1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Silver(I) oxide

Product Number: 85260

Brand: Sigma-Aldrich

Supplier: Sigma-Aldrich
3050 Spuce Street
SAINT LOUIS MO 63118
USA

Telephone: +1 800-332-5832
Fax: +1 800-335-5052
Emergency Phone # (For both supplier and manufacture): (314) 776-6555

Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8555

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Oxidizer, Inertant

GHS Classification
Oxidizing solids (Category 2)
Acute toxicity, Oral Category 5
Skin irritation (Category 2A)
Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3)

GHS Label elements, Including precautionary statements

Pictogram

Signal word: Danger

Hazard statement(s)
H272 May intensely irritate eyes.
H303 May cause sudden death.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statement(s)
P220 Keep/Stow away from clothing/ combustible materials.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: Ag2O
Molecular Weight: 231.74 g/mol

Component Discolor oxide
CAS No. 20667-12-3
EC No. 243-957-1

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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.

5. FIREFIGHTING MEASURES

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

Special protective equipment for firefighters
Wear self-contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Silver/silver oxides

Further Information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions
Do not let product enter drains.

SIGMA-ALDRICH
Material Safety Data Sheet
Version 3.4
Revision Date 10/04/2012
Print Date 05/26/2015

NOV - 1 2013
7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition. Normal measures for preventive fire protection.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.
Light sensitive. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 149) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a face-attached supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand 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.

Immersion protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 480 min
Material tested: Dermatril® (Adbrich 287272, Size IV)

Splash protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 30 min
Material tested: Dermatril® (Adbrich 287272, Size IV)

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: powder
Colour: dark grey

Safety data
pH: no data available
Melting point/freezing point: no data available
Boiling point: no data available
Flash point: not applicable
Ignition temperature: no data available
Autoignition temperature: no data available
Lower explosion limit: no data available
Upper explosion limit: no data available
Vapour pressure: no data available
Density: 7.143 g/cm³
Water solubility: Insoluble
Partition coefficient: n-octanol/water: no data available
Relative vapour density: no data available
Odour: odourless
Odour Threshold: no data available
Evaporation rate: no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
Light.

Materials to avoid
Strong oxidizing agents, Strong acids, Ammonia, Amines
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions - Silver/silver oxides
Other decomposition products - no data available

Thermal decomposition
230 °C

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Oral LD50
LD50 Oral - rat: 2,920 mg/kg

Inhalation LD50

12. ECOCLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extreme care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1479 Class: 5.1 Packing group: II Proper shipping name: Oxidizing solid, n.o.s. (Dilute oxide) Reportable Quantity (RQ): Marine pollutant: No Poison Inhalation Hazard: No

IMDG
UN number: 1479 Class: 5.1 Packing group: II EMS-No: F-A, S-0 Proper shipping name: OXIDIZING SOLID, N.O.S. (Dilute oxide) Marine pollutant: No

IATA
UN number: 1479 Class: 5.1 Packing group: II Proper shipping name: Oxidizing solid, n.o.s. (Dilute oxide)

15. REGULATORY INFORMATION

OSHA Hazards
Oxidizer, Irritant

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

Disilver oxide

2005-12-3
2007-07-01

SARA 311/312 Hazards
Reactivity Hazard, Acute Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right To Know Act.
Pennsylvania Right To Know Components

Dialyve oxide
CAS-No. 20667-12-3 Revision Date 2007-07-01

New Jersey Right To Know Components

Dialyve oxide
CAS-No. 20667-12-3 Revision Date 2007-07-01

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

18. OTHER INFORMATION

Further Information
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