SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: **Silver Oxide Sample Additive, OEA**
Catalogue no: R51100
SDS reference no: R51100
Brand: OEA Labs
EC index no(s): 243-957-1
REACH no: The annual tonnage does not require registration.
CAS no(s): Ag2O[20667-12-3]

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

Identified uses: Elemental analysis scientific instrumentation. Not for pharmaceutical, domestic or other uses.

1.3 Details of the supplier of the safety data sheet

Company name: OEA Laboratories Limited
Unit C2 Florence Road Business Park
Kelly Bray, Callington, Cornwall
PL17 8EX, United Kingdom

Telephone: +44 (0)1579 384174
Fax: +44 (0)1579 384174
Email: sales@oealabs.com

1.4 Emergency telephone number

Telephone: +44 (0)1579 384174, +44 (0) 1579 350212, +44 (0) 7811 102906

SECTION 2. Hazards identification

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

Oxidising liquids; Oxidising solids (Category 1), H271
Serious eye damage/eye irritation (Category 1), H318
Hazardous to the aquatic environment, long term hazard (Category 1), H410

2.2 Labelling elements according to Regulation (EC) No 1272/2008

Pictogram(s):


GHS03


GHS05


GHS09

Signal word: Danger

Hazard statement(s):

H271	May cause fire or explosion; strong oxidiser.
H318	Causes serious eye damage.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P220	Keep/Store away from clothing/combustible materials
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Restricted to professional users.

2.2 Other hazards

None

SECTION 3. Composition/information of ingredients

3.1 Substances

Synonyms:
Formula: Ag2O
Molecular weight: 231.74 g/mol
Components:

Silver (I) Oxide Concentration: ~100%

CAS No 20667-12-3, EC No 243-957-1, H271, Oxidising liquids; Oxidising solids, Category 1; H318, Serious eye damage/eye irritation, Category 1; H410, Hazardous to the aquatic environment, long term hazard, Category 1;

SECTION 4. First aid measures

4.1 Description of first aid measures

General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance.

If Inhaled:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact:

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed:

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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 Extinquishing media

Suitable extinquishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arrising from the substance or mixture

Silver/silver oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses

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

Components with workplace control parameters:

Silver (I) Oxide

CAS No 20667-12-3, Contains no substances with occupational exposure limit values., ,

8.2 Exposure controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment:

Eye/face protection:

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government

standards such as NIOSH (US) or EN 166(EU).

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection:

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental protection:

No data available.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form:	Powder
Colour:	Black/dark grey
Odour:	No data available.
Odour threshold:	No data available.
pH:	No data available.
Melting point:	No data available.
Boiling point:	No data available.
Flash point:	No data available
Flammability solid/gas:	No data available.
Upper/lower flammability or explosive limits:	No data available.
Water solubility:	0.0016g/l @20'C
Autoignition temp:	No data available.
Decomp temperature:	~230'C
Explosive properties:	No data available.
Oxidising properties:	The substance or mixture is classified as oxidizing with the category 1.

9.2 Other safety information

No data available.

SECTION 10. Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Light.

10.5 Incompatible materials

Strong oxidizing agents, Strong acids, Ammonia, Amines

10.6 Hazardous decompostion products

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 - 3,804 mg/kg (OECD Test Guideline 401)

Skin corrosion/irritation:

Skin - Rabbit - Result: No skin irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation:

Eyes - Rabbit - Result: Risk of serious damage to eyes. (OECD Test Guideline 405)

Respiratory or skin sensitisation:

No data available.

Germ cell mutagenicity:

No data available.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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.

Potential health effects - inhalation:

No data available.

Potential health effects - ingestion:

No data available.

Potential health effects - skin:

No data available.

Potential health effects - eyes:

No data available.

Signs and symptoms of exposure:

No data available.

Additional information:

RTECS: VW4900000
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.

SECTION 12. Ecological information

12.1 Toxicity

Toxicity to fish:	No data available.
Toxicity to daphnia and other aquatic invertibrates:	No data available.
Toxicity to algae:	No data available.
Toxicity to bacteria:	No data available.

12.2 Persistance and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

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

Very toxic to aquatic life with long lasting effects.

SECTION 13. Disposal considerations

13.1 Waste treatment methods

Product:

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging:

Dispose of as unused product.

SECTION 14. Transport information

14.1 UN number

ADR/RID/IATA/IMDG: UN1479

14.2 UN proper shipping name

ADR/RID/IATA/IMDG: OXIDISING SOLID, N.O.S. (Disilver oxide)

14.3 Transport hazard class(es)

ADR/RID/IATA/IMDG: 5.1

14.4 Packaging group

ADR/RID/IATA/IMDG: I

14.5 Environmental hazards

ADR/RID/IATA/IMDG: Marine pollutant

14.6 Special precautions for user

No data available.

14.7 Shipping quantities

ADR LQ maximum:
ADR EQ code:
ADR EQ IP/pkg:
IATA LQ PInstruction:
IATA LQ IP/pkg:
IATA EQ code:
IATA EQ IP/pkg:
De minimus:

SECTION 15. Regulatory information

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

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

No data available.

15.2 Chemical safety assessment

No data available.

SECTION 16 Other information

The above information is believed to be correct but does not proport to be all inclusive and shall be used 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 pecautions. It does not represent any guarantee of the properties of the product. OEA Laboratories Limited shall not be held liable for any damage resulting from the handling or contact with the above product. See www.oealabs.com for terms and conditions of sale.