Contact: Immediately flush with plenty of running water for at least 15 minutes, lifting the upper and lower eyelids occasionally. If contact lenses are worn and can be easily removed, remove them immediately. Continue to rinse and seek immediate medical attention.

Ingestion: Do not induce vomiting. Rinse mouth with water, seek immediate medical help.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Acute Effects: Under normal conditions of use, no significant acute health effects are expected from Part A. Part B causes serious eye irritation and skin irritation, and may cause an allergic skin reaction (rash).

Delayed Effects: Repeated or prolonged exposure to Part B may cause skin sensitization.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically. When treating cases of skin contact with Part B, the possibility of sensitization by platinum compounds should be considered.

Section 5 -Fire Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Alcohol-resistant foam, dry powder, carbon dioxide (CO_2), or water spray can be used.

Unsuitable Extinguishing Media: High-pressure water stream, which may spread the fire.

5.2 Special Hazards Arising from the Substance or Mixture

This product is not flammable, but it will burn under fire conditions. Combustion may produce carbon monoxide (CO), carbon dioxide (CO_2), silicon oxide fumes, and trace amounts of formaldehyde.

5.3 Advice for Firefighters

Protective Equipment: Firefighters must wear a positive-pressure self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing.

Fire-Fighting Procedures: Use water spray to cool unopened containers. Prevent fire-fighting water from entering drains or watercourses. When dealing with fires involving large quantities of Part B, ensure ventilation to prevent hydrogen gas accumulation.

Section 6-Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

For Non-Emergency Personnel: Evacuate non-essential personnel to a safe area. Avoid contact with spilled material. Ensure the spill area is well-ventilated.

For Emergency Responders: Wear appropriate Personal Protective Equipment, including chemical-resistant gloves, safety goggles, and respiratory protection when necessary.

6.2 Environmental Precautions

Prevent spillage from entering sewers, surface water, or groundwater systems. If a large spill occurs, notify local environmental authorities immediately.

6.3 Methods and Material for Containment and Cleaning Up

Small Spills: Use inert absorbent material (e.g., sand, diatomaceous earth, sawdust) to absorb the spill and collect it into a labeled container for disposal.

Large Spills: Construct a dike or trench for containment. Transfer the liquid into a dedicated container using a pump. For the remaining residue, follow the same procedure as for small spills.

After Cleanup: Wash the spill area thoroughly with water and detergent to eliminate the slip risk.

Section 7 -Handling and Storage

7.1 Precautions for Safe Handling

Technical Measures: Handle in a well-ventilated area. Wear personal protective equipment as described in Section 8.

Handling Precautions: Avoid contact with skin and eyes. Keep containers sealed. When handling Part B, keep away from water, moisture, acids, bases, and other incompatible materials.

Hygiene Measures: Do not eat, drink, or smoke in the work area. Wash hands thoroughly with soap and water after handling.

Cure Inhibition Note: Contact with sulfur, tin, and amine-containing compounds must be avoided as these substances will inhibit the activity of the platinum catalyst.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a cool, dry, well-ventilated warehouse, away from heat sources, sparks, and open flames. Keep containers tightly closed. Recommended storage temperature is between 10-30°C.

Incompatible Materials: Strong oxidizing agents, water, alcohols, acids, bases, certain metals and their compounds.

Section 8-Exposure Controls/Personal Protection

8.1 Control Parameters

Chemical Composition	CAS No.	ACGIH	NIOSH	OSHA
Methylvinylpolysiloxane	68037-87-6	N/A	N/A	N/A
Silica	7631-86-9	N/A	N/A	N/A
Dimethyl siloxane	63148-62-9	N/A	N/A	N/A
Methylhydrogenpolysiloxane	63148-57-2	N/A	N/A	N/A

Siloxanes and Silicones, di-Me, vinyl group-terminated	68083-19-2	N/A	N/A	N/A
Platinum	68478-92-2	N/A	N/A	N/A

8.2 Exposure Controls

Engineering Controls: Prioritize the use of engineering controls. For liquid handling, good general ventilation is usually sufficient.

Personal Protective Equipment (PPE):

- **Respiratory Protection:** Not required under normal handling with good ventilation. If operations generate aerosols or vapors, a certified respirator should be worn.
- **Hand Protection:** It is recommended to wear protective gloves made of chemical-resistant materials such as nitrile or butyl rubber to prevent skin irritation and sensitization.
- **Eye Protection:** Wear safety glasses with side shields. If there is a risk of splashing, chemical safety goggles should be worn.
- **Skin and Body Protection:** Wear standard work clothing to minimize skin exposure.

Section 9 -Physical and Chemical Properties

Property	Part A (Base Rubber)	Part B (Platinum Catalyst)
Appearance & State	Paste-like liquid, transparent	Low-viscosity liquid, clear
Odor	Odorless	Slight characteristic odor
Flash Point	>100.0℃ (Closed Cup)	>100.0℃ (Closed Cup)
Viscosity (@25℃)	20,000-100,000 mPa·s	< 300 mPa·s
Specific Gravity	Approx. 1.05-1.20g/cm^3	Approx. 0.97-1.05g/cm^3
Solubility	Insoluble in water	Insoluble in water

Section 10-Stability and Reactivity

10.1 Reactivity

Part A: Not classified as a reactivity hazard under normal conditions.

Part B: No data available.

10.2 Chemical Stability

The product is chemically stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions

Part A: Hazardous polymerization will not occur under normal conditions of use and storage.

Part B: No data available.

10.4 Conditions to Avoid

Avoid extreme high temperatures, sources of ignition, and contact with all incompatible materials.

10.5 Incompatible Materials

Strong oxidizing agents, water, alcohols, acids, bases, amines, tin compounds, sulfur compounds, metal powders and metal compounds.

10.6 Hazardous Decomposition Products

Does not decompose under normal conditions. Under high-temperature conditions such as a fire, thermal decomposition will occur, producing hazardous substances such as carbon monoxide, carbon dioxide, silica fumes, and trace amounts of formaldehyde.

Section 11-Toxicological Information

11.1 Acute Toxicity

Chemical Composition	CAS No.	LC50/LD50
Methylvinylpolysiloxane	68037-87-6	LD50 Rat (oral): > 5000 mg/kg
Silica	7631-86-9	LD50 Rat (oral): > 5000 mg/kg
Dimethyl siloxane	63148-62-9	LD50 Rat (oral): > 5000 mg/kg
Methylhydrogenpolysiloxane	63148-57-2	LD50 Rat (oral): > 2000 mg/kg
Siloxanes and Silicones, di-Me, vinyl group-terminated	68083-19-2	LD50 Rat (oral): > 5000 mg/kg
Platinum	68478-92-2	No data available.

11.2 Skin Corrosion/Irritation

Part A: Not expected to cause significant skin irritation.

Part B: Prolonged contact may cause mild skin irritation.

11.3 Serious Eye Damage/Irritation

Part A: No data available.

Part B: Not expected to cause serious eye irritation, but direct contact may cause temporary discomfort.

11.4 Respiratory or Skin Sensitization

Part A: No data available.

Part B: Contains a platinum complex catalyst, which may cause an allergic skin reaction (skin sensitizer, GHS Category 1).

11.5 Germ Cell Mutagenicity

No data available.

11.6 Carcinogenicity

No data available.

11.7 Reproductive Toxicity

No data available.

11.8 Specific Target Organ Toxicity

- **Single Exposure:** No data available.
- **Repeated Exposure:** No data available.

Section 12-Ecological Information

12.1 Toxicity

Part A: Not expected to be acutely toxic to aquatic organisms. However, direct release to the environment should be avoided.

Part B: No data available.

12.2 Persistence and Degradability

Part A: The silicone polymer components in the product are not readily biodegradable but are persistent in the environment.

Part B: No data available.

12.3 Bioaccumulative Potential

Part A: Certain low molecular weight cyclic siloxane impurities may have bioaccumulative potential.

Part B: Low bioaccumulation potential.

12.4 Mobility in Soil

Part A: The product is insoluble in water, and its mobility in soil is expected to be low.

Part B: Very high mobility in soil.

Section 13-Disposal Considerations

Uncured Product: Should be disposed of as chemical waste. Must comply with all applicable local, state, and federal regulations. Do not discharge the product directly into sewers.

Cured Product: Fully cured silicone rubber is an inert, non-hazardous solid waste and can be disposed of as general industrial or commercial trash in accordance with local regulations.

Contaminated Packaging: Empty containers contaminated by the product should be treated with the same requirements as the product itself.

Section 14-Transport Information

According to international and domestic transport regulations (DOT, IATA, IMDG), both Part A and Part B of this product are not classified as dangerous goods for transport.

UN Number: N/A.

UN Proper Shipping Name: Not Regulated.

Transport Hazard Class(es): N/A.

Packing Group: N/A.

Environmental Hazards: No.

Transport Precautions: Ensure containers are sealed and free of leaks during transport.

Section 15-Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical Composition	CAS No.	TSCA	IECSC	DSL/NDSL	EINECS/ ELINCS/ NLP
Methylvinylpolysiloxane	68037-87-6	Listed	Listed	Listed DSL	Listed
Silica	7631-86-9	Listed	Listed	Listed DSL	Listed
Dimethyl siloxane	63148-62-9	Listed	Listed	Listed DSL	Listed
Methylhydrogenpolysiloxane	63148-57-2	Listed	Listed	Listed DSL	Listed
Siloxanes and Silicones, di-Me, vinyl group-terminated	68083-19-2	Listed	Listed	Listed DSL	Listed

Platinum	68478-92-2	Listed	Listed	Listed DSL	Listed

Section 16 - Other Information

Date of Preparation or Last Revision: 2025-10-24

Explanation of Abbreviations:

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service

EC#: European Chemical Inventory Number

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

HNOC: Hazard Not Otherwise Classified

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

NIOSH: National Institute for Occupational Safety and Health

OEL: Occupational Exposure Limit

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

PG: Packing Group

PPE: Personal Protective Equipment

PVC: Polyvinyl Chloride

REL: Recommended Exposure Limit

RTV: Room Temperature Vulcanizing

SCBA: Self-Contained Breathing Apparatus

SDS: Safety Data Sheet

TLV: Threshold Limit Value

TSCA: Toxic Substances Control Act

TWA: Time-Weighted Average

UN: United Nations

Disclaimer: The information in this Safety Data Sheet is, to the best of our knowledge and belief, accurate as of the date of its publication. The information provided is intended only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and should not be considered a warranty or quality specification. It is the user's own responsibility to determine whether this information is suitable for the user's particular purpose.