Material Safety Data Sheet

Section 1. Identification of the chemical and supplier

Product Name: Metallographic layering agent **Synonyms:**
commodity code: SEP 56
(M)SDS Number: 3406EN
Relevant identified use(s): Laboratory metallographic analysis.
Emergency telephone number: 13814829868（24h）
Name of the company: Trojan (Suzhou) Material Technology Co., Ltd
Address of the company: Building 26, No. 228 Gongtang Road Luzhi Town,Wuzhong District, Suzhou, China.
Post code: 215000 Fax number: 0512-67508229
Telephone number: 0512-67580617
E-mail address: sales@trojanchina.com

Section 2. Hazards identification

Hazard classification according to GHS:

Acute Toxicity –Inhalation	**Category 1**	**(H304)**

Hazard pictograms**:**



Signal word: Danger

Hazard statements:
H304 - Swallowing and entry into the respiratory tract may cause serious harm
H315 - Cause skin irritation

Precautionary statements:

1. **Prevention:**

-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
-Do not eat, drink or smoke when using this product.
-Wear protective gloves/protective clothing/eye protection/face protection.
- Store in a well-ventilated place. Keep container tightly closed.

2. **Response:**

- In case of fire: use suitable extinguishing equipment to extinguish the fire.
- If swallowing: rinse mouth, prompt vomiting, seek medical advice as soon as possible.
- In case of contact with eyes: open eyelids while standing, flush contaminated eyes with gentle water.
-If skin contacting: rinse clean with water.

3. **Storage:**

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

4. **Disposal:**

- Collect centrally and dispose of contents/containers in accordance with applicable local/regional/national/international regulations.

Section 3. Composition/information on ingredients

Name： Metallographic Layering Agent			
Substances			
Chemical name	**EC No.**	**CAS No.**	**Weight-%**
Ferric chloride	231-729-4	7705-08-0	1-10
Water	231-791-2	7732-18-5	90-99

Section 4. First-aid measures

General advice: Immediate medical attention is required. Show this material safety data sheet (MSDS) to the doctor in attendance .

Description of necessary first-aid measures

If inhaled

This can cause serious lung damage if inhaled. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use isolation items during mouth-to-mouth resuscitation. If breathing is difficult, oxygen is given (by trained personnel).Seek medical attention immediately. Delayed pulmonary edema may occur.

Following skin contact

Wash immediately with soap and plenty of water, and remove contaminated clothing and shoes. See a doctor if you develop eczema or other skin complaints.

Following eye contact

Immediately rinse with plenty of water for at least 15 minutes, including under eyelids. Keep your eyes open while rinsing. Don't rub the affected area. If you wear contact lenses and can easily remove them, remove contact lenses. Continue rinsing.

Following ingestion

Swallowing is an inhalation hazard that can enter the lungs and cause damage. Do not induce vomiting. If spontaneous vomiting occurs, lower your head below your hips to prevent inhaling the vomit. Rinse your mouth with water and drink plenty of it. Do not give anything through the mouth to an unconscious patient. Seek medical attention immediately.

Most important symptoms/effects, acute and delayed

Difficulty in breathing, coughing and/or wheezing and dizziness.

Advice for protecting the rescuer

Remove all sources of fire. Ensure that health care personnel are aware of the materials involved, take their own protective measures and prevent the spread of contamination, wear personal protective clothing and avoid direct contact with skin. Use isolation items during mouth-to-mouth resuscitation and personal

protective equipment as required.

Special note to the doctor

Because of the risk of inhalation, vomiting or gastric lavage should not be taken unless the reason for the risk is the presence of another toxic substance.

Section 5. Firefighting measures

Suitable extinguishing media: Chemical dry powder, carbon dioxide (CO_2), water spray, soluble foam.

Specific hazards arising from the substance or mixture

Special hazards caused by chemicals. Products and empty containers should be kept away from heat and fire sources. In case of fire, spray the tank to cool it.

Special fire extinguishing procedure: N.A.

Special protective actions for fire-fighters: Firefighters should wear self-contained breathing apparatus and full fire fighting clothing and use personal protective equipment.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Evacuate personnel to safe areas and use personal protective equipment as required.Take precautions against electrostatic discharge, do not touch or pass through leaking material, and ensure adequate ventilation.

Environmental precautions: To prevent further leakage or spillage as far as is safe and practicable.

Methods and materials for containment and cleaning up

Methods for containment: If you can do this without risk, stop the leak, do not touch or pass through the leaking material, and build embankments far away from the leaking fluid for subsequent disposal.

Methods for cleaning up: Precautions for electrostatic discharge are dammed, absorbed with inert absorbent material, collected and transferred to appropriately labeled containers.

Section 7. Handling and storage

Precautions for handling

Use personal protective equipment. Do not breathe in steam or smoke. Keep away from heat source/spark/open flame/hot surface. No smoking. Take precautions against electrostatic discharge. Use local exhaust ventilation.

Precautions for storage

Keep container tightly closed and in a dry, cool and well ventilated place. Keep away from heat sources, sparks, flames and other ignition sources (i.e. lights, motors and static electricity) and store in appropriately labeled containers. Storage in accordance with specific national regulations, storage in accordance with local regulations, storage place must be locked. Store out of reach of children. Keep away from other materials.

Operation cautions

Do not eat, drink or smoke when using this product. Do not take contaminated work clothes out of the

workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before rest and immediately after handling the product.

Section 8. Exposure controls/personal protection

Engineering control: N.A. **Occupational Exposure limit values**: This product is supplied free of any hazardous substances that have occupational exposure limits set by a region-specific regulatory authority.
Control parameters - 8 hours daily average admissible concentration/short time average admissible concentration/maximum admissible concentration：N.A. - biological indicator：N.A.
Personal protection equipment - Breath protection: No special requirements. -Hand protection: Avoid direct contact and wear protective gloves. -Eye protection: Tightly sealed goggles. If splashing is a possibility, wear safety glasses with a side guard. -Skin and body protection**:** No special requirements.
Hygiene measures: Air pollution control requirements.

Section 9. Physical and chemical properties

Appearance: Yellow liquid	**Odor**: Slight smell
Odor threshold: N.A.	**Melting point/freezing point :** -5℃
pH:5-7	**Initial boiling point and boiling range**:100℃
Flammability: non-flammable	**Flashpoint: -**
Vapor pressure: 2.67kPa/20℃	**Vapor density :**N.A.
Relative density: 1.06	**Solubility: -**

Section 10. Stability and reactivity

Stability and reactivity：Stable
Possible hazardous reactions under special circumstances: /
Conditions to avoid: Strong reducing agent, metal, etc.
Hazardous decomposition products: /

Section 11. Toxicological information

Exposure pathways: eye/ ingestion
Symptom: **Inhalation**: Specific test data for this substance or mixture are not available. Inhalation can cause severe lung damage and can lead to pulmonary edema, which can be fatal. May cause respiratory irritation. **Eye contact:** Specific test data for this substance or mixture are not available. May cause irritation.

Skin contact: Drying-out effect resulting in rough and chapped skin. **Ingestion**: Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. **Information on toxicological effects:** **Symptoms**: Difficulty in breathing, coughing and/or wheezing and dizziness.

Chronic or chronic toxicity:

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Skin corrosion/irritation	No information available
Severe eye injury/eye irritation	No information available
Respiratory or skin sensitization	No information available
Germ cell mutagenesis	No information available
Carcinogenicity	No information available
Reproductive toxicity	No information available
STOT -single exposure	No information available
STOT -repeated exposure	No information available
Aspiration Hazard	Swallowing and entry into the respiratory tract can be fatal

Section 12. Ecological information

Ecotoxicity: No information available.
Persistence and Degradability: The product degrades easily.
Bioaccumulation: No information available.
Mobility in soil: No information available.
Other adverse effects: No information available.

Section 13. Disposal considerations

Waste treatment methods:	
Residues/waste from unused products	Dispose of waste in accordance with local regulations and environmental regulations.
Contaminated Packaging	No information available.

Section 14. Transport information

Special Name for Transport: Container bottles are not specified for <110 Gal.

International Transport Regulations:
UN Name: UN1773
Transport hazard class :8
Packing group: III
Marine pollutant: Y
Special transportation method and matters needing attention: No special requirements.

Others:

IMDG/IMO	
UN number	1773
Proper Shipping Name	FERRIC CHLORIDE, ANHYDROUS
Hazard Class	8
Packing Group	III
Marine Pollutant	Y
Environment Hazards	Y
Special provisions	N.A.
EmS-No.	F-A, S-F
Bulk transportation basis MARPOL 73/78	N.A.
RID	
UN number	1773
Proper Shipping Name	FERRIC CHLORIDE, ANHYDROUS
Hazard Class	8
ADR/RID- Label	III
Packing Group	Y
Environment Hazards	Y
Special provisions	N.A.
Classification code	M6
ADR	
UN number	1773
Proper Shipping Name	FERRIC CHLORIDE, ANHYDROUS
Hazard Class	8
Packing Group	III
Environment Hazards	Y
Special provisions	无 274, 335, 601, 375
Classification code	M6
Tunnel restriction code	(E)
IATA	
UN number	1773
Proper Shipping Name	FERRIC CHLORIDE, ANHYDROUS
Hazard Class	8
Packing Group	III
Environment Hazards	Y
Special provisions	N.A.

Section 15. Regulatory information

Applicable regulations: China

Section 16. Others

Reference		
Tabulation unit	Name: Trojan (Suzhou) Material Technology Co., Ltd	
	Address/Telephone: Building 26, No. 228 Gongtang Road Luzhi Town,Wuzhong District, Suzhou, China./0512 67580617	
Lister	Position: Manager	Name: Zhang Huajian
Tabulation date	2026-09-01	