Material Safety Data Sheet

Section 1. Identification of the chemical and supplier

Product Name: Metallographic corrosion liquid B **Synonyms:**
commodity code:
(M)SDS Number: 3408EN
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
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E-mail address: sales@trojanchina.com

Section 2. Hazards identification

Hazard classification according to GHS:

Oxidizing liquids	Category 1	(H271)
Acute toxicity-Oral	Category 4	(H302)
Skin corrosion	Sub-category 1A	(H314)
Acute toxicity	Category 4	(H332)

Hazard pictograms**:**



Signal word: Warning

Hazard statements:
H271 May cause fire or explosion; strong oxidizer;
H302 Harmful if swallowed;
H314 Causes severe skin burns and eye damage;
H332 Harmful if inhaled.
Precautionary statements:
1. **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from clothing and other combustible materials.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P283 Wear fire resistant or flame retardant clothing.
P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.

2. **Response:**

P306+P360 IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P371+P380+P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P370+P378 In case of fire: Use ... to extinguish.
P301+P317 IF SWALLOWED: Get medical help.
P330 Rinse mouth.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P316 Get emergency medical help immediately.
P321 Specific treatment (see ... on this label).
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P317 Get medical help.

3. **Storage:**

P420 Store separately.
P405 Store locked up.

4. **Disposal:**

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Section 3. Composition/information on ingredients

Name： Metallographic corrosion liquid A

Substances

Chemical name	EC No.	CAS No.	Weight-%
Hydrogen peroxide	231-765-0	7722-84-1	20-30
Water	231-791-2	7732-18-5	70-80

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: Water, mist water, dry powder, sandy soil.

Specific hazards arising from the substance or mixture

Hazardous characteristics: explosive strong oxidant. Hydrogen peroxide itself is not combustible, but it can react with combustible materials to release a large amount of heat and oxygen and cause ignition and explosion. Hydrogen peroxide is most stable at pH between 3.5 and 4.5, and decomposes easily in alkaline solutions, as well as in the presence of strong light, especially short-wave rays. When heated to above 100℃, the decomposition begins rapidly. It forms explosive mixtures with many organic substances such as sugar, starch, alcohols, petroleum products, etc., and can explode under the action of impact, heat or electric spark. Hydrogen peroxide in contact with many inorganic compounds or impurities will quickly decompose resulting in an explosion, releasing a large amount of heat, oxygen and water vapor. Most heavy metals (such as iron, copper, silver, lead, mercury, zinc, cobalt, nickel, chromium, manganese, etc.) and their oxides and salts are active catalysts. Dust, cigarette ash, toner and

rust can also accelerate the decomposition. Hydrogen peroxide with a concentration of more than 74% can produce a gaseous explosion in a closed container with an appropriate ignition source or temperature.
Special fire extinguishing procedure: Firefighters must wear full - body fire - proof suits and fight the fire upwind. Move containers away from the fire and into the open as much as possible. Spray water to keep the fire container cool until the end of the fire fighting. Containers in the fire area must be evacuated immediately if they have discolored or are generating sound from the safety relief device.
Special protective actions for fire-fighters: Fire personnel must wear air breathing apparatus, fire clothing and protective gloves.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Quickly evacuate the personnel from the contaminated spill area to the safe area, and carry out isolation, and strictly restrict access. Emergency personnel are advised to wear self-contained positive pressure breathing apparatus and acid-proof overalls. Do not come into direct contact with the spill. Cut off the source of leakage as much as possible.
Environmental precautions: 1. Ventilate the leakage area. 2. Remove all ignition sources. 3. Inform relevant units of occupational safety, health and environmental protection of the government.
Methods and materials for containment and cleaning up Small leakage: absorb with sand, vermiculite or other inert material. It can also be washed with plenty of water and diluted into the wastewater system. Large leakage: build embankment or dig a pit to receive. Transfer to tank truck or special collector by pump, recycle or transport to waste disposal site for disposal.

Section 7. Handling and storage

Precautions for handling Closed operation, comprehensive ventilation. Operators must be specially trained and strictly follow the operating procedures.
Precautions for storage Store in a cool, ventilated warehouse. Keep away from fire and heat. The storage temperature should not exceed 30℃. Keep container sealed. Should be separated from inflammable substance, reducing agent, active metal powder, etc., avoid mixed storage by all means. The storage area should be equipped with leakage emergency treatment equipment and appropriate storage materials.
Operation cautions:

Operators are recommended to wear self-priming filter gas masks (full cover), wear polyethylene gas suits, and wear neoprene gloves. Keep away from fire and heat. Smoking is strictly prohibited in the workplace. Keep away from flammable and combustible materials. Prevent steam from escaping into the workplace air. Avoid contact with reducing agents and reactive metal powders. Handle lightly to prevent damage to packaging and containers. Equipped with the corresponding variety and quantity of fire equipment and leakage emergency treatment equipment.

Section 8. Exposure controls/personal protection

Engineering control: No special requirements. **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: Colorless transparent liquid	**Odor**: A faint peculiar smell
Odor threshold: 0	**Melting point/freezing point :**-2℃(no water)
pH:/	**Initial boiling point and boiling range**: 158℃(no water)
Vapor pressure: /	**Vapor density :** 0.13(15.3℃)
Relative density: Relative density (water =1) : 1.46 (no water)	**Solubility:** Soluble in water, alcohol, ether, insoluble in benzene, petroleum ether.

Section 10. Stability and reactivity

Stability and reactivity：Unstable.
Possible hazardous reactions under special circumstances: N
Conditions to avoid: Flammable or combustible substance, strong reducing agent, copper, iron, ferric salt, zinc, active metal powder.
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: The substance may be hazardous to the environment and special attention should be paid to water bodies. does not accumulate in the body.

Persistence and Degradability: /

Bioaccumulation: No information available.

Mobility in soil: No information available.

Other adverse effects: Because of its alkalinity, the substance is harmful to the environment and special attention should be paid to fish and mammals.

Section 13. Disposal considerations

Waste treatment methods: After being diluted with water, decomposition occurs and oxygen is released. After sufficient decomposition, the waste liquid is discharged into the wastewater system.

Section 14. Transport information

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

International Transport Regulations:
UN Name: UN2014
Transport hazard class : 8
Packing group: II
Marine pollutant : N
Special transportation method and matters needing attention: No special requirements.

Others:

IMDG/IMO	
UN number	2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	8
Packing Group	III
Marine Pollutant	N
Environment Hazards	N
Special provisions	N.A.
EmS-No.	F-A, S-F
Bulk transportation basis MARPOL 73/78	N.A.
RID	
UN number	2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	8
ADR/RID- Label	III
Packing Group	N
Environment Hazards	N
Special provisions	N.A.
Classification code	M6
ADR	
UN number	2014
Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	8
Packing Group	III
Environment Hazards	N
Special provisions	无 274, 335, 601, 375
Classification code	M6
Tunnel restriction code	(E)
IATA	
UN number	2014

Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Hazard Class	8
Packing Group	III
Environment Hazards	N
Special provisions	N.A.

Section 15. Regulatory information

Applicable regulations: China

Section 16. Others

Reference		
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Tabulation date	2026-09-01	