Printing date 09/15/2011

Reviewed on 09/14/2011

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

Product identifier

Product name: Silver chloride

Stock number: 11421

CAS Number: 7783-90-6
EC number: 232-033-3

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

Sector of Use SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar, A Johnson Matthey Company Johnson Matthey Catalog Company, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660 Fax: 800-322-4757 Email: tech@alfa.com www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number:

During normal hours the Health, Safety and Environmental Department at (800) 343-0660. After normal hours call Carechem 24 at (866) 928-0789.

2 Hazards identification

Classification of the substance or mixture

The substance is not classified according to the Globally Harmonized System (GHS).

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable Information concerning particular hazards for human and environment: Not applicable

Label elements

Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)



Health (acute effects) = 1
Flammability = 0
Reactivity = 1

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

CAS# Description:

7783-90-6 Silver chloride Identification number(s): EC number: 232-033-3

4 First aid measures

Description of first aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

After skin contact

Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed

No further relevant information available.

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Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Firefighting measures

Extinguishing media

Suitable extinguishing agents

Product is not flammable. Use fire fighting measures that suit the surrounding fire.

Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Hydrogen chloride (HCl)

Metal oxide fume

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.

Methods and material for containment and cleaning up: Pick up mechanically.

Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling

Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Information about protection against explosions and fires: The product is not flammable

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Store in the dark.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from exposure to light.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace: Not required.

Additional information: No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Breathing equipment: Use suitable respirator when high concentrations are present.

Protection of hands:

Check protective gloves prior to each use for their proper condition.

Impervious gloves

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Material of gloves

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties

| Information on basic physical and chemical General Information | properties |
|---|--|
| General information Appearance: | |
| Appearance: Form: | Paradara / arrest a 11 i na /h a a da |
| Color: | Powder/crystalline/beads White |
| Odor: | Odorless |
| Odour threshold: | Not determined. |
| Odour threshold: | Not determined. |
| pH-value: | Not applicable. |
| Change in condition | |
| Melting point/Melting range: | 455°C (851 °F) |
| Boiling point/Boiling range: | 1550°C (2822 °F) |
| Sublimation temperature / start: | Not determined |
| Flammability (solid, gaseous) | Not determined. |
| Ignition temperature: | Not determined |
| Decomposition temperature: | Not determined |
| Auto igniting: | Not determined. |
| Explosion limits: | |
| Lower: | Not determined |
| Upper: | Not determined |
| Vapor pressure: | Not applicable. |
| Density at 20°C (68 °F): | 5.56 g/cm³ (46.398 lbs/gal) |
| Relative density | Not determined. |
| Vapour density | Not applicable. |
| Evaporation rate | Not applicable. |
| Segregation coefficient (n-octonol/water): | Not determined. |
| Viscosity: | |
| dynamic: | Not applicable. |
| kinematic: | Not applicable. |
| Other information | No further relevant information available. |

10 Stability and reactivity

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions No dangerous reactions known

Incompatible materials:

Oxidizing agents

Light

Hazardous decomposition products: Metal oxide fume

11 Toxicological information

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: May cause irritation

on the eye: May cause irritation

Sensitization: No sensitizing effects known.

Subacute to chronic toxicity:

Other than potential irritation (see above), no information on illness or injury to humans from acute or chronic exposure to this product is available.

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Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information

Acquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

Results of PBT and vPvB assessment

PBT: Not applicable. vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

| UN-Number | |
|--|-----------------|
| DOT, ADR, ADN, IMDG, IATA | Not applicable |
| UN proper shipping name | |
| DOT, ADR, ADN, IMDG, IATA | Not applicable |
| Transport hazard class(es) | |
| DOT, ADR, ADN, IMDG, IATA | |
| Class | Not applicable |
| Packing group | |
| DOT, ADR, IMDG, IATA | Not applicable |
| Environmental hazards: | |
| Marine pollutant: | No |
| Special precautions for user | Not applicable. |
| Transport in bulk according to Annex II of | |
| MARPOL73/78 and the IBC Code | Not applicable. |
| UN "Model Regulation": | - |

15 Regulatory information

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

Product related hazard informations:

Observe the general safety regulations when handling chemicals

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

Information about limitation of use: For use only by technically qualified individuals. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the

Department issuing MSDS: Health, Safety and Environmental Department.

Contact:

Zachariah C. Holt Global EHS Manager

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

INDG: International Maritime Code for Dangerous Goods
IATA: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIS: Hazardous Materials Identification System (USA)

USA