

Safety Data Sheet / 安全資料表
PHIẾU AN TOÀN HÓA CHẤT

1. Chemicals and company identification 化學品與廠商資料

Nhận dạng hóa chất và thông tin về công ty

Chemicals: W/B HARDENER WNUB

化學品名稱: 水性硬化劑 WNUB

Tên thương mại: chất làm cứng dạng nước WNUB

Other name 其他名稱: ---

Tên khác: ---

Recommended use and restrictions on the use: Industrial uses

建議用途及限制使用: 限工業用途使用

Mục đích sử dụng và hạn chế sử dụng: Sử dụng trong công nghiệp

Manufacturer, importer or supplier name, Addresses, Phone:

TAI YUANG INDUSTRIES CO., LTD. (THREE KINGS PAINT)

1400, CHUNG SHEN RD, SHEN KANG TAICHUNG TAIWAN. TEL: 04-25622009

製造者、輸入者或供應者名稱、地址及電話:

太原實業股份有限公司 / 台中神岡中山路 1400 號 / 04-25622009

Tên nhà sản xuất, nhà nhập khẩu hoặc nhà cung cấp, Địa chỉ, Điện thoại:

CÔNG TY TNHH CÔNG NGHIỆP TAI YUANG (SƠN BA VUA)

1400, CHUNG SHEN RD, SHEN KANG TAICHUNG TAIWAN. TEL: 04-25622009

Emergency Phone / Fax 緊急聯絡電話/傳真電話: TEL: 119 or 04-25622009

FAX: 04-25620931

Địa chỉ liên lạc khẩn cấp / số máy Fax: ĐT: 119 hoặc 04-25622009 FAX: 04-25620931

2. Hazard identification 危害辨識資料

Chemicals Hazard classification:

Flammable liquids category 2,

Serious eye damage/eye irritation category 2A,

Specific target organ toxicity - single exposure category 3

化學品危害分類:

易燃液體第 2 級,

嚴重損傷/刺激眼睛物質第 2A 級,

特定標的器官系統毒性物質-單一暴露第 3 級

Hazard symbols 標示內容



Signal word: Danger

警示語: 危險

Hazard warning:

H225 Highly flammable liquid and vapor

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H312: Harmful in contact with skin

H317 May cause an allergic skin reaction

H412 Harmful to aquatic life with long-lasting effects

危害警告訊息：

- H225 高度易燃液體和蒸氣
- H319：造成嚴重的眼睛刺激
- H335：可能引起呼吸道刺激
- H336：可能引起嗜睡或頭暈
- H312：與皮膚接觸有害
- H317：可能引起過敏性皮膚反應
- H412：對水生生物有害並具有長效作用

Hazard prevention measures危害防範措施:

General一般:

- P101: If medical advice is needed, have product container or label at hand.
- P102: Keep out of reach of children.
- P101：如需醫囑，請將產品容器或標籤
- P102：放在兒童伸手不及之處。

Prevention預防

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- P233: Keep container tightly closed.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting/equipment.
- P242: Use only non-sparking tools.
- P261：Avoid breathing dust/fumes/gas/mist/vapors/spray.
- P264：Wash thoroughly after handling.
- P271：Use only outdoors or in a well-ventilated area.
- P280：Wear protective gloves/protective clothing/eye protection/face protection.
- P273: Avoid release to the environment.
- P210：遠離熱源/火花/明火/熱表面——禁止吸菸。
- P233：保持容器密閉。
- P240：容器和接收設備接地/等勢聯接。
- P241：使用防爆的電氣/通風/照明/設備。
- P242：只能使用不產生火花的工具。
- P261：避免吸入粉塵/煙/氣體/煙霧/蒸氣/噴霧。
- P264：作業後徹底清洗
- P271：只能在室外或通風良好處使用。
- P280 著用防護手套
- P273：避免釋放到環境中。

Response回應

- P370+378: In case of fire: Use DRY POWDER to extinguish.
- P312: Call a POISON CENTER/ doctor/.../if you feel unwell.
- P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses if present and easy to do – continue rinsing.

<p>P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P337+313: If eye irritation persists get medical advice/attention.</p> <p>P302+352: IF ON SKIN: Wash with plenty of water</p> <p>P309+311: If exposed or concerned, seek treatment/counseling</p> <p>P370+378: 火災時：使用乾粉滅火。</p> <p>P312: 如感覺不適，呼叫解毒中心/醫生</p> <p>P305+351+338: 如進入眼睛：用水小心沖洗幾分鐘。 如戴隱形眼鏡並可方便地取出，取出隱形眼鏡再繼續沖洗。</p> <p>P303+361+353: 如皮膚(或頭髮)沾染：立即脫掉所有沾染的衣服</p> <p>P304+340: 如誤吸入：將傷者轉移到空氣新鮮處，使其保持呼吸舒適的姿勢。</p> <p>P337+313: 如仍覺眼刺激：求醫/就診。</p> <p>P302+352: 如皮膚沾染：用大量水清洗</p> <p>P309+311: 如暴露到或在意，求助治療/諮詢</p> <p>Store儲存</p> <p>P403+233: Store in a well ventilated place. Keep container tightly closed.</p> <p>P403+235: Store in a well ventilated place. Keep cool.</p> <p>P405: Store locked up.</p> <p>P403+233 : 存放在通風良好的地方，保持容器密閉。</p> <p>P403+235 : 存放在通風良好的地方，保持低溫。</p> <p>P405 : 存放處須加鎖。</p> <p>Disposal處置</p> <p>P501: Dispose of contents/container to accordance with local/regional/national/international regulation</p> <p>P501 內容物之廢棄/容器(按照地方/區域/國家/國際法規)</p>		
Other hazards 其他危害 : None		

3、Composition / Information on Ingredients 成分資料 (Mixture 混合物)

Chemical component 化學性質：		
Hazardous ingredient 危害成分之中英文名稱	Concentration / Percentage 濃度或濃度範圍(成分百分比)	CAS no. 化學文摘社登記號碼
乙酸乙酯 Ethyl Acetate	24~26	141-78-6
親水性的脂肪族聚異氰酸酯 hydrophilic aliphatic polyisocyanate	74~76	160994-68-3

4、First Aid Measures 急救措施:

Emergency and First Aid Procedures 不同暴露途徑之急救方法
· Inhalation : Remove the patient to fresh air or send to hospital.
· Skin Contact : Remove clothing. Wash with water and soap very quickly
· Eye Contact : Irrigate with plenty of water and send to hospital

<p>Ingestion : Send to hospital</p> <p>吸入：將患者移至空氣流通處，若狀況嚴重立即就醫。</p> <p>皮膚接觸：移開衣物，以肥皂、清水將接觸部位洗淨。</p> <p>眼睛接觸：以大量清水沖洗，立即送醫。</p> <p>食入：立即就醫。</p>
<p>Major Disease and Harm Effect : Headache, dizziness, drowsiness, irritation.</p> <p>最重要症狀及危害效應：頭痛、暈眩、睏倦、刺激感</p>
<p>The protection of first-aiders: No available information</p> <p>對急救人員之防護：無</p>
<p>Notes to physicians : Treat symptomatically</p> <p>對醫師之提示：依據症候治療</p>

5、Fire Fighting Measure 滅火措施:

<p>Suitable Extinguishing Media: CO2.Dry chemical powder, foam.</p> <p>適用滅火劑：二氧化碳.化學乾粉.泡沫。</p>
<p>Special Exposure Hazards: Burning produces irritant fumes.</p> <p>滅火時可能遭遇之特殊危害：燃燒產生刺激煙霧。</p>
<p>Special Extinguishing Procedure: Use water to cool fire-exposed containers and protect the other material.</p> <p>特殊滅火程序：噴水可冷卻容器，保護暴露於火場之物質</p>
<p>Special Protection Equipment: Firemen have to wear breathing apparatus and protective clothing& gloves.</p> <p>消防人員之特殊防護設備：消防人員必須戴空氣呼吸器、防護衣及手套。</p>

6、Accidental Release Measures 洩漏處理方法

<p>Personal Protection: Keep away from the area before cleaning the pollution area.</p> <p>個人應注意事項：在污染區尚未完全清理乾淨前，限制人員進入該區。</p>
<p>Environmental Protection: Do not let product enter drains.</p> <p>環境注意事項：避免外洩物進入下水道。</p>
<p>Methods for Cleaning Up: Cover spill with inert absorbent material (sand).Clean contaminated surface thoroughly.</p> <p>清理方法：用泥沙或類似穩定不可燃的物質吸附，徹底清洗。</p>

7、Handling and Storage 安全處置與儲存方法

<p>Handling: No smoking in the working area. The working place avoid in a high temperature closed room.</p> <p>處置：工作場所禁止抽煙，工作場所避免高溫，保持良好通風。</p>
<p>Storage: Keep in ventilated areas and away from excessive heat and fire.</p> <p>儲存：容器置放於通風良好處，遠離熱與火源。</p>

8、Exposure Control / Personal Protection 暴露預防措施

<p>Engineering control: Local exhaust or overall ventilation equipment.</p> <p>工程控制：局部排氣裝置或整體換氣裝置</p>
<p>Control Factor 控制參數：</p> <p style="text-align: center;">TWA / STEL / CEILING /</p> <p>Biotic Index</p> <p style="text-align: center;">小時日時量平均容許濃度 / 短時間時量平均容許濃度 / 最高容許濃度 /</p>

生物指標							
EAC	乙酸乙酯	400ppm	/	500ppm	/	---	/

Personal Protection Equipment 個人防護設備：							
·Respiratory Protection: Wear a mask.							
·Hand Protection：Glove resistant to chemical.							
·Eye Protection：Wear goggles.							
·Skin & Body Protection: Protective clothing or lab coats must be worn							
·呼吸防護：戴口罩							
·手部防護：戴抗化學品手套。							
·眼睛防護：戴護目鏡.							
·皮膚及身體防護：穿戴防護衣或實驗衣。							
Hygiene Procedures: Do not eat on work, wash hands after work.							
衛生措施：工作場所嚴禁飲食，處理後徹底洗手。							

9、Physical and Chemical Properties / Characteristics 物理及化學性質

Appearance(Form & Color): transparent liquid 外觀(物質狀態、顏色)：透明液狀	Odor: with ester odor 氣味：酯類氣味
Olfactory Threshold: EAC 6.4~50 ppm 嗅覺閾值：乙酸乙酯 6.4~50 ppm	Melting point: no available information 熔點：無
pH value：no available information pH 值：無資料	Boiling Point / Boiling Range: 77°C 沸點 / 沸點範圍：77°C
Decomposition Temperature：--- 分解溫度：無資料	Flash Point 閃火點： EAC 乙酸乙酯 -4.4°C Test methods (open cup or closed cup)： Close Cup 測試方法（開杯或閉杯）：閉杯
Auto-ignition Temperature：>400°C 自燃溫度：>400°C	Exposure Limits 爆炸界限：(LEL) ~ (UEL) EAC 乙酸乙酯 2.0~11.5%
Vapor Pressure：EAC 73 mmHg 蒸氣壓：乙酸乙酯 73 毫米汞柱	Vapor Density：--- 蒸氣密度：（空氣=1）---
Specific Gravity：~1.1 g/cm ³ 密度：~1.1 克/立方公分	Solubility in Water：not soluble in water 溶解度：水中不溶
Octanol / Water distribution coefficient (log Kow): EAC 0.66~0.73 辛醇/水分配係數(log Kow): 乙酸乙酯 0.66~0.73	Vaporize rate: --- 揮發速率: ---

10、Stability and Reactivity 安定性及反應性

Reactivity : Hazardous Polymerization will not occur. 反應性：不會產生有害聚合反應
Chemical stability : Stable under normal circumstances. 安定性：正常狀況下安定
Conditions to Avoid: Sparks, static electricity 應避免之狀況：火花，靜電
Materials to avoid: Strong oxidizers. 應避免之物質：強氧化劑。
Hazardous Decomposition Products: Carbon Dioxide, Carbon Monoxide 危害分解物：著火時釋放出有毒蒸氣及氣體。如一氧化碳&二氧化碳。

11、Toxicological Information 毒性資料

Exposure means: skin, inhalation, ingestion, eye 暴露途徑：皮膚、吸入、食入、眼睛
Symptoms: headache, dizziness, drowsiness, vomiting, irritation. 症狀：頭痛、暈眩、困倦、嘔吐、刺激感
Acute toxicity 急毒性 Skin: cause mild stimulation Inhalation: will stimulate the nose and throat. Give rise to a higher concentration of headache, nausea and drowsiness. Ingestion: effects of inhaled with the same Eyes: steam will stimulate 皮膚：引起輕度刺激。 吸入：會刺激鼻、喉。更高濃度會引起頭痛、噁心、困倦。 食入：影響與吸入同 眼睛：蒸氣會引起刺激
Chronic toxicity or long-term toxicity: nerves, liver, skin influential. 慢毒性或長期毒性：對神經、肝、皮膚有影響。

12、Ecological Information 生態資料

Ecotoxicity 生態毒性		
	LC50(Fish)	EC50(Aquatic invertebrates)
BCF		
	LC50(魚類)	EC50(水生無脊椎動物)
BCF(生物濃縮係數)		
EAC 乙酸乙酯	---	---

Degradation and persistent 持久性及降解性:		
1 ethyl acetate is readily biodegradable 乙酸乙酯容易被生物分解		
2. 乙酸丁酯 EAC		
Half-life (air)	半衰期(空氣)	35.3~353 hr.
Half-life (water surface)	半衰期(水表面)	24-168 hr.
Half-life (water)	半衰期(地下水)	48-366 hr.
Half-life (soil)	半衰期(土壤)	24-168 hr.

Biological savings 生物積蓄性: EAC: No savings 乙酸乙酯:不會積蓄
The soil of mobility: to release the soil, some will evaporate, some will infiltrate the ground 土壤中之流動性: 無可用信息
Other negative effects :No available information 其他不良效應: 無可用信息

13、Disposal considerations 廢棄處置方法

Methods of waste disposal : Observe all federal, state and local regulations when disposing of this substance. 廢棄處置方法：於政府認可之焚化爐焚化。

14、Transport Information 運送資料

Number of the United Nations:1263 聯合國編號：1263
Transport hazard classification: The third type of flammable liquid 運輸危害分類: 第三類易燃液體
Type of packaging: II 包裝類別: II
Marine pollution (yes / no): NO 海洋污染物(是/否): 否
And the delivery of special attention: --- 特殊運送方法及注意事項：無

15、Regulatory Information 法規資料

Applicable laws and regulations: Labor safety and hygiene facilities, rules, rules of organic solvent poisoning prevention, road traffic safety rules Hazard and harmful substances, and marked general rules, the labor environment in the air to allow the concentration of harmful substances standards Industrial waste treatment and storage facilities clear standards 適用法規： 勞工安全衛生設施規則，有機溶劑中毒預防規則，道路交通安全規則， 危害物與有害物標示及通識規則，勞工作業環境空氣中有害物容許濃度標準， 事業廢棄物貯存清除處理方法及設施標準

16、Other Information 其他資料

Reference 參考資料	CHEMINFO database, HSDB database	
Company 製表單位	Name : TAI YUANG INDUSTRIES CO.,LTD. 名稱：太原實業股份有限公司	
	Addresses/Phone : 1400,CHUNG SHEN RD, SHEN KANG TAICHUNG TAIWAN. +886-4-25622009 地址/電話：台中縣神岡鄉中山路 1400 號 TEL: +886-4-25622009	
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