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MSDS - KEMBOND SSC-RTV ELECTRICALLY CONDUCTIVE ADHESIVE

The data contained in this data sheet is applicable to the **uncured** material only

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1.0 IDENTIFICATION OF THE SUBSTANCE / PREPARATION

1.1 Trade name: KEMBOND SSC-RTV CONDUCTIVE PASTE COMPOUND

1.2 DESCRIPTION: viscous single component silicone material filled with electrically conductive silver-plated copper particles

1.3 FORMULA: Mixture

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2.0 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Symbol(s)	%(W/W)	R-phrase(s)
Silver (Ag)	7440-22-4	-	<25	-
Copper (Cu)	7440-50-8	-	<75	-

3.0 HAZARDS IDENTIFICATION - POTENTIAL HEALTH EFFECTS

3.1 INGESTION:

Low order of toxicity

3.2 SKIN CONTACT:

Prolonged contact may result in skin irritation

3.3 EYE CONTACT:

Causes eye irritation – see note below in section 11 concerning contact lenses

3.4 INHALATION:

No hazard if used as directed – if the cured material is ground or abraded it is recommended that appropriate respiratory protection is used

4.0 FIRST-AID MEASURES

Obtain medical attention in severe cases or if symptoms persist

4.1 INGESTION:

Obtain medical attention

4.2 SKIN CONTACT:

Remove excess with dry cloth or paper towel – then wash with detergent and water

4.3 EYE CONTACT:

Immediately flush eyes with plenty of water for at least 15 minutes and obtain medical attention

4.4 INHALATION:

Remove to fresh air
If not breathing, give artificial respiration and obtain immediate medical attention

5.0 FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Carbon dioxide (CO_2) or dry chemical foam

5.2 SPECIAL FIRE-FIGHTING PROCEDURES:

Wear positive pressure, self-contained breathing apparatus and protective clothing. Combustion of this product and its packaging will generate toxic fumes

5.3 HAZARDOUS COMBUSTION PRODUCTS:

Carbon dioxide, carbon monoxide, silica traces of incompletely burned or semi decomposed carbon compounds

6.0 ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Wear suitable protective clothing, chemical resistant gloves and goggles
Wear appropriate respiratory protection in enclosed areas or if there is insufficient ventilation
Wipe, scrape or soak up in an inert material and put into a container for disposal in accordance with regulations
The container should be sealed, labelled and stored in a cool, well ventilated area to await disposal
Warn other personnel of the spill and instruct them to leave the area.
Wash walking surfaces with detergent and water, after material pickup is complete, to reduce slipping hazard

7.0 HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Avoid breathing vapours; if exposed to high vapour concentration, leave area at once
Avoid contact with skin and eyes
Use only in a well ventilated area
Store in a cool, dry, dark area
Keep container closed when not in use
Do not allow contact with acidic, basic or oxidizing material

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits for methanol

TWA (8 hour exposure limit): 266 mg/m^3 (OES)

STEL (15 minute exposure limit): 333 mg/m^3 (OES)

8.1 ENGINEERING CONTROLS:

Exhaust ventilation
Eye wash stations

8.2 RESPIRATORY PROTECTION:

Only required if the product is used in large quantities and/or in a confined location Otherwise ensure that the material is used in an open and or well ventilated area that prevents any build up of fumes or vapours above the recommended time weighted average (TWA) or maximum short term exposure limits (STEL). If applied engineering controls are inadequate in this respect then appropriate respiratory protection must be worn

8.3 PROTECTIVE GLOVES:

Light weight latex or nitrile if necessary

8.4 EYE AND FACE PROTECTION:

Safety glasses

8.5 OTHER PROTECTIVE EQUIPMENT:

Laboratory coat, apron or good quality disposable protective overalls

8.6 VENTILATION:

Use only in well ventilated area – use mechanical ventilation if required

9.0 PHYSICAL AND CHEMICAL PROPERTIES

[Abbreviations: N/D – not determined / N/A – not applicable]

Appearance	Tan paste
Odour	Slight - alcoholic
pH	N/A
Boiling point	>65^{o}C
Melting point	N/A
Flash point	>100^{o}C
Flammability	N/A
Auto flammability	N/A
Explosive properties	N/A
Density	3.3gcm^{-3}
Solubility in water	Insoluble – immiscible with water
Viscosity	80000 cP (paste)

10.0 STABILITY AND REACTIVITY

10.1 HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS:

Carbon dioxide, carbon monoxide, silicon dioxide, nitrogen oxides, ammonia, methanol hydrocarbons
Methanal (formaldehyde) may be evolved if the material is exposed to temperatures above 150^{o}C

10.2 INCOMPATIBILITY (MATERIALS TO AVOID):

Acidic agents
Basic agents(Bases/alkalies)
Oxidizing agents
Amines
Ammonia gas or ammonia containing solutions
Contact with water will initiate curing process

11.0 TOXILOGICAL INFORMATION

11.1 INGESTION:

Reacts with moisture to form methanol – risk of serious effects at doses above 200mg/kg

11.2 SKIN CONTACT:

Low risk of adverse effects

11.3 EYE CONTACT:

Temporary irritation/discomfort – metal particles could cause minor scratching of eye surface

11.4 INHALATION:

May cause dizziness, drowsiness, confusion, headaches, nausea – risk of unconsciousness at high exposure levels

Silver

Chronic absorption or ingestion of silver metal may cause a condition known as ‘Agyria’. This is where the skin or other body tissues may take on a blue/grey discolouration due to the accumulation of fine silver particles. This may occur as a localised effect on the skin/hands where silver containing materials are frequently handled allowing silver particles to become embedded

NOTE FOR PERSONS WEARING CONTACT LENSES

If skin contact has occurred, traces of silicone resin may remain on the skin for several days, even after thorough washing. Contact lenses should be removed *before* working with this product. The lenses should not be handled again until all traces of silicone resin have been removed from the hands, as the silicone resin could transfer to the contact lenses and cause severe eye irritation

12.0 ECOLOGICAL INFORMATION

No data is available at this time

13.0 DISPOSAL CONSIDERATIONS

Waste material should be disposed of in accordance with local, national and community regulations
Accumulated *cured* waste material may be sent to an appropriate refinery for metal recovery

14.0 TRANSPORT INFORMATION

Classified as a non-flammable solid for the purpose of transportation.
This means that Kembond SSC-RTV is not considered hazardous for transport and therefore there are no special packaging requirements and no restrictions apply to transportation by any method

15.0 REGULATORY INFORMATION

In Great Britain reference should be made to the requirements of the *Control of Substances Hazardous to Health Regulations (COSHH),* the *Management of Health and Safety at Work Regulations,* and the occupational exposure limits detailed in the current edition of *EH40.* Other legislation may also apply. Elsewhere, local, national and community regulations may apply

16. OTHER INFORMATION

This data sheet is a compilation of information obtained from the data sheets supplied by the manufacturers of the materials present in this product. This compilation of data is believed to be reliable, but it is supplied without warranty of any kind and Kemtron Ltd assumes no obligation or liability for its completeness or accuracy. The information may not be valid if the product is mixed with other materials prior to use. The information contained in this data sheet does not constitute the user's own assessment of workplace risk as required by health and safety legislation. The technical data given in section 9 are typical values and not a product specification.