

Material Data Safety Sheet

According to (EG) Nr. 1907/2006 (REACH)

Updated:12.04.2011

Silver oxide, extra pure Art. Nr. 31846

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : **Silver oxide**, extra pure

Product Number : 31846

Company:

Gatt-Koller GmbH

Swarovskistrasse 74

A-6067 Absam

Phone: 0043-5223-44216-0

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2. HAZARDS IDENTIFICATION

Label elements

Pictogram



Signal Word DANGER

Hazard statement(s)

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

EUH044 Risk of explosion if heated under confinement.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P301 +

P330 +

P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P305 + P351 + IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

P338 lenses, if present and easy to do. Continue rinsing.

P501 Dispose of contents/ container to an approved waste disposal plant.

(67/548/EWG oder 1999/45/EG)

Symbol: O (Oxidizing), C (Corrosive)

R-phrases: 8-41-44 Contact with combustible material may cause fire. Causes burns. Risk of explosion if heated under confinement.

3. Composition/information on ingredients

Identification and amount of the components:

CAS: 20667-12-3

Molecular weight: 231.74

EC number: 243-957-1

Formula: Ag₂O 4. First aid measures

After inhalation: Fresh air.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After ingestion: make victim drink plenty of water, induce vomiting, summon doctor.

After eye contact: rinse out with plenty of water with the eyelid held wide open. Summon eye specialist.

5. Fire-fighting measures

Suitable extinguishing media: To suit environment.

Special risks: Fire-promoting. Keep away from combustible materials.

Further information: Non-combustible. Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

Person-related precautionary measures: Avoid substance contact.

Environmental precautions: Do not allow to enter sewerage system.

Procedures for cleaning / absorption: Take up dry. Forward for disposal. Clean up. Avoid generation of dusts.

7. Handling and storage

Handling: No further requirements.

Storage: Store tightly closed, dry, cool (below +15°C). Protected from light. Protected from air. Keep away

from flammable organic substances. Keep away from sources of ignition and heat

8. Exposure controls/personal protection

Exposure limit values: (MAK, Germany): 0,01 mg/m³

Exposure controls:

Occupational exposure controls: The personal protective equipment must be selected according to the working place, based on the concentration and amount of the dangerous substance. The supplier should

indicate the stability of the personal protective equipment to chemical reagents.

Respiratory protection: required when dusts are generated.

Hand protection: required

Eye protection: required

Industrial hygiene: Change contaminated clothing. Wash hands after working with substance.

9. Physical and chemical properties

General information:

Form: powder

Colour: brown-black

Odour: odourless

Important health, safety and environmental information:

pH value: ---

Boiling temperature: ---

Flash point: ---

Explosion limits (low): ---

Explosion limits (high): ---

Vapour pressure: ---

Density (20 °C): ---

Solubility in water: (20 °C): 0,0016 g/l

Solubility in:

acids: soluble

ethanol: insoluble

Viscosity: ---

Refractive index: ---

Melting temperature: > 200 °C (decomposes)

Ignition temperature: ---

10. Stability and reactivity

Conditions to be avoided: No information available.

Substances to be avoided: aluminium, magnesium, hydrogen sulfide

, phosphorus, sulfur, ammonia, ammonium compounds, hydrazine and derivatives, carbon monoxide, alkali metals.

Hazardous decomposition products: No information available.

11. Toxicological information

Acute toxicity:

LD₅₀(oral, rat): 2820 mg/kg

Subacute to chronic toxicity:

Teratogenicity: Available data are not enough to value the teratogenicity of the product.

Further toxicological information:

Hazardous properties cannot be excluded, but are relatively improbable due to the low concentration of

the dissolved substance.

Further information:

The following applies to practically insoluble silver compounds: long-term inhalation or ingestion can result

in a persistent discoloration (grey to blue) of the skin and mucous membranes (argyria).

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information Ecotoxic effects: Due to the poor solubility of the product, no harmful effects on plants and/or aquatic

organisms are to be expected when handled and used with due care and attention.

Further ecologic data:

The following applies to silver compounds in general: Ag cations are toxic for aquatic organisms.

Bacterial toxicity: *Ps. putida*: toxic from: 0,006 mg/l

Protozoa toxicity: *U. parduczi*: toxic from: 0,1 mg/l

Daphnia toxicity: *Daphnia magna* EC50: 0,004 mg/l

Algal toxicity:

M. aeruginosa: toxic from: 0,0007 mg/l

Sc. quadricauda: toxic from: 0,009 mg/l

No ecological problems are to be expected when the product is handled and used with due care and attention.

13. Disposal considerations

Product: There are no uniform EU Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EU member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

Packaging: Disposal in compliance with official regulations. Handle contaminated packaging in the same

way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

14. Transport information

Road transport:

UN-No: 3085

ADR class: 5.1 O2 II

Correct technical name: OXIDIZING SOLID, N.O.S.(Silver oxide)

Sea transport:

UN-No: 3085

IMDG class: 5.1 II

EMS-Number: F-A S-Q

Correct technical name: OXIDIZING SOLID, N.O.S.(Silver oxide)

Air transport:

UN-No: 3085

IATA/ICAO class: 5.1 II

Correct technical name: OXIDIZING SOLID, N.O.S.(Silver oxide)

15. Regulatory information

Label elements



Signal Word DANGER

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P338
P501 Dispose of contents/ container to an approved waste disposal plant.

EC-classification: This product is not included in the dangerous substances index with its corresponding

EC index number, so it has been classified according to the annex VI of the 2001/59/EC directive.

Symbol: O (Oxidizing), C (Corrosive)

R-phrases: 8-41-44 Contact with combustible material may cause fire. Causes burns. Risk of explosion if heated under confinement.

S-phrases: 26-39-45-60

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and/or its container must be disposed of as hazardous waste.

EC-Index-No: ---

German Regulations

Water pollution class 2 (polluting substance) VwVwS Annex. 3 Id-Nr. 3335

Storage class VCI 5.1 A 16. Other information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used

only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Gatt-Koller GmbH shall not be held liable for any

damage resulting from handling or from contact with the above product.

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

Gatt-Koller GmbH

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