SECTION1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code : ARGENTO NITRATO
Trades code : 100153
Chemical Name: silver nitrate CAS: 7761-88-8 - EC No: 231-853-9 - Index No: 047-001-00-2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Photographic Process
Sectors of use:
Professional use[SU22]
Product category:
Plant Protection Products
Process categories:
Mixing or blending in batch processes for formulation of preparations* and ar- ticles (multistage and/or significant con- tact)[PROC5]
Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

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1.4. Emergency telephone number

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SECTION2. Hazards identification

2.1. Classification of the substance or mixture

CAS 7761-88-8 CEE 047-001-00-2 EINECS 231-853-9
2.1.1 Classification according to Regulation (EC) No 1272/2008:
Pictograms:
GHS03, GHS05, GHS09
Hazard Class and Category Code(s):
Ox. Sol. 1, Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1
Hazard statement Code(s):
H271 - May cause fire or explosion; strong oxidiser.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H400 - Very toxic to aquatic life. (Acute toxicity M-factor = 100)
H410 - Very toxic to aquatic life with long lasting effects. (Acute toxicity M-factor = 100)
The product has strong oxidizing properties can cause fire or explosion
Corrosive product: causes severe skin burns and eye damage.
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.
The product is dangerous for the environment as it is very toxic to aquatic organisms

The product is dangerous to the environment as it is very toxic to aquatic life with long lasting effects

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:
Pictogram, Signal Word Code(s):
GHS03, GHS05, GHS09 - Danger
Hazard statement Code(s):
H271 - May cause fire or explosion; strong oxidiser.
H314 - Causes severe skin burns and eye damage.
H410 - Very toxic to aquatic life with long lasting effects. (Acute toxicity M-factor = 100)
Supplemental Hazard statement Code(s):
not applicable
Precautionary statements:
Prevention
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 - Keep away from clothing and other combustible materials.
P260 - Do not breathe dust, fume, gas, mist, vapours, spray.
P264 - Thoroughly wash clothing after use.
P273 - Avoid release to the environment.
P280 - Wear protective gloves protective clothing eye protection face protection.
P283 - Wear fire resistant or flame retardant clothing.
Response
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P306+P360 - IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P310 - Immediately call a doctor if symptoms persist
P321 - Specific treatment to see instructions on the safety data sheet
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use appropriate means to extinguish.
P371+P380+P375 - In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P391 - Collect spillage.
Storage
P405 - Store locked up.
P420 - Store separately.
Disposal
P501 - Dispose of contents and container in accordance with the laws in force
Contains:
silver nitrate

2.3. Other hazards

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII
The use of this chemical agent involves the obligation of "risk assessment" by the employer in accordance with Dlgs. April 9, 2008 # 81. Workers exposed to this chemical agent should not be subjected to health surveillance if the results of the risk assessment show that, in relation to the type and quantity of hazardous chemical agent and that agent exposure frequency and mode, you just a "moderate risk" for the health and safety of workers and that the measures laid down in the decree are sufficient to reduce the risk.

SECTION3. Composition/information on ingredients

3.1 Substances

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration	Classification	Index	CAS	EINECS	REACh
silver nitrate	100%	Ox. Sol. 2, H272; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Acute toxicity M-factor = 100	047-001-00-2	7761-88-8	231-853-9	

3.2 Mixtures

Irrilevant

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.
Direct contact with skin (of the pure product).:
Take contaminated clothing Immediately off.
In case of contact with skin, wash immediately with water.
Consult a physician immediately
Direct contact with eyes (of the pure product).:
Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.
Ingestion:
Drink water with egg white; do not give bicarbonate.
Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

Immediately call a doctor if symptoms persist

SECTION5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
In the case of fire use: water
Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.
Extinguishing means to avoid:
Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Leave the area surrounding the spill or release. Do not smoke
Wear mask, gloves and protective clothing.
6.1.2 For emergency responders:
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Provision of sufficient ventilation.
Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill
Inform the competent authorities.
Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Rapidly recover the product, wear a mask and protective clothing
Recover the product for reuse, if possible, or the removal.
6.3.2 For cleaning up:
To clean the floor and all objects contaminated by this material use water
After wiping up, wash with water the area and materials involved
6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION7. Handling and storage

7.1. Precautions for safe handling

Wear protective gloves protective clothing eye protection face protection.
Use extreme caution when handling the product. Avoid shock or friction.
In residential areas do not use on large surfaces.
Do not smoke at work
At work do not eat or drink.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Keep away from combustible materials.
Keep away from open flames, sparks and heat sources. Avoid direct sunlight exposure.

7.3. Specific end use(s)

Professional use:

Photographic and cinematographic treatment

SECTION8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:
silver nitrate:
TLV (as Ag): 0.01 mg/m3 (ACGIH 1997).

8.2. Exposure controls

Appropriate engineering controls:
Professional use:
Not established
Individual protection measures:
(a) Eye / face protection
Wear mask
(b) Skin protection
(i) Hand protection
When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)
(ii) Other
When handling the pure product wear full protective skin clothing.
(c) Respiratory protection
Use adequate protective respiratory equipment (EN 14387:2008)
(d) Thermal hazards
No hazard to report
Environmental exposure controls:
Related to contained substances:
silver nitrate:
Do not let this chemical agent contaminate the environment.

SECTION9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Powder	
Odour	Not determined	
Odour threshold	undefined	
pH	Not determined	pH METRO
Melting point/freezing point	Irrilevant	
Initial boiling point and boiling range	Not determined	
Flash point	non flammable	ASTM D92
Evaporation rate	Not determined	
Flammability (solid, gas)	Irrilevant	
Upper/lower flammability or explosive limits	undefined	
Vapour pressure	Not determined	
Vapour density	Not determined	
Relative density	4.35 gr / cm3	
Solubility	in water	
Water solubility	Complete	

Physical and chemical properties	Value	Determination method
Partition coefficient: n-octanol/water	Not determined	
Auto-ignition temperature	Not determined	
Decomposition temperature	Not determined	
Viscosity	not determined	
Explosive properties	not explosive	
Oxidising properties	non-oxidizing	

9.2. Other information

No data available.

SECTION10. Stability and reactivity

10.1. Reactivity

Related to contained substances:
silver nitrate:
No data available

10.2. Chemical stability

Decomposes when exposed to light.
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Avoid contact with combustible materials, it could explode.

10.5. Incompatible materials

Agents strong reducing agents, strong bases, Alcohols, ammonia and magnesium

10.6. Hazardous decomposition products

No data available

SECTION11. Toxicological information

11.1. Information on toxicological effects

ATE oral = ∞
ATE dermal = ∞
ATE inhal = ∞
(a) acute toxicity: based on available data, the classification criteria are not met.
(b) skin corrosion/irritationCorrosive product: causes severe skin burns and eye damage.
(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.
(d) respiratory or skin sensitization: based on available data, the classification criteria are not met.

(e) germ cell mutagenicity: based on available data, the classification criteria are not met.
(f) carcinogenicity: based on available data, the classification criteria are not met.
(g) reproductive toxicity: based on available data, the classification criteria are not met.
(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
(i) specific target organ toxicity (STOT) repeated exposurebased on available data, the classification criteria are not met.
(j) aspiration hazard: based on available data, the classification criteria are not met.
Related to contained substances:
silver nitrate:
EXPOSURE: The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.
Inhalation risk Evaporation at 20 ° C is negligible; a harmful concentration of airborne particles can, however, be reached quickly on spraying or when dispersed, especially if powdered.
EFFECTS OF SHORT-TERM EXPOSURE: The substance 'corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion. The substance may cause effects on the blood, resulting in formation of methaemoglobin. The effects may be delayed. And 'effects may be delayed.
EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: The substance may have effects on the blood, resulting in formation of methaemoglobin. Inhalation or ingestion can lead to generalized argyria, gray discolouration of the eyes and the skin and brown fingernails.
ACUTE HAZARDS / SYMPTOMS
Sore throat. Cough. Burning sensation. Heavy breath. difficulty breathing. Blue lips or fingernails. Blue skin. Dizziness. Headache. Nausea. Confusion. Convulsions. Unconsciousness. Symptoms may be delayed (see Notes).
SKIN Pain. Redness. Skin burns. Blisters. (Further see Inhalation).
Eyes Redness. Ache. Severe deep burns. Loss of vision.
Ingestion Abdominal pain. Burning sensation. Shock or collapse. (Further see Inhalation).

NOTES: Depending on the degree of exposure, periodic medical examination. In case of poisoning with this substance you need a specific treatment; the appropriate means with instructions must be available.

SECTION12. Ecological information

12.1. Toxicity

ARGENTO NITRATO:
C(E)L50 (mg/l) = 0,0012 Acute toxicity M-factor = 100
The product is dangerous for the environment as it is very toxic to aquatic organisms following acute exposure.
Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

Bioconcentration factor (BCF): 70

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

12.6. Other adverse effects

Very toxic to aquatic organisms.

SECTION13. Disposal considerations

13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.
Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

SECTION14. Transport information

14.1. UN number

ADR/RID/IMDG/ICAO-IATA: 1493
ADR exemption because compliance with the following characteristics:
Combination packagings: per inner packaging 1 kg per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 kg per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: SILVER NITRATE
ICAO-IATA: SILVER NITRATE

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 5.1
ADR/RID/IMDG/ICAO-IATA: Label : Limited quantities
ADR: Tunnel restriction code : E
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 kg
IMDG - EmS : F-A, S-Q

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: II

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is environmentally hazardous
IMDG: Marine polluting agent : Yes

14.6. Special precautions for user

The transport must be carried out by authorised vehicles carrying dangerous goods in accordance with the requirements of the current edition of the agreement A.D.R. applicable national provisions.
The transport must be carried out in the original packaging and in packages that are made from materials resistant to the content and not likely to generate with this dangerous reactions. Employees to the loading and unloading of dangerous goods have received proper training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

It is not intended to carry bulk

SECTION15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Legislative Decree. 02/03/1997 n. 52 (Classification, packaging and labeling of dangerous substances). Legislative

Decree 14/03/2003 n. 65 (Classification, packaging and labeling of dangerous substances). Legislative Decree. 02/02/2002 n. 25 (Risks related to chemical agents at work). D.M. 26/02/2004 Work (Exposure Limits Professional); D.M. 03/04/2007 (Implementation of Directive n. 2006/8 / EC). Regulation (EC) No. 1907/2006 (REACH), Regulation (EC) No. 1272/2008 (CLP), Regulation (EC) 790 / 2009.D.Lgs. September 21, 2005 n. 238 (Seveso Ter).
Seveso category:
P8 - OXIDISING LIQUIDS AND SOLIDS
E1 - ENVIRONMENTAL HAZARDS
REGULATION (EU) No 1357/2014 - waste:
HP2 - Oxidising
HP8 - Corrosive
HP14 - Ecotoxic

15.2. Chemical safety assessment

The supplier has made an assessment of chemical safety

SECTION16. Other information

16.1. Other information

Description of the hazard statements exposed to point 3
H272 = May intensify fire; oxidiser.
H314 = Causes severe skin burns and eye damage.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
Main normative references:
Directive 1999/45/EC
Directive 2001/60/EC
Regulation 1272/2008/EC
Regulation 2010/453/EC
Regolamento529/2012 and subsequent updates
This data sheet cancels and replaces any previous edition.