Material Safety Data Sheet

Section 1. Identification of the chemical and supplier

Product Name: Metallographic corrosion liquid A **Synonyms:**
commodity code:
(M)SDS Number: 3407EN
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:

Skin corrosion	Sub-category 1B	H314
Hazardous to the aquatic environment, short-term (Acute)	Category Acute 1	H400

Hazard pictograms**:**



Signal word: Danger
Hazard statement(s):
H314 Causes severe skin burns and eye damage;
H400 Very toxic to aquatic life.
Precautionary statements:
1. **Prevention:**
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash ... thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P273 Avoid release to the environment.
2. **Response:**
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.
P391 Collect spillage.

3. **Storage:**

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-%**
Ammonium hydroxide	215-647-6	1336-21-6	10-35
Water	231-791-2	7732-18-5	63-98

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, solubility resistant 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: /
Special protective actions for fire-fighters: Firefighters should wear self-contained breathing apparatus and full fire fighting clothing. Use personal protective equipment.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Evacuate people to safety. 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 Containment method: if you can do it without risk, stop the leak. Do not touch or pass through leaking material. Embankment was built far from the spill for subsequent disposal. Cleaning method: take preventive measures of electrostatic discharge. Dam up. Absorb with inert absorbent material. Collect and transfer 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 sources of ignition (i.e. lights, motors, and static electricity).Store in appropriately labeled containers. Storage in accordance with specific national regulations. Store in accordance with local regulations. The storage area 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. Contaminated work clothes shall not be taken 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: 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 strong pungent odor
Odor threshold: N.A.	**Melting point/freezing point :** /
pH:/	**Initial boiling point and boiling range**:/
Vapor pressure: /	**Vapor density :**/
Relative density:0.91	**Solubility:** Soluble in water and alcohol.

Section 10. Stability and reactivity

Stability and reactivity：It's stable under normal conditions.
Possible hazardous reactions under special circumstances: 1. Peroxides, strong reducing agents: violent reaction, increasing the risk of fire and explosion.
Conditions to avoid: Acids, aluminum, copper.
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.

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: Refer to relevant national and local laws and regulations before disposal. After neutralization and dilution, it 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: UN2672
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	2672
Proper Shipping Name	AMMONIA SOLUTION
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	2672
Proper Shipping Name	AMMONIA SOLUTION
Hazard Class	8
ADR/RID- Label	III
Packing Group	Y
Environment Hazards	Y
Special provisions	N.A.
Classification code	M6
ADR	
UN number	2672
Proper Shipping Name	AMMONIA SOLUTION
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	2672
Proper Shipping Name	AMMONIA SOLUTION
Hazard Class	8
Packing Group	III
Environment Hazards	Y

Special provisions	N.A.

Section 15. Regulatory information

Applicable regulations: China

Section 16. Others

Reference		
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