

# SAFETY DATA SHEET

in accordance with Globally Harmonized System of Classification of Chemicals

No. U-1000GHS-02  
Identity (As Used on Label and List)  
Revised Date: January 29, 2021  
Prepared Date: July 2, 2018

## ASAHI PERCHLOR (SUPER S)

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### 1.1 Identification of the substance or preparation

Product name: ASAHI PERCHLOR (SUPER S)  
Chemical name: Tetrachloroethylene

#### 1.2 Use of the substance/preparation

solvent

#### 1.3 Company/undertaking identification

##### Manufacturer's Name

AGC Inc.

##### Address

1-5-1, Marunouchi, Chiyoda-ku, Tokyo 100-8405, Japan

##### Telephone Number for Information

+81-3-3218-5482

##### Facsimile Number for Information

+81-3-3218-7845

### 2. HAZARDS IDENTIFICATION

Application of the classification rules in GHS

#### PHYSICAL HAZARDS

Flammable liquid	not classified
Self-reactive substances and mixtures	not classified
Pyrophoric liquid	not classified
Corrosive to metals	not classified

#### HEALTH HAZARDS

Acute toxicity(oral)	not classified
Acute toxicity(inhalation)	Category 4
Skin corrosion and irritation	Category 2
Serious eye damage and eye irritation	Category 2B
Germ cell mutagenicity	not classified
Carcinogenicity	Category 1B
Reproductive toxicity	Category 2

Specific target organ systemic toxicity after single exposure	Category 1 Category 3
Specific target organ systemic toxicity after repeated exposure	Category 1 Category 2
Aspiration toxicity	Classification not possible

**HAZARDOUS TO THE AQUEOUS ENVIRONMENT**

Acute	Category 1
Chronic	Category 1



**Signal word :** Danger

**Hazard Statement**

- H332 Harmful if inhaled.
- H315 Causes skin irritation.
- H320 Causes eye irritation.
- H361 Suspected of damaging fertility or the unborn child.
- H362 May cause harm to breast-fed children.
- H350 May cause cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
- H370 Causes damage to organs (liver, respiratory tract, nerve) .
- H336 May cause drowsiness or dizziness.
- H372 Causes damage to organs (liver, respiratory tract, nerve) through prolonged or repeated exposure .
- H373 May causes damage to organs (kidney) through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statement**

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

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#### Components

CAS-No	Name	% Weight
127-18-4	Tetrachloroethylene	≥ 99
106-88-7	1,2-Epoxybutane	0.1

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### 4. FIRST-AID MEASURES

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- **Inhalation:**  
Remove the victim from the contamination immediately to fresh air and keep the victim warm and quiet. Obtain medical attention immediately.  
If breathing is weak, irregular or has stopped, loosen his collar and belt and administer artificial respiration.
- **Skin Contact:**  
Remove all contaminated clothing, shoes and socks from the affected areas as quickly as possible, cutting them off if necessary.  
Wash the affected area with plenty of water using a mild soap or a detergent for skin.  
If irritation persists, obtain medical attention immediately.
- **Eye Contact:**  
Immediately flush eyes with running water at least 15 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention immediately.
- **Ingestion:**  
DO NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits  
Keep an unconscious person the patient in the lateral position in the transportation.  
Obtain medical attention immediately.

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### 5. FIRE-FIGHTING MEASURES

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- **Suitable extinguishing media:** Use media appropriate for surrounding fire and/or materials. Dry chemical powder, form or carbon dioxide. No self-combustibility.
- **Unsuitable extinguish media/methods:** none
- **Hazardous combustion product or gases:** Hydrogen chloride, phosgene.
- **Special protective equipment for fire fighters:** Fire fighters should use pressure-demand self contained breathing apparatus due to possible exposure to hydrogen chloride and phosgene gases.
- **Additional Information:** Shut off fuel to fire if possible to do so without hazard.  
Vapours concentrated in a confined or poorly-ventilated area can be ignited upon contact with a spark, flame or high-intensity source of heat. This can occur at concentrations in air of approximately 8-10.5%.

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## 6. ACCIDENTAL RELEASE MEASURES

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### Personal precautions:

Ensure adequate ventilation.

Unprotected personnel should move upwind of spill. Evacuate non essential personnel.

Only personnel equipped with proper respiratory and skin/eye protection should be permitted in area.

### Environmental precautions:

Shut off source of ignition and ventilate spill area.

Do not wash away into shower or waterway.

Take precautions as necessary to prevent contamination of ground and surface waters.

### Methods for cleaning up/taking up:

Sweep up to avoid slipping hazard and dispose of in accordance with applicable regulations.

Recover or absorb spilled material on sawdust or vermiculite and sweep into closed containers for disposal.

### Additional information:

Information for safe handling looks up chapter 7.

Information for disposal looks up chapter 13.

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## 7. HANDLING AND STORAGE

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### Handling

In doors, use with sufficient ventilation to keep employee exposure below recommended limits.

Avoid leak, overflow and dispersal. Prevent form vapour.

In case of chance exposure to this substance wear suitable protective glove, eye protection and respiratory equipment. Keep upwind of work area.

Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

Keep container tightly closed when in not use.

Waste fluid takes up and place in closed containers for disposal.

Use floor material which is able to prevent soil infiltration. To avoid cracks of floor.

Mechanical ventilation should be used in low places because vapour is 4.5 times as heavy as air.

### Storage

Store in cool, dry, well –ventilated location. Keep away from sunlight.

Keep container tightly closed.

Prevent spills from entering sewers, watercourses or low areas.

Use floor material which is able to prevent soil infiltration.

Build roof or cover by vinyl sheet in the case of storage container in an outdoor location.

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## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

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### Ingredients with occupational exposure limits to be monitored

- **Material:** Tetrachloroethylene  
**CAS No.** 127-18-4  
**ACGIH (2015) TLV-TWA:** TLV-TWA: 25ppm, A3; STEL, 100ppm  
**MAK(2013):** Carcinogenic Substance. The database is insufficient for the establishment of a MAK .

- **Material:** 1,2-Epoxybutane  
**CAS No.** 106-88-7  
**ACGIH (2015) TLV-TWA:** TLV-TWA not set

#### **Exposure controls**

#### **occupational exposure controls**

#### **Engineering Controls:**

Local exhaust ventilation required.

#### **Personal protection:**

- **Respiratory Protection:** A NIOSH/MSHA-approved air-purifying respirator equipped with organic vapor cartridges for concentrations up to 500 ppm. An air-supplied respirator if concentrations are higher or unknown.
- **Eye Protection:** Use chemical safety goggles when there is potential for eye contact.
- **Skin protection:** Impervious gloves
- **Other protection:** If need, protective clothing and rubber boot should be used.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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- **Appearance and Odour:** Colourless liquid with ether-like odour.
- **Boiling Point:** 121.2deg.C
- **Specific Gravity (H<sub>2</sub>O = 1):** 1.62
- **Vapour Pressure:** 2.1MPa (20 deg.C)
- **Melting Point:** -22.2 deg.C
- **Vapour Density (Air = 1):** 5.72
- **Evaporation Rate (Ethyl ether = 1):** 0.09
- **Solubility in Water:** 0.015 g/100g (20deg.C)

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## 10. STABILITY AND REACTIVITY

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**Conditions to avoid:** Open flames, hot glowing surfaces, or electric arcs.

**Stability:** Stable

**Materials to avoid (Incompatibilities):** May react violently with alkali and alkaline earth metals such as sodium, potassium and barium. Avoid mixing with caustic soda, caustic potash, or oxidizing materials.

**Hazardous decomposition products:** Hydrogen chloride, phosgene.

Risk of flash and explosion in the case of contact high energy igniters or oxygen in concentrated amount atmosphere. May form toxicity gases by decomposition.

The substance decomposes on contact with strong alkali producing dichloroacetylene, which increases fire hazard. Reacts violently with metal powders such as magnesium, aluminium, titanium, and barium. Slowly decomposed by light in presence of moisture, with formation of corrosive hydrochloric acid.

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## 11. TOXICOLOGICAL INFORMATION

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**Health Hazardous (Acute and Chronic):**

**Animal Data:** Tetrachloroethylene

Acute  
LD50 Dermal, Mouse 5000 mg/kg  
LC50 Vapor, Rat 7071 ppm, 4 hours  
LD50 Oral, Rat 2400 - 13000 mg/kg

**Mutagenicity Data:**

- Ames Assay; Negative
- Chromosome Aberration; Negative

**Carcinogenicity**

Tetrachloroethylene

- NTP: R
- IARC Monographs: 2A
- EU: 2
- OSHA Regulated: N/E

1,2-Epoxybutane

- IARC Monographs: 2B
- EU: 2

This substance causes cancer in mice, and there is no evidence that it is a carcinogen in rats. Humans exposed to this substance have not been studied well enough to give much information. The epidemiological human studies report that it is not clear whether this substance causes cancer. (But you should treat this substance as a likely cause of human cancer.)

**Other information**

The most famous symptom of acute intoxication is narcotic action. Many fatal accidents were reported. Repeated exposure can damage the liver and kidneys.  
Irritating to skin because this substance can dissolve your skin's natural protective oils.  
Frequent or prolonged skin contact can cause irritation and dermatitis (skin rash), with dryness, redness, flaking, and cracking of the skin.  
Though this substance can be absorbed into the body slowly through healthy skin.

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## 12. ECOLOGICAL INFORMATION

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Tetrachloroethylene

**Biodegradability:** BOD 11%

**Bioaccumulation:** Bio concentration factor: <77.1/6weeks

Aquatic Crustacea EC50 Water flea (Daphnia magna) 0.602 mg/l, 48 hours

Acute Crustacea EC50 Water flea (Daphnia magna) 6.1 - 9 mg/l, 48 hours

Fish LC50 Rainbow trout, donaldson trout 4.73 - 5.27 mg/l, 96 hours  
(Oncorhynchus mykiss)

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## 13. DISPOSAL CONSIDERATIONS

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Contaminated sawdust, vermiculite or porous surface must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated or must be treated in a permitted hazardous waste management facility. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination.

Comply with national and local regulations

Do not dump this product into sewers, on the ground or into any body of water.

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#### 14. TRANSPORT INFORMATION

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**Land transport (ADR/RID):**

UN: 1897

**Proper Shipping Name:** TETRACHLOROETHYLENE

**Class:** 6.1

**Packing Group:** III

**Sea transport (IMDG 29th amendment!):**

UN: 1897

**Proper Shipping Name:** TETRACHLOROETHYLENE

**Class:** 6.1

**Packing Group:** III

**Marine pollutant:** YES

**Air transport (ICAO/IATA, edition 2003):**

UN: 1897

**Proper Shipping Name:** TETRACHLOROETHYLENE

**Class:** 6.1

**Packing Group:** III

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#### 15. REGULATORY INFORMATION

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**Ensure this materials in compliance with federal requirements and ensure conformity to local regulation.**

**Other information**

**Regulations**

**TSCA Status:**All components in this product are listed on the TSCA Inventory

**Council Directive 92/32/EEC Status:** 204-825-9

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#### 16. OTHER INFORMATION

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**N/D:** no data

**N/A:** not applicable

**N/E:** not established

**MAK:** maximum workplace concentration

**ACGIH:** American Conference of Governmental Industrial Hygienists

Changes were made in sections: Section 1,2,3,9,11,12(2021.1)

The product is not designed for special applications such as pharmaceutical, medical use.

This Safety Data Sheet is offered only for your information, consideration and investigation.

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