



MATERIAL SAFETY DATA SHEET

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Product name: CONDUCTOSPHERES

1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY / UNDERTAKING

Product name: CONDUCTOSPHERES
Product Code: M-18, M-30, M-40, M-45, M-60
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2. HAZARDS IDENTIFICATION

RISK PHRASES: None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Characterisation : Hollow glass spheres coated with silver.

	Percentage	CAS number	EU number	Hazard	Risk Phrase/Safety Phrase
Glass, oxides, chemicals	>50	65997-17-3	266-046-0	None	S22, S24, S24/25, S26, S28, S39, S51
Silver	<50	7440-22-4	231-131-3	None	

4. FIRST AID MEASURES

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

Skin contact: Immediately flush skin with plenty of soap and water. If signs/symptoms develop, get medical attention.

Eye contact:	Immediately flush eye(s) with copious amounts of water. If signs/symptoms persist seek medical attention.
Ingestion:	Do not induce vomiting unless instructed to do so by medical personnel. Wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.

5. FIRE FIGHTING MEASURES

Explosion data:	Dust potential: This material, like most materials in powder form, is capable of creating a dust explosion.
Extinguishing media:	Suitable: Sand or dry powder type agents specifically designed for powder fires.
Special exposure hazards:	Specific hazard(s): Emits toxic fumes under fire conditions.
Protective equipment:	Fire-fighters exposed to combustion/decomposition products should use a respiratory protective device and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.
Methods for cleaning up:	Evacuate unprotected or untrained personnel from the hazard area. Approved personal protective equipment should be used: respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Vacuum or wet sweeping may be used to avoid dust. Ventilate and wash spill area when clean up is complete.

7. HANDLING AND STORAGE

Advice on safe handling:	This product should only be handled by personnel trained in the handling of potentially hazardous materials. Do not breathe dust. Avoid prolonged or repeated exposure. Care should be taken to prevent the material coming into contact with skin, eyes, mouth and personal clothing. Wash exposed areas thoroughly with soap and water.
Storage conditions:	Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Keep away from heat, sparks and open flame. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Mechanical exhaust required. Safety shower and eye bath.

Exposure Limits: Glass, oxides, chemicals (65997-17-3):
Not listed in the EH40 Exposure Limit Inventory

Silver (in powder form) (7440-22-4):

EU:	Source OEL	Type OEL	Value 0.1mg/m ³
Denmark:	Source OEL	Type TWA	Value 0.01mg/m ³
Germany:	Source TRGS 900	Type OEL	Value 0.1mg/m ³
Norway:	Source	Type OEL	Value 0.1mg/m ³
Sweden:	Source	Type LLV	Value 0.1mg/m ³
Switzerland:	Source OEL	Type OEL	Value 0.1mg/m ³
UK:	Source OEL	Type OEL	Value 0.01mg/m ³

Respiratory Protection: Avoid inhalation of airborne material. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a half facepiece or fullface respirator with P2 particulate filters.

Eye protection: Avoid eye contact. Avoid eye contact with dust or airborne particles. The following should be worn alone or in combination, as appropriate to prevent eye contact: Safety glasses with side shields. Indirect vented goggles.

Skin Protection: Avoid skin contact. Wear protective gloves.

Ingestion: Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with water.

Other protection: General hygiene measures: Wash contaminated clothing before reuse. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical form: Powder with particle size between 1 and 300 microns

Colour:	Silver/grey
Odour:	None
pH:	No data
Specific Gravity:	<1.0 g/cm ³
Viscosity:	No data
Water solubility:	Insoluble

10. STABILITY AND REACTIVITY

Stability:	Stable. Hazardous polymerisation will not occur.
Materials to avoid:	Oxygen, strong acids, strong bases.
Hazardous decomposition:	Products: Silver/silver oxides

11. TOXICOLOGICAL INFORMATION

Silver:

RTECS Number: VW3500000

Signs and symptoms of exposure: May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver). To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Route of exposure: Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion: May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	No data available.
Mobility:	No data available.
Bioaccumulative potential:	No data available.
Persistence and degradability:	No data available.

13. DISPOSAL CONSIDERATIONS

Advice on disposal:	Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.
Contaminated packaging:	Rinse with water and dispose of as waste.

14. TRANSPORT REGULATIONS

RID/ADR:	Non-hazardous for rail/road transport.
ICAO/IATA:	Non-hazardous for air transport.
IMDG:	Non-hazardous for sea transport.

15. REGULATORY INFORMATION

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER:	None	
Risk Phrases::	None	
Safety Phrases:	S22	Do not breathe dust.
	S24/25	Avoid contact with the skin and eyes.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S28	After contact with skin, wash immediately with plenty of soap and water.
	S39	Wear eye protection.
	S51	Use only in well ventilated areas.
Country Specific Information:	Germany WGK: No hazard to waters. ID-Number: 1443 KBwS-Decision	

16. OTHER INFORMATION

Limitations of Use of Product: For industrial or professional use only.

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