

Safety data sheet
According to Regulation n. 1907/2006 and Regulation 878/2020
SILVER CARBONATE 780%



Revision XII – 07.06.2024

Replaces revision XI – 22.11.2022

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

1.1 Product identifier

Commercial name	Silver carbonate
Product code	07
C.A.S Registry Number	534-16-7
EC number	208-590-03
Molecular name	275,75
Raw Formula	Ag ₂ CO ₃
Registration number	A REACH registration number is not available for this substance as the annual quantity produced or imported is less than one tonne.

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

Intended uses	Industrial use. Additive for electroplating
Advised against uses	None in particular

1.3 Details of the supplier of the safety data sheet

Name	FAGGI ENRICO S.P.A.
Address	Via Majorana, 101/103 50019 Sesto Fiorentino FI
Telephone number	055311861
Fax number	055311791
Competent person responsible for the safety data sheet	lorenzo.magaldi@faggi.it

1.4 Emergency telephone number 111 - Medical helpline operating in England, in Scotland (NHS 24) and in Wales (NHS Direct Wales)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture according to Regulation (EC) No. 1272/2008

Hazard classes	Category codes	Hazard statements
Eye damage	1	H318
Reprotoxicity	1B	H360D
Aquatic acute	1	H400
Aquatic chronic	1	H410

2.2 Label elements

Pictograms



Signal words

DANGER

Hazard statements

H318	Causes serious eye damage
H360D	May damage the unborn child
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P273	Avoid release to the environment

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P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection
P308+P313	IF exposed or concerned: Get medical advice/attention
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor

2.3 Other hazards It does NOT contain PBT / vPvB substances according to Regulation (EC) 1907/2006, annex XIII. It does NOT contain substances that interfere with the endocrine system in accordance with Regulation (EC) 1907/2006 art.59 paragraph 1 and in accordance with the criteria established in Regulation (EU) 2017/2100 and Regulation (EU) 2018/605.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

CAS Number 534-16-7
 EC Number 208-590-03
 INDEX Number Not available
 ATE: not applicable
 M Factor Acute Toxicity: 1000
 M Factor Chronic Toxicity: 100

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Bring to a well ventilated area, in case of problems consult a doctor.
Ingestion	Give a glass of water to drink. Contact a doctor immediately. Do not give anything if the person is not conscious. If pain persists, consult a doctor
Skin contact	Generally the product is not irritating to the skin.
Eye contact	Wash with running water for several minutes holding the eyelids wide open and consult your doctor. Contact a physician

Recommendations :

Need to see a doctor immediately	YES
Possibility of delayed effects following exposure	YES
Move the exposed individual from the place of exposure to open air	YES
Remove clothing and shoes of the exposed individual	YES
How to handle contaminated clothing	With gloves
For those providing first aid, wear PPE	

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YES

4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation or ingestion: sore throat, cough, burning sensation. Shortness of breath, difficulty in breathing. Lips and nails and blue skin. Vertigo, headache, nausea. Confusional state, convulsions, unconsciousness. Symptoms can be delayed. Abdominal pain, burning sensation. Shock or collapse.

In case of eye contact: Redness, pain. Severe deep burns. Loss of vision

4.3 Indication of any immediate medical attention and special treatment needed

Consult a physician immediately. It is of the utmost importance to clean the entire contaminated area of the body, including the scalp and nails.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media CO₂, powder or water spray extinguishers. Extinguish large fires with water spray or alcohol-resistant foam.

Unsuitable extinguishing media None

5.2 Special hazards arising from the substance or mixture

No other information are available

5.3 Advice for firefighters

Normal fire-fighting clothing, such as self-contained open-circuit compressed air breathing apparatus (EN137), flame retardant suit (EN469), flame retardant gloves (EN659) and firefighter boots (HOA29 or A30)

Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Evacuate surrounding areas

6.1.2. For emergency responders

Use gloves, goggles and self-contained breathing apparatus

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

6.3.1. Advice in order to contain a spill

None

6.3.2. Advice in order to clean-up a spill

Collect by mechanical means.

6.4 Reference to other sections

None

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

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7.1.1. Recommendations in order to manipulate the substance or the mixture in a safe manner, such as containment measures and prevention of fire and aerosol and powders formation

No special measures are required. Avoid the formation of dust.

7.1.2. General recommendation on work hygiene

Do not eat, drink and smoke in work areas. Wash your hands after use. Remove contaminated clothing and protective equipment before entering eating areas

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Risk management associated with explosive atmospheres, corrosive conditions, flammability hazards, incompatible substances or mixtures, evaporative conditions, potential ignition sources

No particular measures are required.

7.2.2. Control of weather conditions, ambient pressure, temperature, sunlight, humidity and vibration

Store in closed and labeled containers away from sunlight.

7.2.3. Conditions to maintain the integrity of the substance or mixture

Close the containers immediately after use.

7.2.4. Advice regarding the ventilation, specific design for storage rooms or vessels, quantity limits under storage conditions, packaging compatibilities

The storage rooms must be ventilated and closed and free of manholes / sewers

7.3. Specific end use(s)

Industrial use

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

RECOMMENDATIONS OF MAK-COMMISSION

This data is recommended by scientific experience and is not established law.

0,01 mg/m³

with reference to the inhalable fraction

PNEC

Hazard to aquatic organisms

Freshwater 40 ng/L

Marine water 860 ng/L

Sewage treatment plant 25 µg/L

Sediment (freshwater) 438.13 mg/kg sediment dw

Sediment (marine water) 438.13 mg/kg sediment dw

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Periodically carry out personal environmental sampling and clinical examinations.

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection

Splash goggles compliant with Directive 89/686 / EEC and standard EN166: 2001

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Skin protection (hands)	Gloves according to EN 374 Glove material: Nitrile rubber, latex Thickness 0.40 mm Breackthrough time > 30 minutes
Skin protection (body)	Not necessary
Respiratory protection	Not necessary
Thermal hazards	None

8.2.3. Environmental exposure controls

Keep all environments where silver carbonate is used in suction, using localized collection systems and ambient air exchange. Convey the aspirated volumes to an abatement system and then into the atmosphere. Do not use air recirculation suction systems. Avoid any spillage into the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Crystalline solid
Colour	Grey-white
Odour	Not applicable
Melting point/freezing point	Not applicable
Boiling point or initial boiling point and boiling range	Not applicable
Flammability	Not inflammable
Lower and upper explosion limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	220 ° C
pH	Not applicable
Kinematic viscosity	Not applicable
Solubility	63 mg / L in water at 20 ° C
Partition coefficient n-octanol/water (log value)	Not applicable
Vapour pressure	Not applicable
Density and/or relative density	6.08 g / cm ³
Relative vapour density	Not applicable
Particle characteristics	D10 = approx. 2.5 µm D50= approx-7.5 µm D90=approx 25.5 µm

9.2. Other information

None

10. STABILITY AND REACTIVITY

10.1 Reactivity

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10.2	<p>No relevant information</p> <p>Chemical stability</p> <p>The product is stable if used according to the norm.</p>
10.3	<p>Possibility of hazardous reactions</p> <p>None</p>
10.4	<p>Conditions to avoid</p> <p>No other information available</p>
10.5	<p>Incompatible materials</p> <p>None</p>
10.6	<p>Hazardous decomposition products</p> <p>Under normal conditions of use and storage, hazardous decomposition products should not be formed</p>
11.	<p>TOXICOLOGICAL INFORMATION</p>
11.1	<p>Information on hazard classes as defined in Regulation (EC) No 1272/2008</p> <p>Acute toxicity LD50 (oral) > 2000 mg/kg bw (rat)</p> <p>Skin corrosion/irritation Based on available data, the classification criteria are not met</p> <p>Serious eye damage/irritation Strong irritation with the risk of serious eye damage.</p> <p>Respiratory or skin sensitization Based on available data, the classification criteria are not met</p> <p>Germ cell mutagenicity Based on available data, the classification criteria are not met</p> <p>Carcinogenicity Based on available data, the classification criteria are not met</p> <p>Reproductive toxicity The product may harm the fetus OECD443 NOAEL (oral): 40 mg/kg bw/day (rat)</p> <p>STOT – single exposure Based on available data, the classification criteria are not met</p> <p>STOT – repeated exposure Based on available data, the classification criteria are not met</p>
11.2	<p>Information on other hazards</p> <p>None</p>
12.	<p>ECOLOGICAL INFORMATION</p>
12.1	<p>Toxicity LC50 (96h): 1.2 µg Ag/L (pimephales promelas)</p>
12.2	<p>Persistence and degradability Not biodegradable</p>
12.3	<p>Bioaccumulative potential Bioaccumulation after 30 days (Carp): 70 BCF</p>
12.4	<p>Mobility in soil Log Kd 4.05 (sediments)</p>
12.5	<p>Results of PBT and vPvB assessment Not PBT nor vPvB</p>
12.6	<p>Endocrine disrupting properties No known effects</p>

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12.7	Other adverse effects	No known effects
13.	DISPOSAL CONSIDERATIONS	
13.1.	Waste treatment methods	
	Classify as special hazardous waste. If possible, allocate both the substance and the packaging to plants authorized for the recovery of precious metal	
14.	TRANSPORT INFORMATION	
14.1	UN number or ID number	3077
14.2	Official UN shipping name	Environmentally hazardous substance, solid, n.o.s. (silver carbonate)
14.3	Transport hazard classes	9
	ADR/RID/IMDG/ICAO-IATA: Class: 9 ADR/RID/IMDG/ICAO-IATA: Label: 9 ADR: Tunnel restriction code. N.A. IMDG - EmS: F-A S-F	
14.4	Packing group	III
14.5	Dangers for the environment	
	ADR/RID/ICAO-IATA: dangerous for the environment IMDG: Marine Contaminant: yes	
14.6	Special precautions for users	
	Transport must be carried out by vehicles authorized for the transport of dangerous goods according to the provisions of the current edition of the A.D.R. Agreement. and the applicable national provisions. Transport must be carried out in the original packaging and, in any case, in packaging which is made of materials which cannot be attacked by the contents and which are not likely to generate dangerous reactions. Those responsible for loading and unloading dangerous goods must have received appropriate training on the risks presented by the preparation and on any procedures to be adopted in the event of emergency situations.	
14.7	Maritime transport in bulk in accordance with the IMO Acts	
	Bulk transport is not foreseen	
15.	REGULATORY INFORMATION	
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	Applicability
	<i>Reg. (CE) 1907/2006/CE Reach</i>	YES
	<i>Reg. (EC) 1272/2008 CLP and subsequent changes and additions</i>	YES
	<i>Reg. (CE) 2037/2000 "Substances that deplete the ozone layer"</i>	NO
	<i>Reg. (EC) 850/2004 "Persistent organic pollutants"</i>	NO
	<i>Reg. (EC) 689/2008 "export and import of dangerous chemicals"</i>	NO
	<i>Substance listed in Annex I of Dir. 2012/18 / EU so-called Seveso</i>	NO
	<i>Legislative Decree 81/2008 Consolidated Law on health and safety at work</i>	YES
	<i>Directive 2014/103 / EU "Adr"</i>	YES
	<i>Reg. (CE) 1907/2006/CE Reach art. 59 – Candidate List of Substances of Very High Concern (SVHC)</i>	NO
	<i>Reg. (CE) 1907/2006/CE Reach - Annex XIV – Authorisation List</i>	NO

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Reg. (CE) 1907/2006/CE Reach - Annex XVII – Restriction List
<https://echa.europa.eu/it/substances-restricted-under-reach>

Limited use
Item 75
(check link)

15.2

Chemical safety assessment

A chemical safety assessment was not carried out

16.

OTHER INFORMATION

Changes compared to the previous edition

Changes to sections 2 – 3 – 6 – 8 – 11 – 12 – 16

Acronym and abbreviation legend

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

GHS: Globally Harmonized System of Classification and Labeling of Substances

EINECS: European Inventory of Chemical Substances

CAS: Chemical Abstract Service

STA: Acute Toxicity Estimate

PBT: Persistent, Bioaccumulative and Toxic.

vPvB: (very persistent and very bioaccumulative). Very persistent and very bioaccumulative

LD: lethal dose

PNEC: predicted no effect concentration

DNEL: derived no effect level

TLV (ceiling value): threshold limit value

STEL: short-term exposure limit

EU-OEL: European occupational exposure limit

TWA: time-weighted average

EC: effective concentration

NOAEL: no observed adverse effect level

LC: lethal concentration

NOEC: no observed effect concentration

LOEC: lowest observed effect concentration

Bw: body weight

Koc: organic carbon-water partition coefficient

MAK: maximum concentration in the workplace

Main references and data sources

ECHA's data bank on registered substances and soon to be registered substances:

<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

Adequate training for workers to ensure the protection of human health and the environment

- Training on Chemical Risk pursuant to Legislative Decree 81/08 Title IX dangerous substances
- PPE training

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