

101-700, 101-701

DOW CORNING

PRODUCT SAFETY DATA SHEET

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DOW CORNING(r) 732 MULTI PURPOSE SEALANT, CLEAR

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

1.1 Product Name:	DOW CORNING(r) 732 MULTI PURPOSE SEALANT, CLEAR	
1.2 Use:	Sealant and adhesive.	
1.3 Address:	Dow Corning Europe 62, Rue General De Gaulle 1310 La Hulpe Brussels Belgium	
1.4 Service:	Dow Corning (Reading)	Tel: +44 1189507251
1.5 Emergency:	Dow Corning (Barry, GB 24h)	Tel: +44 1446732350
	Dow Corning (Brussels, B)	Tel: +32 2 6552111
1.6 Health & Safety Information:	Health, Environment and Regulatory Affairs Department, Dow Corning, Brussels, B.	Tel: +32 2 6552523 Tel: +32 2 6552304

2. COMPOSITION & INFORMATION ON INGREDIENTS

2.1 Chemical characterisation: Silicone elastomer. (Preparation)
2.2 HAZARDOUS INGREDIENTS¹

Name	CAS No.	%(w/w)	Symbols & Health Risk Phrases
Acetoxysilane	Mixture.	~5	CORROSIVE. (C) R34 Causes burns.
Silica (amorphous)	7631-86-9	~10	

¹According to Commission Directive 88/379/EEC (Article 3 (6a)).

3. HAZARD IDENTIFICATION

Irritating to eyes.
Irritating to skin.

4. FIRST AID MEASURES

4.1 Skin: Wipe off and wash with soap and water.
4.2 Eyes: Flush with water for 15 minutes. Obtain medical attention immediately.
4.3 Inhalation: Remove to fresh air.
4.4 Ingestion: Not applicable.
4.5 Other first aid information: None known.

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5. FIRE FIGHTING MEASURES

- 5.1 Extinguishing media:* Carbon dioxide, foam, dry powder or fine water spray.
- 5.2 Unsuitable extinguishing media:* None known.
- 5.3 Unusual firefighting hazards:* None known.
- 5.4 Special firefighting procedures:* None known.
- 5.5 Other recommendations:* None known.
- 5.6 Combustion products:* Metal products. Silica, carbon dioxide and traces of incompletely burned carbon products. Formaldehyde.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions:* Wear proper protective equipment. Avoid eye contact. Avoid prolonged or repeated skin contact. Do not breathe vapour.
- 6.2 Precautions to protect the environment:* None established, do not allow large quantities to enter drains.
- 6.3 Cleanup procedures:* Scrape up and place in a container fitted with a lid.

7. HANDLING AND STORAGE

- 7.1 Handling precautions:* Local ventilation is recommended. General ventilation is required. Avoid eye contact. Avoid prolonged or repeated skin contact. Do not breathe vapour.
- 7.2 Storage:* Keep in the original container.
- 7.3 Unsuitable packaging materials:* None known.
- 7.4 Incompatibilities:* None known.
- 7.5 Other information:* None known.

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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Exposure controls: Refer to section 7

8.2 Exposure controls for hazardous components.

Name	CAS No.	Exposure limits ¹
Acetoxysilane	Mixture.	10 ppm (OES,8hr TWA). 15 ppm (OES,15min STEL) as acetic acid.
Silica (amorphous)	7631-86-9	6mg/m ³ (TWA tot.inhal.dust). 3mg/m ³ (TWA,respirable dust).

8.3 Personal protective equipment:

Respiratory: An acid vapour mask should be worn if the product is used in large quantities, confined spaces, or other situations where the TLV is likely to be approached or exceeded.

Hand: Rubber or plastic gloves should be worn, where repeated or prolonged contact can occur.

Eye: Safety glasses.

Skin: Additional protective equipment is not normally required

Industrial Hygiene: Wash after handling, especially before eating, drinking or smoking. Exercise good industrial hygiene practice.

¹According to Health and Safety executive document EH40.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance:

Form: Paste. **Colour:** Colourless. **Odour:** Acetic acid.

9.2 Safety related information

pH:	Not determined.
Boiling point/boiling range:	-
Melting point/melting range:	Not determined.
Flashpoint:	Not applicable.
Flammability (solid, gas):	Not determined.
Autoflammability:	Not determined.
Explosive Properties:	Not determined.
Oxidising properties:	Not determined.
Vapour pressure:	Not determined.
Specific gravity:	~1.04
Solubility in water:	<0.10% w/w 10°C
Solubility in fat:	Not determined.
Oil/water partition coefficient:	Not determined.
Other data:	
Vapour density (air = 1):	-
Evaporation rate (ethyl ether = 1):	<1
Viscosity:	Not determined.
% Volatiles:	Not determined.
Molecular weight:	Not determined.

The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

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10. STABILITY AND REACTIVITY

10.1 Stability: Stable.

10.2 Reactivity:

Conditions to avoid: None known.

Materials to avoid: Cures in the presence of water or moisture, releasing a small amount of acetic acid.
Can react with strong oxidising agents.

Hazardous decomposition products: Product may emit formaldehyde vapours at temperatures above 150°C in the presence of air.

11. TOXICOLOGICAL INFORMATION

Possible Health Effects.

Skin: ³ Irritant.

Eyes: ³ Irritant.

Inhalation: ³ Mildly irritating to the respiratory system.

Ingestion: ³ Not known.

Other health hazard information:

Silica is present in a non-crystalline (amorphous) state in this formulation it is not in a respirable form.

LC50: Not determined.

LD50: Not determined.

¹ Based on product test data.

² Based on assessments from related products.

³ This information is based either on test data, extrapolation from tests on similar materials, review of component data, or a combination of these sources.

12. ECOLOGICAL IMPACT

12.1 Elimination ³

Persistence: Not known.

Degradability: Not biodegradable.

12.2 Behaviour in the Aquatic compartment ³

Mobility: Insoluble in water.

Bioaccumulation: Not known.

12.3 Ecotoxicity ³

Aquatic: Ecotoxic effects not known.

Terrestrial: Not known.

¹ Based on product test data.

² Based on assessments from related products.

³ This information is based either on test data, extrapolation from tests on similar materials, review of component data, or a combination of these sources.

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13. WASTE DISPOSAL

13.1 Product disposal: Can be incinerated or land-filled in accordance with local regulations.

13.2 Packaging disposal: Packaging should be disposed of in accordance with regional and/or national regulations.

14. TRANSPORT INFORMATION

UNNO: Not applicable.

LABEL: Not applicable.

ROAD & RAIL TRANSPORT (ADR/RID)

No special packaging or labelling requirements.

SEA TRANSPORT (IMO)

No special packaging or labelling requirements.

AIR TRANSPORT (ICAO)

No special packaging or labelling requirements.

15. REGULATORY INFORMATION

15.1 EEC Supply classification & labelling: ¹

Contains: ACETOXYSILANE

IRRITANT. (Xi)

R36 Irritating to eyes.

R38 Irritating to skin.

S2 Keep out of reach of children.

S28 After contact with skin, wash immediately with plenty of water.

S51 Use only in well-ventilated areas.

15.2 National legislation.

For product information in other EC languages, including appropriate national legislation, please contact the sales office at the above address.

15.3 Other regulations.

German waste number:

-

German water class:

1 - Slight risk of causing water pollution.

German Vbf:

Not applicable.

Ozone depleting chemicals:

No ozone depleting chemicals are present or used in manufacture.

EINECS: All ingredients listed or exempt.

TSCA: All ingredients listed or exempt.

MITI: Not determined.

DSL: All ingredients listed or exempt.

AICS: All ingredients listed or exempt.

¹According to 93/18/EEC as adapted for the 3rd time to technical progress commission directive 88/379/EEC.

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16. OTHER INFORMATION

This product safety data sheet was prepared in compliance with Commission Directive 93/112/EC, 67/548/EEC and 88/379/EEC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.

It is the responsibility of persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces a formulation containing the Dow Corning product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Dow Corning Product Safety Data Sheet to their own Product Safety Data Sheet in compliance with Commission Directive 88/379/EEC.

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state scientific and technical knowledge at the date indicated on the present SDS. Dow Corning shall not be held responsible for any defect in the product covered by this SDS should the existence of such defect not be detectable considering the current state of scientific and technical knowledge.

Please note: for customers sourcing Dow Corning products in regions other than the European Union, the Safety Data Sheet will reflect the requirements of existing local legislation. This may result in a different format and presentation of hazard classification information.

SILASTIC® 732 RTV

ADHESIVE/SEALANT

One part, ready to use, non-slumping paste

FEATURES

- ◆ Non-slumping paste
- ◆ Excellent dielectric properties
- ◆ Simple to apply - one component, room temperature cure
- ◆ Flexible from -60°C to +225°C continuous and +265°C for short periods
- ◆ Excellent resistance to weathering, vibration, moisture and ozone
- ◆ Good chemical stability
- ◆ MIL-A-46106A

APPLICATIONS

- ◆ For many general purpose adhesive applications in the electronics industry. Particularly suitable for assembly operations in bonding cases, cable entries and connectors to ensure that they remain tight.
- ◆ To support large components against vibration.
- ◆ For splicing cables and wires and producing formed-in-place gaskets.

TYPICAL PROPERTIES

Specifications writers: These values are not intended for use in preparing specifications. Please contact Dow Corning Europe, La Hulpe, Belgium before writing specifications on this product.

CTM* ASTM* Property		Unit	Value
As supplied			
Colour			White, black or translucent
Consistency			Non-slump paste
0364	Extrusion rate, 3.2mm orifice at 0.62MPa	g/minute	400
0098	Skin over time	minutes	8
0095	Tack free time	minutes	15
	Cure time, 5mm exposed bead	hours	24
Physical properties, cured 7 days at 25°C and 50% relative humidity			
0022	D792	Relative density at 25°C	1.04
0099	D2240	Durometer hardness, Shore A	30
0137A	D412	Tensile strength	MPa 2.2
0137A	D412	Elongation at break	% 430
0159A	D624	Tear strength - die B	kN/m 5
0432		Volume coefficient of thermal expansion	1/K 9.3×10^{-4}
0224	D2214	Thermal conductivity	W/(m.K) 0.21
Electrical properties, cured 7 days at 25°C and 50% relative humidity			
0114	D149	Dielectric strength	kV/mm 24
0112	D150	Permittivity at 100kHz	2.9
0112	D150	Dissipation factor at 100kHz	0.001
0249	D257	Volume resistivity	ohm.cm 1.5×10^{15}

* CTM : Corporate Test Method, copies of CTM's are available on request.
ASTM : American Society for Testing and Materials.

HOW TO USE

Substrate preparation

SILASTIC 732 RTV

Adhesive/Sealant forms a bond to most clean, dry surfaces of metals, glass, silicone or organic resins and vulcanised silicone rubber. However, bond strength may be inconsistent unless a primer is used. For maximum adhesion, the use of DOW CORNING® 1200 Primer is recommended. For best results:

1. Clean the surface with a solvent (see Handling Precautions), a slightly abrasive pad or a coarse lint-free cloth.
2. Rinse cleaned surface with acetone or methyl ethyl ketone.
3. Apply a thin coat of DOW CORNING 1200 Primer by dipping, brushing or spraying.
4. Allow the primer to dry for about 1 hour, and a relative humidity of 50% or higher.
5. Silicone rubber surfaces should not normally be primed, but only roughened slightly with abrasive paper and rinsed with acetone.

How to apply

Apply SILASTIC 732 RTV

Adhesive/Sealant to the prepared surface in a uniform thickness of 0.25-0.75mm. If the adhesive/sealant is to be used between two surfaces, apply it first to one surface and allow it to establish a uniform contact before putting the other surface in place. When placing the second surface, use enough pressure to displace the adhesive/sealant and any trapped air.

Best adhesion is obtained with an approximately 1.5mm thick glue line. Metal to metal bonds should not overlap more than 25mm. Let the unit stand undisturbed until it cures sufficiently. The odour given off during cure is due to the liberation of acetic acid: it will disappear when the cure is complete.

For information on appropriate dispensing equipment for your application, please contact Dow Corning.

Working and cure time

On exposure to moisture in the air, the surface of SILASTIC 732 RTV Adhesive/Sealant will "skin over" in about 10 minutes at room temperature with 50% relative humidity. Any tooling should be completed before

this "skin" forms. The surface is easily tooled with a spatula. The adhesive/sealant will be tack free in 20 minutes.

Curing continues inward from the surface. In 24 hours (at room temperature and 50% relative humidity), SILASTIC 732 RTV Adhesive/Sealant will cure to a depth of 5mm. Deep sections take several weeks for a complete cure. Cure time is extended at lower humidity levels. This effect becomes pronounced below 20% relative humidity. If both bonded members are impermeable to moisture, as in the case of two metal plates, cure time will depend upon the thickness of the adhesive/sealant and the area under the joint.

For best results, the bonded surfaces should not overlap by more than 25mm.

Compatibility

SILASTIC 732 RTV

Adhesive/Sealant releases a small amount of acetic acid during curing. This may cause corrosion on some delicate electronic equipment, especially in direct contact. Users are advised to check compatibility before use.

HANDLING PRECAUTIONS

A Product Safety Data Sheet should be obtained from your nearest Dow Corning sales office prior to use.

ATTENTION: Before handling, read product information, Product Safety Data Sheets and container labels for safe use, and any physical and/or health hazard information.

Dow Corning neither recommends nor has tested this material for medical or for pharmaceutical end use. Not for human injection.

USABLE LIFE AND STORAGE

When stored at or below 32°C in the original unopened containers
SILASTIC 732 RTV
Adhesive/Sealant has a usable life of 27 months from the date of production.

Dow Corning will guarantee the usable life of SILASTIC 732 RTV Adhesive/Sealant until the date indicated on the packaging. This date is shown by the letters "EXP" (meaning Expiry) followed by 4 digits, which stand for the month (last

day) and year. Example: "EXP 03/99" means use by 31 March 1999.

As SILASTIC 732 RTV

Adhesive/Sealant cures by reaction with moisture in air, keep the container tightly sealed when not in use. A plug of used material may form in the tip of a tube or cartridge during storage. This is easily removed and does not affect the remaining contents.

PACKAGING INFORMATION

SILASTIC 732 RTV

Adhesive/Sealant is available in 90ml tubes, 310ml cartridges, 20 litre pails and 205kg drums.

HEALTH AND ENVIRONMENTAL INFORMATION

Dow Corning has a dedicated team of toxicologists as well as environmental and regulatory affairs specialists located at its European Head Office in Brussels. Dow Corning's Health, Environment and Regulatory Affairs (HERA) Department is available to guide Dow Corning and support its customers in the safe manufacture, distribution, handling and use of its products. If you require further information on specific Dow Corning products, please contact this group at:

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