Safety data sheet

1. Identification

Product name New Silver Cleaner

Company name Miccheal Chemical CO., LTD.
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Department Research and Development

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Recommended use Removing stains and rust from sterling silver and foreign silver products

Restrictions on Use Do not use on products such as stainless steel, chrome plating, copper, zinc, aluminum

If you are planning to use this product for purposes other than those recommended,

please consult with an expert.

2. Hazard identification

GHS classification

Physicochemical hazards

Flammable liquids Not classified

Corrosive to metal Classification not possible

Health hazards

Acute toxicity

- oral Not classified
- dermal Not classified
- Inhalation, gas Not classified
- Inhalation, vapor Not classified
- Inhalation, dust and mist Not classified
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1

Respiratory sensitization Classification not possible

Skin sensitization Category 1

Germ cell mutagenicity Classification not possible

Carcinogenicity Category 2
Reproductive toxicity Category 2

Specific target organ toxicity

- single exposure Category 2 (Respiratory system)

- repeated exposure Category 2 (Respiratory system, thyroid)

Aspiration hazard Classification not possible

Environmental toxicity

Aquatic environmental toxicity

- acute Category 3- chronic Category 3

GHS labelling elements

Symbols/Pictograms





Signal word Danger

Hazard information Causes severe skin burns and eye damage

May cause an allergic skin reaction

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause damage to organs (Respiratory system)

May cause damage to organs through prolonged or repeated exposure (Respiratory

system, thyroid) Harmful to aquatic life

May cause long lasting harmful effects to aquatic life

Instruction

Preventation: Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fumes/gas/mist/vapors/spray.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN OR HAIR: Take off immediately all contaminated clothing. Rinse skin with

water/ shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Immediately call a doctor.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Immediately call a doctor.

If exposed or concerned: call a doctor.

Get medical advice/attention if you feel unwell.

If skin irritation or a rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local and national regulation.

3. Composition/information on ingredients

Single substance or mixtures A mixture

Ingredient

Chemical or common name	Concentration	CAS No.
Inorganic acid	Nondisclosure	Nondisclosure
Sulfamic acid	1-5%	5329-14-6
Thiourea	8%	577-11-7
Surfactants	Nondisclosure	Nondisclosure
Other	Nondisclosure	Nondisclosure
Water	Balance	7732-18-5

^{*}As the ingredients and content are trade secrets, they will be notified separately after a confidentiality agreement is signed.

4. First-aid measures

If inhaled Immediately move to a place with fresh air and rest in a posture that is easy to breathe.

Call a doctor if you feel unwell.

If on skin Immediately rinse thoroughly with plenty of water.

Immediately remove any clothing or shoes that have come into contact with the liquid.

Consult a doctor immediately. Delayed treatment may cause inflammation.

Thoroughly wash any clothing or shoes that have come into contact with the liquid before

wearing them again.

If in eyes Rinse carefully with water for several minutes.

Next, remove contact lenses if present and easy to do.

Continue rinsing.

Immediately bring the product or safety data sheet (SDS) for an ophthalmologist

If swallowed Immediately rinse mouth and give plenty of water to drink.

If unconscious, do not give anything by mouth.

Do not induce vomiting, and seek medical attention immediately.

If a large amount of thick liquid is swallowed is delayed, it can be life-threatening.

5. Fire-fighting measures

Extinguisher This is a nonflammable solution.

Fire-extinguishing agents that must

not be used

None known

Specific fire fighting method

Perform fire-fighting work from a windward direction. Spray water to surrounding facilities to keep them cool.

Wear suitable respiratory equipment and chemical protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency

procedures

Entrance by anyone other than those involved is prohibited.

When working, always wear protective equipment (rubber gloves, protective glasses, protective clothing, rubber boots, etc.) and avoid contact with the eyes and skin and

inhalation of mist.

If indoors, ensure adequate ventilation until work is completed.

In case of large amounts, evacuate people safely.

Environmental precautions

Avoid release to the environment.

When diluting with a large volume of water, take care so the contaminated waste water should not be discharged into the environment without being processed properly.

Do not flush the leakage directly into rivers and sewage.

Methods and materials for containment and cleaning up In case of a small amount, absorb leakages with adsorbents (sawdust, earth, sand, rags,

etc.) and thoroughly wipe the rest with rags or mops.

In case of a large amount, prevent the outflow to the surrounding area and appropriately

dispose after leading it to a safe place.

This is an acidic product and should be neutralized with alkali if necessary.

When it comes into contact with chlorine-based products, chlorine gas is generated, so

chlorine-based products are not used for neutralization.

7. Handling and storage

Handling

Technical measures Install emergency eye and body washing equipment near the handling area.

Implement equipment measures described in "8. Exposure prevention and personal

protection measures" and wear protective equipment.

Do not handle containers in a way that causes them to tip over, drop, impact, or drag.

Local ventilation / Entire ventilation Use in an area with sufficient ventilation.

Safety precautions of treatment

Do not contact, inhale or swallow.

It reacts with chlorine bleach, sodium hypochlorite, etc. to generate chlorine gas.

After handling, wash hands, face, etc. thoroughly and gargle.

Storage

Appropriate storage conditions Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Store the product so that it is not mixed with other products. Keep the container away from direct sunlight and fire.

Safety materials for packaging

containers

Use special containers designated by the company (special containers on which surface brand name, usage and precautions are written) when transferring this product to another

container.

8. Exposure controls/personal protection

Protective equipment

Respiratory protective equipment Mask

Protective hand equipment Protective gloves Protective eyes equipment Protective eyewear

9. Physical and chemical properties

Physical state Liquid

Color Reddish purple
Odor Raw material odor

Melting point/Freezing point No data
Initial boiling point and boiling No data

range

Flammability No data
Upper/lower flammability or No data

explosive limits

Flash point No data
Auto-ignition temperature No data
Decomposition temperature No data

pH 2.20±0.80 (1% aqueous solution, 25°C)

Kinematic viscosity No data

Solubility The product can be mixed with water at an arbitrary ratio.

Partition coefficient : n-

octanol/water

No data

Vapor pressure No data

Density / Relative density 1.05±0.01g/cm3 (25°C)

Vapor density No data
Particle properties Not applicable

10. Stability and reactivity

Reactivities Low reactivity in normal storage and handling.

It is stable against impact.

Possibility of hazardous reactions Reacts with chlorine bleach, sodium hypochlorite, etc. to generate chlorine gas.

Reacts with alkaline substances and generates heat.

It corrodes metals such as aluminum, tin, and zinc to generate hydrogen gas. Contact with chlorine bleach, sodium hypochlorite, or alkaline substances

Incompatible materials Contact with metals such as aluminum, zinc (excluding silver)

Hazardous decomposition products It reacts with chlorine bleach and sodium hypochlorite to produce chlorine gas.

11. Toxicological information

Conditions to avoid

Acute toxicity (oral) No data as a product Acute toxicity (dermal) No data as a product Skin corrosion/irritation No data as a product Serious eye damage/eye irritation No data as a product Respiratory sensitization No data as a product Skin sensitization No data as a product Germ cell mutagenicity No data as a product Carcinogenicity No data as a product Reproductive toxicity No data as a product

Specific target organ toxicity

(single exposure) No data as a product (repeated exposure) No data as a product Aspiration hazard No data as a product

12. Ecological information

Ecotoxicity

(Acute) No data as a product

(Chronic) No data as a product
Persistence/Degradability No data as a product
Bioaccumulation No data as a product
Mobility in soil No data as a product
Hazardous to the ozone layer No data as a product

13. Disposal considerations

Refer to the [7. Handling and storage].

Dispose used containers after thoroughly washing.

Dispose of in accordance with all federal, state and local applicable regulations.

14. Transport information

International regulations

UN No. 3265

Propper Shipping Name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

UN classification 8
Container grade II

Marine Pollutant Not Applicable

Marine regulation information Conform to IMO regulations.

Aviation regulation information Conform to ICAO/IATA regulations

Domestic regulations Follow the applicable laws and regulations.

Specific safety measures and conditions Avoid plac

for transportation

Avoid placing the container in direct sunlight or a hot place.

When transporting the container, check that there are no leaks and carefully load the

container so that it does not fall, drop, or is damaged, and prevent the load from

collapsing.

15. Regulatory information (only in Japan)

Industrial Safety and Health Act Enforcement Order Article 18 and Article 18-2

Thiourea

Sulfamic acid (from April 1, 2026)

Industrial Safety and Health Act Enforcement Order Attached Table 1 (Dangerous Materials)

Not applicable

Industrial Safety and Health Act Enforcement Order Attached Table 3 (Specified Chemical Substances, Manufacturing Permitted

Not applicable

Industrial Safety and Health Act Enforcement Order Appended Table 6-2 (Organic Solvents)

Not applicable

Lead poisoning prevention regulations (Lead and lead compounds specified in Attached Table 4, Item 6 of the Enforcement Order of the Industrial Safety and Health Act)

Not applicable

Tetraalkyl lead poisoning prevention regulations (Tetraalkyl lead specified in Attached Table 5, Item 1 of the Industrial Safety and Health Act Enforcement Order)

Not applicable

Industrial Safety and Health Regulations Article 577-2 (Carcinogenic Substances)

Not applicable

Industrial Safety and Health Regulations Article 594-2 (Chemical substances that cause skin damage)

Thiourea

Act on Promotion of Ascertainment of Emissions of Specified Chemical Substances into the Environment and Improvement of Management (PRTR)

Class 1 specified chemical substance: Thiourea (8.0%) (control number: 245)

Poisonous and Deleterious Substances Control Law (Poisonous and Deleterious Substances)

Not applicable

Act on Waste Treatment and Cleaning (Specially Controlled Industrial Waste)

Not applicable

Act on Regulation of Household Products Containing Hazardous Substances (Hazardous Substances)

Not applicable

Chemical Substances Control Law (Class 1 Specified Chemical Substances, Class 2 Specified Chemical Substances)

Not applicable

Fire Service Act (Hazardous materials)

Not applicable

16. Others

Inquiries about the contents of description

Company name Miccheal Chemical CO., LTD.

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Department Research and Development

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The contents included herein are provided with currently available materials and information, but the assessments on danger and hazards are not necessarily inapplicable. Consequently, the product should be carefully handled. All remarks and precautions are prepared for ordinary handling, and it is the user's responsibility to apply sufficient measures applicable to the event and method of particular use. Furthermore this information may be revised based on new knowledge without notice.