

Material Safety Data Sheet (MSDS)

1. Product Name

Trivalent Chromium Blue-White Passivization_ TCP 970

2. Composition / Information on Ingredients

Ingredient	CAS No.	Weight Percentage
Chromium Sulfate	10101-53-8	25%
Citric Acid	5949-29-1	20%
Sodium Sulfate	7757-82-6	8%
Water	7732-18-5	47%

3. Hazards Identification

Hazard Classification: Does not meet hazard classification criteria

Fire & Explosion Risk: Non-flammable and non-explosive; no special hazards under normal use

Environmental Hazard: Harmful to the environment, especially polluting water bodies

Health Hazards:

1. Eye & skin contact may cause mild inflammation if untreated.
2. Inhalation irritates nasal, throat and bronchial mucous membranes severely, causing soreness.

4. First-Aid Measures

Eye Contact

Immediately flush eyes with running clean water for 15 minutes. Hold eyelids open with fingers to ensure full flushing of eyeballs and inner eyelids. Seek ophthalmic medical treatment promptly if irritation persists due to insufficient flushing.

Skin Contact

Wipe excess liquid off quickly with cloth or tissue, then rinse thoroughly with plenty of running water or skin cleanser. Remove contaminated clothing and footwear and rinse thoroughly. If heavy contamination occurs, rinse skin before removing clothes. Consult a doctor if skin irritation remains after inadequate cleaning.

Ingestion

Rinse mouth with clean water right away. If possible, give milk mixed with egg white to form a protective film on mucous membranes of throat, esophagus and stomach to reduce chemical burns. Seek hospital gastric lavage if necessary.

Inhalation (High Exposure)

Remove victim to fresh air for rest, then send to hospital for further treatment.

5. Fire-Fighting Measures

Suitable Extinguishing Media

Water, foam, dry powder, carbon dioxide (CO₂), sand

Unsuitable Extinguishing Media: None

Fire Response Instructions

Cut off all ignition sources immediately when adjacent fire occurs. Relocate containers to a safe area if feasible. Maintain a safe distance during fire suppression. Firefighters must wear full protective clothing and respirators.

6. Accidental Release Measures

1. Isolate the spill site and restrict unauthorized personnel access; identify leak source to stop further outflow. Wear full protective gear during cleanup.
2. Minor spills: Wipe up with absorbent cloth or absorb with soil; rinse residual liquid with water.
3. Major spills: Use sandbags to contain spread, pump liquid into corrosion-resistant containers for recovery. Neutralize unrecoverable residual wastewater with slaked lime or sodium hydroxide to acceptable pH range before discharge; direct discharge is prohibited to avoid environmental pollution.

7. Handling and Storage

Handling Precautions

Avoid splashing liquid onto eyes and skin. Wash hands and face thoroughly after operation. Maintain adequate running water on-site for emergency use; ensure sufficient ventilation in work areas.

Storage Precautions

Store containers in cool, shaded, well-ventilated areas away from direct sunlight; keep away from high temperature. Separate from strong acids, strong alkalis, oxidants and reducing agents. Stack containers to a maximum of two layers to prevent packaging rupture. Keep lids tightly sealed and avoid long-term storage. Supply ample clean water at storage site for emergency response.

8. Exposure Controls / Personal Protection

Ventilation

Provide sufficient mechanical ventilation in work areas.

Auxiliary Facilities

Install wash stations and cleaning equipment near workstations for post-operation cleaning of hands and face.

Personal Protective Equipment (PPE)

Eye/Face Protection: Safety goggles and face shield as required

Skin Protection: Rubber gloves, rubber boots

Respiratory Protection: Gas mask

Other Work Rules

No smoking or eating in work areas; shower and change clothes after work shifts.

9. Physical and Chemical Properties

- Appearance: Dark green transparent liquid
- Odor: Odorless
- Boiling Point: 112 °C
- Specific Gravity: 1.28 - 1.32
- Viscosity: No available data
- pH Value (5% aqueous solution): 2.8 - 3.2
- Solubility: Fully soluble in water
- Volatility: Only water content evaporates

10. Stability and Reactivity

- Stability: Chemically stable under normal use; non-flammable aqueous solution
- Flash Point: None
- Flammability: Non-combustible
- Explosion Risk: Non-explosive
- Hazardous Reactions: Stable under regular use conditions
- Hazardous Decomposition Products: None
- Incompatible Materials: Corrodes metals
- Other: No additional hazards

11. Toxicological Information

- Mild skin and mucous membrane irritation
- Mild corrosive property

12. Ecological Information

No test data available

13. Disposal Considerations

Disposal Method

1. Wastewater shall be treated to meet hazardous waste discharge standards before release. Concentrated waste liquid may be diluted and neutralized with alkali, or entrusted to professional hazardous waste disposal agencies.
2. Disposal Notes: Proper disposal is mandatory; random dumping is forbidden to prevent environmental contamination.

14. Transport Information

- Hazard Classification: Oxidizing, Corrosive Liquid
- Domestic Hazard Code: 51527
- UN Number: 3098
- Packing Group: Group III
- Packaging Mark: Corrosive Substance Mark

15. Regulatory Information

Applicable Regulation: Catalogue of Hazardous Chemicals (2002 Version) issued by State Administration of Work Safety

16. Other Information

All information provided in this MSDS is issued by Somei company, Ltd. Users shall reference this data in combination with actual operating conditions.