



Safety Data Sheet

1. Product and company identification

Product name : Silver perchlorate
 Name of manufacturer : Junsei Chemical Co., Ltd.
 Address : 4-16, 4-Chome, Nihonbashi-Honcho, Chuo-ku Tokyo, 103-0023, JAPAN
 Name of section : Quality Assurance Department
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2. Summary of danger and Hazard

GHS classification

Physical and chemical hazard

Explosives : Out of category
 Flammable solids : Out of category
 Pyrophoric solids : Out of category
 Self-heating substances and mixtures : Out of category
 Substances and mixtures which, in contact with water, emit flammable gases : Out of category
 Oxidizing solids : Category 2
 Corrosive to metals : Out of category

Human health hazard

Skin corrosion • Irritation : Category 1A
 Serious eye damage • Eye irritation : Category 1

Pictogram or symbol



Signal word : Danger
 Hazard statement : May intensify fire : oxidizer
 Causes severe skin burns and eye damage
 Causes serious eye damage

Cautions

Safety measurements : Keep away from heat.
 Keep away from combustible substances.
 Do not breathe dust and mist.

Wear appropriate protective gloves, glasses, clothing, face shield, or mask.
Wash protective equipment thoroughly after use.

First-aid measures : If inhaled : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical treatment if you feel unwell.

If swallowed: Rinse mouth, do not induce vomiting. Immediately get medical treatment.

If in eyes : Rinse cautiously with water for several minutes. Get medical treatment.

If on skin : Remove contaminated clothing and the substance. Immediately get medical treatment.

Storage : Keep away from combustible substances.

Store locked up.

Disposal : Dispose of contents and containers appropriately in accordance with related regulations.

3. Composition/Information on ingredients

Substance/Mixture : Substance

Chemical name or commercial name : Silver(I) perchlorate

Ingredients and composition : Silver(I) perchlorate min. 99.0%

Chemical formula : AgClO_4

CAS No. : 7783-93-9

TSCA Inventory : Registered

EINECS No. : 2320354

Dangerous and hazardous ingredients : Silver(I) perchlorate

4. First aid measures

Inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.

Skin contact : Wash the affected areas under running water.

Eye contact : Gently rinse the affected eyes with thin sodium chloride water solution and get medical treatment.

Ingestion : Give the victim one or two glasses of 1-2% sodium chloride water solution and get medical treatment.

5. Fire fighting measures

Extinguishing media : This product is noncombustible.

Prohibited extinguishing media : None

Particular fire fighting : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Protection for firefighters : Firefighters should wear protective equipment.

6. Accidental release measures

- Cautions for personnel : Wear proper equipment and avoid contact with skin and inhalation of dust. Keep away personnel except for authorized ones from spillage area by stretching ropes.
- Cautions for environment : Attention should be given not to cause damage to the environment by flowing of spillage to rivers. In case of the dilution of copious water, do not cause damage to the environment by untreated wastewater.
- Removal measure : Collect up spills and transfer in a chemical container. Spray sodium chloride solution in the spillage area, the wash thoroughly with water.

7. Cautions of handling and storage

Handling

- Engineering measures : If necessary, wear proper protective equipment not to contact with skin or inhale the dust.
- Cautions for safety handling : Handle the chemical not to generate aerosol or dust.

Storage

Adequate storage condition

- : As the chemical has deliquescent property, keep the bottle tightly closed and store at a cool place.

Safety adequate container materials

- : Glass, polyethylene, polypropylene

8. Exposure control/Personal protection

- Engineering measures : Use only with adequate ventilation and in closed systems.

Control parameters

- ACGIH(2009) : 0.01mg/m³(as Silver soluble compounds) (TLV-TWA)

Protective equipment

Respiration protective equipment

- : If necessary, wear dust mask

Hands protective equipment

- : Impervious protective gloves

Eyes protective equipment

- : Safety goggles

9. Physical and chemical properties

- Appearance : Crystalline powder

- Color : White

- Odor : Odorless

- Boiling point : Decomposition

- Melting point : 486°C

- Flash point : Noncombustible

- Specific gravity : 2.81g/ml (20°C)

Solubility

- Solubility in solvents : Water : 84%(25°C)

Other data : Turn to gray-grayish black gradually by sunlight.

10. Stability and reactivity

Stability : Stable under normal usage.

Reactivity : Decomposes by contacted with high temperature surfaces or flames, emits harmful nitrogen oxide gas. Thermal decomposition generates oxygen and promotes fire risk.

The chemical has strong oxidizibility and reacts with combustible or reducing materials at high temperature. React vigorously with aluminium, aluminium oxides, acetic anhydride and may cause fire or explode.

Incompatible conditions : Light, heat

Incompatible materials : Combustible materials

Hazardous decomposition products

: Chlorine, hydrogen chloride

11. Toxicological information

Acute toxicity : Oral : Not possible to classify because of insufficient data.

Dermal : Not possible to classify because of insufficient data.

Inhalation(vapor) : Not possible to classify because of insufficient data.

Inhalation(dust, mist) : Not possible to classify because of insufficient data.

Skin corrosiveness : Causes severe skin burns and eye damage(category 1A)

As this substance is silver soluble compounds, it has skin corrosiveness.

Irritation to skin, eyes : Causes serious eye damage(category 1)

As this substance is silver soluble compounds, it has eye corrosiveness.

Respiratory sensitization or Skin sensitization

: Respiratory sensitization : Not possible to classify because of insufficient data.

Skin sensitization : Not possible to classify because of insufficient data.

Mutagenicity : Not possible to classify because of insufficient data.

Carcinogenic effects : Not possible to classify because of insufficient data

Effects on the reproductive system

: Not possible to classify because of insufficient data.

Specific target organ systemic toxicity single exposure

: Not possible to classify because of insufficient data.

Specific target organ systemic toxicity repeated exposure

: Not possible to classify because of insufficient data.

Aspiration hazard : Not possible to classify because of insufficient data.

12. Ecological information

Ecotoxicity

Fish toxicity : Acute aquatic toxicity : Not possible to classify because of insufficient data.
Chronic aquatic toxicity : Not possible to classify because of insufficient data.

Rediualbility and degradability

: Not available

Mobility

: Not available

13. Disposal consideration

Residual disposal : Disposal should be made by one of following methods.

Precipitation method : Dissolve in water and add sodium chloride solution to precipitate silver chloride. Filter the precipitation and bury in a landfill site approved for hazardous waste disposal.

Roasting method : In case of a large amount of the chemical, recover metal silver by roast reduction method. Or entrust approved waste disposal companies with the disposal.

<Note> : The disposal of roasting method is desirable to entrust disposal companies.

Containers : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

UN class : Class 5.1(Oxidizing substances) P. G. II

UN number : 1481

Marine regulation information

UN No. : 1481

Proper shipping name : PERCHLORATES, INORGANIC, N.O.S.

Class : 5.1

Sub risk : -

Packing group : II

Marine pollutant : Not applicable

Aviation regulation information

UN No. : 1481

Proper shipping name : Perchlorates, inorganic, n.o.s.

Class : 5.1

Sub risk : -

Packing group : II

15. Regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

References

Encyclopaedia Chemica, Kyoritsu Shuppan Co., Ltd. (1963)

Handbook of 15710 Chemical Products, The Chemical Daily Co. (2010)

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The Safety Data Sheet (SDS) is prepared based on JIS Z7253, and it has the same required elements on the Material Safety Data Sheet (MSDS) which is prepared based on JIS Z7250:2010.