化学品安全技术说明书（SDS）

产品：**离心镀无铬钝化液（SYWL-388）**

编制依据：**GB/T 16483- 2008、GB/T 17519- 2013、GB 30000 系列 GHS 分类标准**

1 化学品及企业标识

1.1 商品名称：离心镀无铬钝化液（SYWL-388）

1.2 别名：金具紧固件无铬钝化处理剂

1.3 产品推荐用途：用于锌铝镁零配件、电力金具、紧固件类、锌合金表面钝化处理；形成无色透明转化钝化膜，提升抗盐雾、抗白锈防腐性能；

1.4 禁止用途：不得用于食品、医药、饮用水体系。

1.5 生产企业：昆山光华化工材料有限公司

1.6 企业地址：江苏省昆山市巴城镇湖滨北路 341 号

1.7 联系电话：13584927325

1.8 24 小时国内应急咨询电话：13584927325

1.9 编制部门：技术工程部

1.10 编制日期：2026- 08- 20

1.11 修订版本：V2.0

2 危险性概述

2.1 GHS 危险性分类：皮肤刺激（类别 2）；严重眼损伤类别 1；对水生生物有害并具有长期持续影响；不燃液体，无爆炸危险。

说明：**本品为弱碱性（pH10.0- 11.0），碱性体系可造成皮肤刺激、严重眼部损伤**。

2.2 GHS 象形图：感叹号 ⚠ GHS07

2.3 信号词：警告

2.4 危险说明： H315：造成皮肤刺激； H318：造成严重眼损伤； H412：对水生生物有害并具有长期持续影响。

2.5 防范说明：P280：戴防护手套、防护眼镜、防护面罩；P301+P330+P331：如食入：漱口，禁止催吐； P303+P361+P353：如皮肤（头发）沾染，立即脱去全部污染衣物，大量清水冲洗皮肤； P305+P351+P338：如入眼睛，

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清水持续冲洗数分钟，取出隐形眼镜继续冲洗，立刻就医； P273：避免释放到环境中。

2.6 其他危害：弱碱性液体，避免和酸性物料接触；不含铬及重金属，不含 ODS 消耗臭氧层物质，符合 RoHS、Weee 指令。

3 成分 / 组成信息

☑混合物 □纯品

组分名称	CAS 号	质量分数
有机成膜成膜组分	商业保密	10- 20 %
碱性 pH 调节剂	商业保密	5- 10 %
乳液成膜助剂	商业保密	5- 10 %
去离子水	7732- 18- 5	60- 75 %

备注：功能性组分为商业机密，仅提供浓度区间；无《危险化学品目录》列明高浓度危险组分；最终腐蚀性以第三方危险特性鉴别报告为准。

4 急救措施

4.1 吸入：转移至空气新鲜处；吸入碱性气雾引发呼吸道不适，立刻就医。

4.2 皮肤接触：立刻脱去全部受污染衣物，流动清水冲洗皮肤至少 15 分钟，出现刺激症状立即就医。

4.3 眼睛接触：立即翻开眼睑，流动清水或者生理盐水持续冲洗不少于 15 分钟，必须立刻就医。

4.4 食入：饮用足量温水，严禁催吐，禁止自行酸碱中和，立即就医。

4.5 给医生提示：本品弱碱性，可造成皮肤黏膜刺激及眼部损伤，对症处理，无特异性解毒剂。

5 消防措施

5.1 合适灭火剂：雾状水、干粉、二氧化碳、砂土。

5.2 禁止灭火剂：无特殊禁忌。

5.3 燃烧有害分解产物：高温分解产生一氧化碳、氨类烟气、有机分解产物。

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5.4 消防员防护建议：佩戴自给式呼吸器 SCBA、全套耐碱消防防护服，在上风向灭火；尽可能将容器转移至空旷区域；用水冷却火场容器；容器变色、泄压发声，人员立即撤离。

6 泄漏应急处理

6.1 人员防护：疏散无关人员；处置人员穿戴耐酸碱防护服、耐碱手套、防护面屏，严禁皮肤眼睛直接接触泄漏液体。

6.2 环境保护：严禁泄漏物流入下水道、雨水管网、河道；泄漏物必须用弱酸（稀醋酸）中和处理至 pH 6- 9 之后，方可进入废水系统。

6.3 小量泄漏：砂土、石灰石、惰性吸附材料吸附残液；稀醋酸中和至 pH 6- 9，收集进密闭容器，送入厂区废水处理系统。

6.4 大量泄漏：构筑围堤收容；稀醋酸中和；物料泵入专用收集容器，交由具备资质危废处置单位处置。

7 操作处置与储存

7.1 操作注意事项

1）密闭操作，车间加强通风；操作人员经过岗位培训，遵守作业规程。

2）避免皮肤、眼睛直接接触，佩戴全套个人防护用品。操作现场禁止佩戴隐形眼镜。

3）远离热源，工作场所禁止吸烟。

4）避免与酸类、强氧化剂混配接触。

5）轻装轻卸，防止包装桶破损泄漏；现场配备泄漏应急物资与消防器材。

7.2 储存条件

1）储存于阴凉通风库房，环境温度 5- 35℃；保持容器密封完好。

2）与酸类、氧化剂、食品化学品分开存放，严禁混储。

3）按照消防法规、危化品仓储管理要求保管。

8 接触控制 / 个体防护

8.1 职业接触限值：混合物无国家规定职业接触限值。

8.2 工程控制：生产岗位加强通风，减少气雾产生。

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8.3 呼吸防护：正常工况不需要；产生大量碱性气雾时佩戴合适的防雾滴口罩。

8.4 手部防护：耐化学橡胶防护手套。

8.5 眼睛防护：佩戴护目镜（防冲击化学品防护眼镜），操作禁止佩戴隐形眼镜。

8.6 身体防护：耐化学品工作服。



9 理化特性

外观：白色乳状液体

气味：微弱气味

pH 值：10.0- 11.0（原液）

相对密度（15℃）：1.00±0.05 g/cm³

沸点：100 ℃

闪点：无闪点（不燃液体）

溶解性：可与水任意比例互溶

燃烧性：不燃

使用工艺：常温使用；镀锌板用原液；镀锌管 1:1 稀释；槽浸工艺 1:2 稀释；适用浸泡法、喷淋法、辊涂法；钝化时间 3- 10 秒。

备注：理化参数来源本产品 CMA- COA 第三方检测报告。

10 稳定性和反应性

10.1 稳定性：常温常压储存条件下稳定。

10.2 应避免接触物质：强酸、强氧化剂。

10.3 危险反应：和强酸接触发生中和放热反应；可与强氧化剂发生化学反应。

10.4 危险分解产物：高温不完全燃烧产生氨类烟气、一氧化碳、有机分解物；常温储存无分解。

11 毒理学信息

11.1 急性毒性：该混合物无高急性毒性数据。

11.2 皮肤腐蚀 / 刺激：类别 2，反复长期接触可引发皮肤发红、红斑。

11.3 眼损伤 / 眼刺激：类别 1，可造成严重眼部损伤。

11.4 致敏性：无明确致敏记录。

11.5 致突变、致癌、生殖毒性：混合物组分未见明确致癌致突变证据。

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12 生态学信息

12.1 水生毒性：对水生生物有害，具有长期持续毒性；原液严禁直接排放水体。

12.2 生物降解性：有机组分综合生物降解率＞90%。

12.3 生物蓄积潜力：无显著生物蓄积。

12.4 其它生态效应：废水必须中和预处理达标之后排放。

13 废弃处置

13.1 化学品残余物：原液不可直接排放；使用稀醋酸中和 pH 至 6- 9 后，厂区废水站预处理，或者委托具备资质危废处置单位处置。

13.2 污染包装容器：容器充分中和清洗后回收利用；残留废液按照危险废物管理。

13.3 提示：处置全过程遵守国家、地方环境保护、危废管理法规。

14 运输信息

14.1 UN 编号：不属于危险货物，无 UN 编号。

14.2 运输危险类别：非危险化学品。

14.3 包装类别：无。

14.4 包装方式：25kg、50kg 塑料大口吨桶包装。

14.5 运输注意事项：运输前检查包装密封完好；防止暴晒、冷冻；禁止和酸类、强氧化剂、食品类货物混运；防止容器发生泄漏。

15 法规信息

本 SDS 编制参考法规：GB/T16483- 2008、GB/T17519- 2013、GB30000 系列 GHS 分类；《安全生产法》、《危险化学品安全管理条例》、RoHS、Weee 环保指令、地方环保安全生产相关规定。

说明：本产品不属于《危险化学品目录》列明的危险化学品。

16 其他信息

16.1 参考文献：本产品 CMA- COA 检测报告，企业 TDS 技术数据表，ASTM B117 防腐性能标准。

16.2 修订说明：V2.0，按照 GB/T16483- 2008 现行国标编制；依据 pH 弱碱性做 GHS 危险性分类；完整录入产品工艺使用参数。

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16.3 编制部门：昆山光华化工材料有限公司- 技术工程部。

16.4 免责声明：本 SDS 依据现有测试、文献资料编制，仅供安全操作参考；使用者结合现场工况，自行评估使用安全风险。

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Safety Data Sheet (SDS)

Product: Chrome-Free Passivation Solution for Centrifugal Galvanizing (SYWL-388)

Prepared in accordance with: GB/T 16483-2008, GB/T 17519-2013, GB 30000 series GHS classification standards

SECTION 1: IDENTIFICATION

1.1 Product identifier: Chrome-Free Passivation Solution for Centrifugal Galvanizing (SYWL-388)

1.2 Synonym: Environment-friendly non-chromate passivating agent for steel pipes and galvanized sheets

1.3 Recommended use: Used for passivation treatment of Zn-Al-Mg sheets, galvanized sheets, galvanized pipes and zinc-alloy surfaces; forms colorless transparent conversion passivation film to enhance salt-spray resistance and anti-white-rust anti-corrosion performance.

1.4 Restrictions on use: Shall not be used for food, pharmaceutical or potable-water systems.

1.5 Manufacturer: Kunshan Guanghua Chemical Materials Co., Ltd.

1.6 Address: No.341 Hubin North Road, Bacheng Town, Kunshan City, Jiangsu Province, P.R.China

1.7 Telephone: +86-13584927325

1.8 24-hour domestic emergency telephone (China): +86-13584927325

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1.9 Prepared by: Engineering Department

1.10 Date of preparation: 2026-08-20

1.11 Revision: V2.0

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 GHS Hazard Classification: Skin Irritation Category 2; Serious Eye Damage Category 1; Hazardous to aquatic life with long-lasting effects; Non-flammable liquid, no explosion hazard.

Note: This product is weakly-alkaline (pH 10.0-11.0). Alkaline properties may cause skin irritation and severe eye injury.

2.2 GHS Pictogram: Exclamation mark ⚠ GHS07

2.3 Signal word: Warning

2.4 Hazard Statements:

H315: Causes skin irritation.

H318: Causes serious eye damage.

H412: Harmful to aquatic life with long lasting effects.

2.5 Precautionary Statements:

P280: Wear protective gloves, eye-protection and face-shield.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with plenty of water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

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Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

P273: Avoid release to the environment.

2.6 Other hazards: Weak-alkaline liquid. Avoid contact with acidic materials. Chromium-free and heavy-metal-free; contains no ozone-depleting substances (ODS). Complies with RoHS and Weee directives.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

☑ Mixture ☐ Substance

Chemical name	CAS-No.	Mass fraction
Organic film-forming components	Trade secret	10-20 %
Alkaline pH-regulating agent	Trade secret	5-10 %
Emulsified film-forming auxiliary	Trade secret	5-10 %
De-ionized water	7732-18-5	60-75 %

Remarks: Key functional components are treated as trade secrets; only concentration ranges are provided. No high-concentration hazardous ingredients listed in China Catalogue of Hazardous Chemicals. Final corrosive property shall be subject to third-party hazard identification test report.

SECTION 4: FIRST-AID MEASURES

4.1 Inhalation: Remove victim to fresh air. Seek immediate medical attention for respiratory discomfort caused by alkaline-mist inhalation.

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4.2 Skin contact: Immediately remove all contaminated clothing. Rinse skin thoroughly with running water for at least 15 minutes. Seek medical help if irritation occurs.

4.3 Eye contact: Immediately hold eyelids apart, continuously flush eyes with plenty of running water or normal saline for not less than 15 minutes. Seek medical care without delay.

4.4 Ingestion: Give sufficient warm water to drink. **Do NOT induce vomiting. Do NOT perform acid-base neutralization by yourself**. Call a physician immediately.

4.5 Notes to physician: This product is weakly-alkaline; may cause skin-mucous membrane irritation and eye injury. Treat symptomatically; no specific antidote is available.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media: Water spray, dry chemical powder, carbon dioxide, sand.

5.2 Unsuitable extinguishing media: None known.

5.3 Hazardous decomposition products under fire conditions: Carbon monoxide, ammonia-containing fumes and organic decomposition substances generated upon high-temperature decomposition.

5.4 Advice for fire-fighters: Wear self-contained breathing apparatus (SCBA) and full alkali-resistant fire-fighting protective suit. Fight fire from up-wind

direction. If safe to do so, move intact containers to open area. Cool exposed containers with water spray. Immediately evacuate personnel if containers discolor or venting noise occurs.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Evacuate irrelevant personnel. Responders shall wear alkali-resistant protective clothing, alkali-proof gloves and full-face shield. Avoid direct skin-eye contact with spilled liquid.

6.2 Environmental precautions: Prevent spillage from entering sewers, storm drains and watercourses. Spilled material must be neutralized with weak-acid (dilute acetic acid) to pH 6-9 before discharging into wastewater system.

6.3 Small spill: Absorb residual liquid with sand, limestone or other inert absorbents. Neutralize with dilute acetic acid to pH 6-9. Collect waste in sealed containers and deliver to on-site wastewater treatment facility.

6.4 Large spill: Dike for containment; neutralize with dilute acetic acid. Pump liquid into dedicated collecting receptacles and hand over to licensed hazardous-waste disposal contractor.

SECTION 7: HANDLING AND STORAGE

7.1 Handling precautions

1) Operate in closed-system with adequate workshop ventilation. Operators shall receive position-specific training and follow operating procedures.

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2) Avoid direct skin-eye contact. Wear complete set of personal protective equipment. Contact lenses shall NOT be worn during operation.

3) Keep away from heat sources. No smoking in working zone.

4) Avoid mixing-contact with acids and strong oxidizing agents.

5) Handle drums carefully to prevent rupture-leakage. Keep spill-response kits and fire-fighting equipment readily available.

7.2 Storage conditions

1) Store in cool and well-ventilated warehouse; ambient storage temperature: 5-35 °C. Keep containers tightly sealed.

2) Segregate strictly from acids, oxidizing agents and food-grade commodities; no mixed-storage.

3) Store in compliance with fire-protection regulations and hazardous-chemical warehousing requirements.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Occupational exposure limits: No national occupational exposure limits established for this mixture.

8.2 Engineering controls: Provide sufficient ventilation at work stations to reduce mist generation.

8.3 Respiratory protection: Normally not required. Wear suitable mist-filter respirator when large amount of alkaline mist or aerosol is generated.

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8.4 Hand protection: Chemical-resistant rubber protective gloves.

8.5 Eye protection: Impact-resistant chemical-safety goggles; contact-lenses are prohibited during operation.

8.6 Body protection: Chemical-resistant work clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Milky-white opaque liquid

Odor: Faint odor

pH value: 10.0-11.0 (as-received liquid)

Relative density (15 °C): 1.00 ± 0.05 g/cm³

Boiling point: 100 °C

Flash point: Non-flammable, no measurable flash-point

Solubility: Fully miscible with water

Flammability: Non-combustible

Application notes: Operate at ambient temperature; use neat stock for galvanized sheet; 1:1 dilution for galvanized pipe; 1:2 dilution for immersion-bath process; applicable for immersion, spray and roll-coating process; passivation time: 3-10 s.

> Source of physical-chemical data: Third-party CMA-COA test report of this product.

SECTION 10: STABILITY AND REACTIVITY

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10.1 Chemical stability: Stable under normal ambient temperature and pressure.

10.2 Incompatible materials: Strong acids, strong oxidizing agents.

10.3 Hazardous reactions: Exothermic neutralization reaction upon contact with strong acids; chemical reaction may occur with strong oxidizing agents.

10.4 Hazardous decomposition products: Ammonia-containing fumes, carbon monoxide and organic decomposition products generated under incomplete high-temperature combustion; no decomposition under ambient storage.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Acute toxicity: No high acute-toxicity data available for this mixture.

11.2 Skin corrosion / irritation: Category 2; repeated or prolonged contact may cause skin redness and erythema.

11.3 Serious eye damage / eye irritation: Category 1; may cause severe eye injury.

11.4 Skin sensitization: No confirmed sensitization records.

11.5 Germ-cell mutagenicity, carcinogenicity, reproductive toxicity: No clear evidence of carcinogenic or mutagenic hazards for mixture components.

SECTION 12: ECOLOGICAL INFORMATION (Non-mandatory under OSHA-HCS)

12.1 Aquatic toxicity: Harmful to aquatic life with long-lasting toxic effects. Raw

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product must not discharge directly to water bodies.

12.2 Biodegradability: Overall biodegradation rate of organic components ＞ 90 %.

12.3 Bioaccumulative potential: No significant bioaccumulation.

12.4 Other ecological effects: Wastewater must be neutralized and pre-treated before discharge.

SECTION 13: DISPOSAL CONSIDERATIONS (Non-mandatory under OSHA-HCS)

13.1 Product residues: Do not discharge untreated. Neutralize waste liquid with dilute acetic acid to pH 6-9, then pre-treat via on-site waste-water system or consign to licensed hazardous-waste disposal contractor.

13.2 Contaminated packaging containers: Thoroughly neutralize and rinse containers for potential recycling. Residual waste liquid shall be managed as hazardous waste material.

13.3 Note: All disposal activities shall comply with national and local environmental-protection and hazardous-waste regulations.

SECTION 14: TRANSPORT INFORMATION (Non-mandatory under OSHA-HCS)

14.1 UN number: Not classified as dangerous goods, no UN-number assigned.

14.2 Transport hazard class: Non-hazardous chemical.

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14.3 Packing group: Not applicable.

14.4 Packaging: 25 kg, 50 kg plastic open-top IBC drums.

14.5 Transport advice: Inspect container tightness before shipment. Protect from direct sunlight and freezing. Do not co-transport with acids, oxidants or food-stuff cargo. Prevent container leakage.

SECTION 15: REGULATORY INFORMATION (Non-mandatory under OSHA-HCS)

References for SDS compilation:

GB/T16483-2008, GB/T17519-2013, GB 30000 series GHS standards;

Work Safety Production Law, Regulations on Safety Management of Hazardous Chemicals, RoHS, Weee directives, local environmental-protection & work-safety provisions.

Note: This product is not listed in China Catalogue of Hazardous Chemicals.

SECTION 16: OTHER INFORMATION

16.1 References: CMA-COA test report of this product, enterprise TDS technical data sheet, ASTM B117 anti-corrosion performance standard.

16.2 Revision note: Version V2.0. Compiled under current GB/T16483-2008 national standard; GHS classification is based on weakly-alkaline pH property; complete product application-process parameters are documented.

16.3 Prepared by: Engineering Department, Kunshan Guanghua Chemical

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Materials Co., Ltd.

16.4 Disclaimer: This SDS is compiled on the basis of available test data and literatures for safety-operation reference only. End-users shall independently assess safety risks according to actual on-site working conditions.

