

Safety Data Sheet

TSC-CH01

1st Version : Apr. 16. 2021

Revised : Feb. 28. 2024

1. Product and company information

Product name : TSC-CH01
 Company name : Toyo Chemical Industrial Co., Ltd.
 Address : 2-26-13 Naka-Izumi, Komae-City, Tokyo
 Tel : +81-3-3489-5152
 Fax : +81-3-3488-1706
 Emergency contact : As above
 Recommended use of the product and restrictions on use : Photosensitive materials, electrodes, plating

2. Hazard identification

GHS classification of the substance All items are "Outside scope of classification" or "Cannot classify".

GHS Label elements

Pictograms : None
 Signal word : None
 Hazard statements : None
 Precautionary statement

Safety measures :
 Avoid breathing dust.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Avoid release to the environment.
 Wear protective gloves/protective clothing/eye protection/face protection.

Emergency measures :
 If swallowed : Call a doctor if you feel unwell.
 If on skin : Wash with plenty of water or soap.
 If skin irritation occurs : Get medical advice/attention.
 If inhaled : Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes.
 Remove contact lenses if present and easy to do - continue rinsing.
 If eye irritation persists : Get medical advice/attention.
 Collect spillage.

Storage : Store locked up.
 Disposal : Dispose of contents/container entrust to a specialized waste disposal company.

3. Composition/information on ingredients

Substance or mixture :		Substance			
Chemical name	Molecular formula (molecular weight)	CAS No.	Reference numbers in gazetted list in Japan (CSCL)	Reference numbers in gazetted list in Japan (ISHL)	Concentration or concentration range
Silver (I) Chloride	AgCl (143.32)	7783-90-6	1-4	—	100%

4. First-aid measures

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Get medical advice/attention if you feel unwell.

Skin contact : Wash with plenty of water/soap.
 If skin irritation or rash occurs get medical advice/attention.

Eye contact :	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical advice/attention if eye irritation persists, if you feel unwell.
Ingestion :	Rinse mouth. Get medical advice/attention if you feel unwell.
Protection of people implementing emergency measures :	Wear protective equipment. (See section 8. Exposure controls / personal protection)

5. Fire-fighting measures

Suitable extinguishing media :	Water, powder, foam, carbon dioxide gas
Do not use extinguishing media :	No information
Specific hazards :	This substance can produce harmful chlorine gas or fumes in heated.
Characteristic extinguishing methods:	The substance is nonflammable, but in case of fire in the surroundings, immediately move the container to a safe place. If it cannot be moved, cool it by sprinkling water around the container and its surroundings.
Protection of firefighters:	Wear appropriate air-breathing apparatus and chemical protective clothing when extinguishing fires. (See section 8. Exposure controls / personal protection)

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures :	Workers must wear appropriate protective equipment (see section 8. Exposure controls / personal protection) and avoid contact with eyes and skin and inhalation. Do not touch the leakage and do not walk on it. Prohibit the entrance except the person concerned.
Environmental precautions:	Be careful not to be released into rivers, etc. and cause any adverse effects on the environment.
Methods and materials for containment and cleaning up :	No information
Preventing secondary accidents :	No information

7. Handling and storage

Handling Technical measures :	Take the equipment measures described in "8. Exposure controls/personal protection" and wear protective equipment. Described in "8. Exposure controls/personal protection" perform local exhaust and general ventilation.
Precautions for safe handling :	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid swallowing. Do not have it on skin. Do not put it in eyes. Avoid release to the environment.
Contact evasion :	See "10. Stability and reactivity" section.
Storage Safe storage conditions :	Store locked up. Store in a cool, dark place away from direct sunlight.
Container and packing materials :	Airtight containers (glass, polyethylene, polypropylene etc.)

8. Exposure controls/personal protection

Control concentration :	
Tolerable concentration :	
Japan Society for Occupational Health (2021)	0.01mg/m ³ (as Ag)
ACGIH (2014)	TLV-TWA 0.01mg/m ³ as Ag soluble compounds
Equipment measures :	Workplaces storing or handling this material should be equipped with an eyewash and safety shower. Exhaust ventilation should be provided to keep airborne concentrations below exposure limits.
Protective equipment	
Respiratory protection :	Wear suitable respiratory protective equipment if ventilation is inadequate. (Refer to JIS T8151 Particulate respirators, JIS T8152 Gas respirators, JIS T8155 Compressed air open-circuit self-contained breathing apparatus)
Hand protection :	Wear suitable protective gloves. (rubber gloves, etc.) (Refer to JIS T8116 Chemical protective gloves)
Eye protection :	Wear suitable eye protection (regular glasses, plain glasses with side plates, goggles). (Refer to JIS T8147 Protective Glasses)
Skin and body protection :	Wear suitable protective clothing, and protective boots, etc. (Refer to JIS T8115 Chemical Protective Clothing, JIS T8117 Chemical Protective Boots)

9. Physical and chemical properties

Physical state :	Powder
Color :	White
Odor :	Odorless
Melting point/freezing point :	455°C
Boiling point, initial boiling point, and boiling range :	1,557°C
Dlammability :	No information
Lower and upper explosion limit/flammability limit :	Solids are not applicable
Flash point :	Solids are not applicable
Auto-ignition temperature :	Solids are not applicable
Decomposition temperature :	No information
pH :	No information
Kinematic viscosity :	Solids are not applicable
Solubility :	Insoluble in water: 1.93mg/L (25°C), 5.4 mg/L (50°C)
Partition coefficient: n-octanol/water(log value) :	No information
Vapour pressure :	No information
Density and/or relative density :	d ²⁰ 5.56
Relative vapour density :	Solids are not applicable
Particle characteristics :	No information

10. Stability and reactivity

Reactivity :	No information
Chemical stability :	Stable substance under normal conditions.
Possibility of hazardous reactions :	No information
Conditions to avoided :	Light, heat.
Incompatible materials :	Ammonia, potassium, sodium
Hazardous decomposition products :	Silver, chlorine gas

11. Toxicological information

Acute toxicity	
Oral :	There is a report of Mouse LD50 >10g/kg , but classification is not possible due to lack of data.
Dermal :	Classification is not possible due to lack of data.
Inhalation : Gases	The definition of GHS is a solid.
Inhalation : Vapours	The definition of GHS is a solid.
Inhalation : Dusts and mists	Classification is not possible due to lack of data.
Skin corrosios/irritation :	Classification is not possible due to lack of data.
Serious eye damage/irritation :	Classification is not possible due to lack of data.
Respiratory sensitization :	Classification is not possible due to lack of data.
Skin sensitization :	Classification is not possible due to lack of data.
Germ-cell mutagenicity :	Classification is not possible due to lack of data.
Carcinogenicity :	Classification is not possible due to lack of data.
Reproductive toxicity :	Classification is not possible due to lack of data.
Specific target organ toxicity (single exposure) :	Classification is not possible due to lack of data.
Specific target organ toxicity (repeated exposure) :	Classification is not possible due to lack of data.
Aspiration hazard :	Classification is not possible due to lack of data.

12. Ecological information

Toxicity	
Hazardous to the aquatic environment (acute) :	Classification is not possible due to lack of data.
Hazardous to the aquatic environment (chronic) :	Classification is not possible due to lack of data.
Persistence and degradability :	No information
Bioaccumulative potential :	No information
Mobility in soil :	No information
Hazard to the ozone layer :	The materials concerned are not listed by an affiliated book of Montreal Protocol.

13. Disposal precautions:

Residual waste :	Dispose of in accordance with relevant laws and local government standards. Outsource to an industrial waste disposal ontractor licensed by the prefectural governor, or if a local public entity does the disposal, outsource it there. If outsourcing waste disposal, thoroughly notify the disposal companies of the dangers and harmfulness before outsourcing.
Dirty containers and packaging :	Containers should be cleaned and recycled or disposed of properly in accordance with relevant laws and local government standards. When disposing of empty containers, completely remove the contents.

14. Transport information

International regulations	
UN No. :	No information
Proper shipping name :	No information
Class :	No information
Sub risk :	No information
Packing group :	No information
Marine pollutant (sea) :	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code :	Not applicable

Japanese regulations

Land regulations information : Not applicable

Maritime regulations information : Not applicable

Aviation regulations information : Not applicable

Special safety measures : Do not add heavy goods.

When transporting, avoid direct sunlight, load containers without damage, corrosion, or leakage, and securely prevent collapse of cargo.

15. Regulatory information (Japanese law)

Air pollution control act Hazardous air pollutants (45 of central environment council 9th report)

* Laws and regulations are examples and do not cover domestic laws and regulations.

16. Other information

References, etc. : GHS classification results database: NITE website
GHS model SDS information: JISHA website
Ministry of health, labor and welfare website
JIS Z7252 : 2019
JIS Z7253 : 2019
Selection Manual for Protective Equipment for Prevention of Skin Damage, etc.
(Ministry of Health, Labour and Welfare Feb.2024)

*Caution:

Although hazard and harmfulness evaluations are based on the data and information available at the current time, they may not be sufficient.

Please handle with care.

Furthermore, the data and evaluations described herein are not in any way guaranteed. The descriptions refer to normal handling.

Regarding special handling, please handle based on the safety measures which are suitable for the intended applications and methods of use.

This SDS is an English translation of a document prepared in Japanese in accordance with JIS Z7253:2019.