Material Data Safety Sheet

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

Updated:12.04.2011

Silver nitrate Art. Nr. 30222

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

Product name : **Silver nitrate**
Product Number : 30222
Company:
Gatt-Koller GmbH
Swarovskistrasse 74
A-6067 Absam
Phone: 0043-5223-44216-0
Fax: 0043-5223-43216
Emergency Phone: 0049-551-19240

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.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309 + P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

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

(67/548/EWG oder 1999/45/EG)
Symbol: C (Corrosive), N (Dangerous for the environment)
R-phrases: 34-50/53 Causes burns. Very toxic to aquatic organisms, may cause long-term adverse effects in
the aquatic environment.

3. Composition/information on ingredients
Identification and amount of the components:
CAS: 7761-88-8
Molecula weight:169.87
EC index no,:047-001-00-2
EC number:231-853-9
Formula: AgNO3

4. First aid measures
After inhalation: Fresh air. Summon doctor.
After skin contact: wash off with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.
After ingestion: make victim drink plenty of water, avoid vomiting (risk of perforation!) . Immediately summon
doctor. Do not attempt to neutralize.
After eye contact: rinse out with plenty of water for at least 10 minutes with the eyelid
held wide open. Immediately summon eye specialist.
5. Fire-fighting measures
Suitable extinguishing media: To suit environment.
Special risks: Non-combustible. Has a fire-promoting effect due to release of oxygen. Formation of dangerous vapours possible in event of fire.
The following may develop in event of fire: nitrogen oxides.
Special protective equipment for fire fighting: Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.
Further information: Contain escaping vapours with water. Prevent fire-fighting water from entering surface
water or groundwater.
6. Accidental release measures
Person-related precautionary measures: Avoid substance contact. Avoid generation of dusts; do not inhale dusts.
Environmental precautions: Do not allow to enter sewerage system.
Procedures for cleaning / absorption: Take up dry. Forward for disposal. Clean up.
7. Handling and storage
Handling: No further requirements.
Storage: Store tightly closed and dry. Away from combustible materials and sources of ignition and heat. Protected from light. Storage temperature: no restrictions.
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
Skin protection: Apply skin- protective barrier cream.
Industrial hygiene: Immediately change contaminated clothing. Wash hands and face after working with substance.
9. Physical and chemical properties
General information:
Form: crystals
Colour: colourless
Odour: odourless
Important health, safety and environmental information:
pH value: (100 g/l H2O, 20 ºC) 5,4 - 6,4
Boiling temperature: 444 ºC (decomposes)
Flash point: ---
Explosion limits (low): ---
Explosion limits (high): ---
Vapour pressure: ---
Density (20 °C): ---
Solubility in water: (20 °C): 2160 g/l
Solubility in:
ethanol: 20,8 g/l
ether: slightly soluble
Viscosity: ---
Refractive index: ---
Melting temperature: 212 ºC
Ignition temperature: ---
10. Stability and reactivity
Conditions to be avoided: No information available.
Substances to be avoided: nonmetals, organic substances, alkali hydroxides, acetylides, acetylene, aldehydes, nitriles, ammonia/alcohols, ammonium compounds, combustible substances, hydrazine and

derivatives, carbides, organic nitro compounds, heat (decomposition), magnesium (in powder form)/water, alcohols.
Hazardous decomposition products: In event of fire: see chapter 5.
11. Toxicological information
Acute toxicity:
The literature data available to us do not conform with the labelling prescribed by the EC. The EU has dossiers
which have not been published.
LD50(oral, rat): 1173 mg/kg
Specific symptoms in animal studies:
Eye irritation test (rabbit): burns
Subacute to chronic toxicity:
Mutagenicity:
Bacterian mutagenicity: Salmonella typhimurium: negative
Bacterian mutagenicity: E. Coli: negative
Bacterian mutagenicity: Ames-Test: negative
Teratogenicity: Available data are not enough to value the teratogenicity of the product. Available data are
not enough to value the alteration of the reproductive capacity.
Further toxicological information:
After skin contact: burns
After eye contact: burns, burns of mucous membranes. Risk of corneal clouding.
After ingestion: (large amounts): vomiting, decomposition, death, spasms (gastrointestinal tract).
Further information:
The following applies to soluble silver compounds in general: Only very slightly absorbable via the gastrointestinal tract. Strong irritations after contact with eyes and skin.
The following applies to nitrites/nitrates in general:
After absorption of large quantities: methaemoglobinaemia
Further hazardous properties cannot be excluded.
12. Ecological information
Ecotoxic effects: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Even at low concentration forms caustic mixtures with water.
Fish toxicity:
L.idus LC50 : 0,029 mg/l /96h.
Onchorhynchus mykiss CL50 : 0,006 mg/l /96h.
Daphnia toxicity: Daphnia magna EC50: 0,002 mg/l /48h.
Algeal toxicity: Scenedesmus Sp. IC50 : 0,008 mg/l /8d
Bacterial toxicity: Ps. putida EC10 : 0,006 mg/l /16h
Protozoa toxicity: EC10 : 0,003 mg/l /48h.
Bioaccumulative potential: Bioaccumulation
Bioconcentration factor: 200
Persistence and degradability: Methods for determination of biodegradability can not be applied to inorganic substances.
Further ecologic data:
Do not allow to enter waters, waste water, or soil!
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: 1493
ADR class: 5.1 O2 II
Correct technical name: SILVER NITRATE
Sea transport:
UN-No: 1493
IMDG class: 5.1 II

EMS-Number: F-A S-Q
Correct technical name: SILVER NITRATE
Air transport:
UN-No: 1493
IATA/ICAO class: 5.1 II
Correct technical name: SILVER NITRATE

15. Regulatory information

Label elements

Signal Word DANGER

Hazard statement(s)

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

EC-classification: This product has been included in the dangerous substances index with its corresponding EC index number, so it has been classified according to the 67/548/EEC directive and its later
adaptations.
Symbol: C (Corrosive), N (Dangerous for the environment)
R-phrases: 34-50/53 Causes burns. Very toxic to aquatic organisms, may cause long-term adverse effects in
the aquatic environment.
S-phrases: 26-36/37/39-45-60-61 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if
you feel unwell, seek medical advice immediately (show the label where possible) This material and its container
must be disposed of as hazardous waste. Avoid release to the environment.Refer to special instructions/Safety
data sheets.
EC-Index-No: 047-001-00-2
German regulations:
Water pollution class: 3 (strong polluting substance)
Storage class VCI: 5.1 B

16. Other information

Reason for the revision: General update.
Date: 02/05/2007
The information supplied in this data sheet, is based on the present state of our knowledge. The purpose of this information, is only to describe the security measures to follow in the handling of the product. Therefore it does not represent a guarantee about the properties of the product.

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