
Safety Data Sheet

Product Name	Silver Chloride
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:**Product Description:** Silver Chloride**Synonyms:** Chlorous acid, silver salt; Silver Monochloride**CAS-No:** 7783-90-6**EC-No.:** 232-033-3**Molecular Formula:** AgCl**REACH Registration No:** A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.**1.2. Relevant identified uses of the substance or mixture and uses advised against:****Recommended Use:** Laboratory chemical**Details of the supplier of the safety data sheet:**

- Company** **Finar Limited**
184-186/P, Chacharwadi Vasna,
Sarkhej-Bavla Highway,
Ta.: Sanand, Dist.: Ahmedabad-382110, Gujarat, India.
Web: www.finarchemicals.com
- E-Mail Address** safety.finar@aceto.com; info.finar@aceto.com

1.3. Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008

Corrosive to Metals (Category 1), H290

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label Elements:

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word: Warning

Hazard statements

H290 May be corrosive to metals.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P234 Keep only in original packaging.

P273 Avoid release to the environment.

P390 Absorb spillage to prevent material damage.

P391 Collect spillage.

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

Supplemental Hazard Statements

None

Reduced Labelling (<= 125 ml)

Hazard Pictograms

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Signal word: Warning

Hazard statements

None

Precautionary statements

None

Supplemental Hazard Statements

None

2.3. Other Hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Silver Chloride

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Silver Chloride	7783-90-6	232-033-3	>95 %

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **General advice**

Show this safety data sheet to the doctor in attendance.

- **If inhaled**

Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.

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- **If case of skin contact**
Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.
- **In case of eye contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Get medical attention.
- **If swallowed**
Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed:
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed:
No data available

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:
Suitable Extinguishing Media- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media- For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture:
Hydrogen chloride gas
Silver/silver oxides
Not combustible.
Fire may cause evolution of: Hydrogen chloride gas
Ambient fire may liberate hazardous vapours.

5.3. Advice for firefighters:
In the event of fire, wear self-contained breathing apparatus.

5.4 Further Information:
Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact.
 Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
 For personal protection see section 8.

6.2. Environmental precautions:

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up:

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4. Reference to other sections:

For disposal see Sections 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

7.2. Conditions for safe storage, including any incompatibilities:

Storage conditions

No metal containers.
 Tightly closed. Dry.
 Handle and store under inert gas. Light sensitive. Moisture sensitive.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Ingredients with workplace control parameters

8.2. Exposure Controls:

- **Appropriate Engineering Controls:**

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Personal Protective Equipment:

Eye & Face Protection-

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin Protection-

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact-

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact-

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

Body Protection-

Protective Clothing

Respiratory Protection-

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards:

DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are

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carried out according to the instructions of the producer.

These measures have to be properly documented.

Environmental Exposure Controls-

Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties:**

- **Appearance:** White
- **Physical State:** Powder
- **Odor:** Odorless
- **Odor Threshold:** No data available
- **pH:** No data available
- **Melting Point:** 455 °C
- **Critical Temperature:** No data available
- **Vapor Pressure:** 1 hPa at 912 °C
- **Density:** No data available
- **Viscosity Dynamic:** No data available
- **Viscosity Kinematic:** No data available
- **Lower Explosive Limit:** No data available
- **Upper Explosive Limit:** No data available
- **Decomposition Temperature:**
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Partition coefficient: n-octanol/water:** log Pow: 5
- **Ionicity (in Water):** No data available
- **Boiling Point/Range:** 1550 °C
- **Flash Point:** No data available
- **Specific Gravity:** No data available
- **Ignition Temperature:** No data available

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- **Water Solubility:** No data available

9.2. Other information:

- **Molecular Weight:** 143.32 g/mol
- **Molecular Formula:** AgCl

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity:**

No data available

10.2. Chemical stability:

The product is chemically stable under standard ambient conditions (room temperature).

10.3. Possibility of hazardous reactions:

Risk of explosion with:

Ammonia

Alkali metals

powdered aluminium

Violent reactions possible with:

peroxi compounds

sulfoxides

10.4. Conditions to avoid:

Incompatible products. Excess heat. Avoid dust formation. Exposure to light.

Avoid moisture.

10.5. Incompatible materials:

Strong oxidizing agents.

Metals.

10.6. Hazardous decomposition products:

Hydrogen chloride gas

In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects:****Acute toxicity**

LD50 Oral - Rat - male and female - > 5.000 mg/kg

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(OECD Test Guideline 401)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

Serious Eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

Respiratory or Skin sensitization

No data available

Germ cell mutagenicity

Test Type: Micronucleus test

Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 487

Result: negative

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Disilver(1+) sulfate
Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: Metabolic activation

Method: OECD Test Guideline 476

Result: negative

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Disilver(1+) sulfate

Test Type: Micronucleus test

Species: Rat

Application Route: Oral

Method: OECD Test Guideline 474

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Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information:

Repeated dose toxicity - Rat - male and female - Oral - 30 Days - NOAEL (No observed adverse effect level) – 1.5 mg/kg - LOAEL (Lowest observed adverse effect level) – 1.5 mg/kg

Remarks: (ECHA)

RTECS: VW3563000

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.

Hazardous properties cannot be excluded, but are relatively improbable due to the compound's poor water solubility.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Toxicity to fish:

Semi-static test LC50 - Pimephales promelas (fathead minnow) – 0.0012 mg/l - 96 h (US-EPA)

Remarks: (referred to the cation)

(in analogy to similar products)

The value is given in analogy to the following substances: Silver Nitrate

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Toxicity daphnia and other aquatic invertebrates:

Semi-static test LC50 - Daphnia magna (Water flea) – 0.00022 mg/l - 48 h

Remarks: (referred to the cation)

(ECHA)

The value is given in analogy to the following substances: Silver Nitrate

Toxicity to algae:

No data available

Toxicity to bacteria:

Static test NOEC - Bacteria – 0.025 mg/l – 13.3 min

Remarks: (ECHA)

(in analogy to similar products)

The value is given in analogy to the following substances: Silver Nitrate

12.2 Persistence and degradability:

The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulate potential:

Bioaccumulation Cyprinus carpio (Carp) - 41 d at 20 °C (Silver Chloride)

Bioconcentration factor (BCF): 70

12.4 Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects:

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

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SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	UN 3077		
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (silver chloride)		
14.3 Class	9		
14.4 Packing group	III		
14.5 Environmentally hazardous	Yes	Yes	Yes
14.6 Special precautions for user	No data available	No data available	No data available
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Relevant		

SECTION 15: Regulatory information

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

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ENVIRONMENTAL HAZARDS

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment:

For this product a chemical safety assessment was not carried out.

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SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H290 May be corrosive to metals.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Training advice: -

Provide adequate information, instruction and training for operators.

References: Not available

Created: 28/08/2021

Disclaimer:

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