

Safety Data Sheet

安全數據表

Stoner

E408 Dry Film Mold Release™

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1. IDENTIFICATION 鑑定

Stoner Incorporated
1070 Robert Fulton Hwy.
Quarryville, PA 17566
1-800-227-5538

Product Name 產品名稱: Dry Film Mold Release™
Product Code 產品編號: E408
Product Use 產品用途: Mold Release 脫模劑
24 小時緊急電話: 1-800-424-9300 [CHEMTREC]

2. HAZARD IDENTIFICATION 危害識別

POTENTIAL HEALTH EFFECTS 對健康的潛在影響

Classification of the chemical in accordance with paragraph (d) of §1910.1200 (按照 1910.1200 (d) 段的化學分類);

GHS Hazard Symbols
危險品標誌



GHS Classification

GHS 分類

Gases under pressure - Liquefied Gas
高壓氣體 - 液化氣
Flammable Aerosol Category 2
易燃氣霧劑類別 2
Serious Eye Damage/Eye Irritation Category 2A
嚴重眼損傷/眼刺激類別 2A

Signal Word

信號詞

Warning 警告

Hazard Statements

危險說明

Flammable aerosol.
易燃氣霧劑
Contains gas under pressure; may explode if heated.
含壓縮氣體; 如果受熱可能會爆炸。
Causes serious eye irritation.
引起嚴重的眼睛刺激。

Precautionary Statements 防範說明

Prevention 預防

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
遠離熱源/火花/明火/熱表面。 - 禁止抽煙。
Do not spray on an open flame or other ignition source.
不要噴在明火或其他點火源上。
Pressurized container: Do not pierce or burn, even after use.
加壓容器: 即使使用後也不要刺穿或燃燒。
P264 - Wash thoroughly after handling.
P264 - 處理後徹底清洗。
Wear protective gloves/protective clothing/eye protection/face protection.
戴防護手套/防護服/眼部防護/防護面罩。

Response 反應

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
如果進入眼睛: 用水小心沖洗幾分鐘。如果隱形眼鏡存在且易於操作, 請摘下隱形眼鏡。
繼續沖洗。
If eye irritation persists: Get medical advice/attention.
如果眼睛刺激持續: 尋求醫療諮詢/關注。

Storage 儲存

Protect from sunlight. Store in a well-ventilated place.
避免陽光直射。存放在通風良好的地方。

Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.
避免陽光直射。不要暴露於超過 50°C / 122°F 的溫度下。

3. COMPOSITION/INFORMATION ON INGREDIENTS 組成/成分

COMPONENT 成分	CAS#	Percent 百分比
Halogenated hydrocarbon/ether blend 鹵化烴/醚混合物	Mixture 混合	80-100
Dimethyl carbinol 二甲基甲醇	67-63-0	1-20

HMIS® III* HAZARDOUS WARNINGS 危險警告:
Health (健康): 2 Flammability(易燃): 2 Physical(物理): 2 Personal Protective Equipment:See Section 8
個人保護設備: 參見第 8 節

* See www.paint.org/hmis or call the ACA at 1 (202) 462-6272 for more information on this current rating system.

*請參閱 www.paint.org/hmis 或致電 NPCA 1 (202) 462-6272 查詢更多有關目前的評級系統信息。

4. FIRST AID MEASURES 急救措施

Eyes (眼睛):	Immediately flush eyes gently with plenty of water for at least 15 minutes while holding eyelids apart. If symptoms persist or there is visual difficulty, seek medical attention. 立即用大量水沖洗眼睛至少 15 分鐘，同時將眼瞼分開。如果症狀持續或有視力障礙，請就醫。
Skin Contact (皮膚接觸):	In case of contact, immediately wash contaminated area with plenty of water for at least 15 minutes. For liquid contact, treat for frostbite if necessary. Seek medical attention if symptoms persist. Wash clothing before reuse. 如接觸，立即用大量清水沖洗污染區域至少 15 分鐘。對於液體接觸，需要治療凍傷。如果症狀持續，請尋求醫療救助。重新使用前請洗滌衣物。
Ingestion (吞入):	Contact a physician, medical facility, or poison control center immediately. 立即聯繫醫生，醫療機構或中毒控制中心。
Inhalation (吸入):	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention. Keep the victim warm and quiet. 移到新鮮空氣中。如呼吸停止，立即進行人工呼吸。如呼吸困難，給輸氧。並立即尋求醫療救助。讓受害者保持溫暖和安靜。

NOTES TO PHYSICIAN 醫護人員須知:

Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be used only in situations of emergency life support. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin; lung (for example, asthma-like conditions); kidney; liver;

由於心律可能受到干擾，兒茶酚胺類藥物（如腎上腺素）只能用於緊急生命支持的情況。暴露於下列器官（或器官系統）之前存在的疾病可能因暴露於此物質而加劇：皮膚；肺（例如哮喘樣疾病）；腎；肝；

5. FIRE FIGHTING MEASURES 消防措施

Fire and/or Explosion Hazards
火災和/或爆炸危險:

This product contains a component(s) that is considered an extremely flammable gas(es), which has vapors that are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, or other flames and ignition sources at locations distant from the material's handling point. This product contains a component(s) that is considered a flammable liquid, which has vapors that are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, or other flames and ignition sources at locations distant from the material's handling point. Containers may rupture or explode under fire conditions. 本產品含有一種被認為是極易燃氣體的成分，該成分具有比空氣重的蒸氣，並且可能沿著地面行進，或者通過通風系統移動，並通過熱，點火燈，或其他火焰和點火源，在遠離材料處理點的位置點燃。本產品含有一種被認為是易燃液體的成分，其蒸氣比空氣重，可能沿著地面移動，或通過通風系統移動，並通過熱，點火燈，或其他火焰和點火源，在遠離材料處理點的位置點燃。容器在火災情況下可能會破裂或爆炸。

Fire Fighting Instructions
消防指示:

Use CO2, foam or dry chemical. Water is generally not effective and may spread fire; however, water spray may be used from a safe distance to cool closed containers and protect surrounding area.
使用二氧化碳，泡沫或乾化學品。水一般不起作用，甚至可能會蔓延；但是，從安全距離噴水可以冷卻密封容器並保護周圍區域。

6. ACCIDENTAL RELEASE MEASURES 意外洩漏應急處理

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED 洩漏或灑出化學物應採取處理的步驟:

Ventilate contaminated area. Remove all sources of ignition. Wear appropriate personal protective equipment (PPE). Stop or reduce discharge if it can be done safely. Avoid run-off into storm sewers and ditches which may lead to natural waterways. If runoff occurs, notify authorities as required. Clean up with absorbent material. Place absorbent materials into container and close it tightly. Dispose of container properly.
通風污染區域。除去所有火源。穿戴合適的個人防護裝備（PPE）。如果可以，安全地停止或減少排放。避免流入自然水道和溝渠。用吸水材料清理。將吸水材料放入容器中並密封。正確地處理容器。

7. HANDLING AND STORAGE 處理和儲存

Handling

處理: Use with adequate ventilation. Do not use near ignition sources. Avoid prolonged or repeated contact with skin. Avoid prolonged or repeated breathing of vapor. May cause frostbite. Do not use near ignition sources. If ventilation is not sufficient, wear proper respiratory equipment. Do not store containers in excessive heat or direct sunlight. Protect container against physical damage. Normal precautions common to safe manufacturing practice should be followed in handling and storage. Wash hands thoroughly after handling. Fluorotelomers should not be handled around food, drink or tobacco products. Inhalation of vapors in the presence of tobacco products may cause polymer fume fever (see Sec. 10).

充足的通風條件下使用，請勿在火源附近使用。避免長時間或反復接觸皮膚。避免長時間或反復吸入蒸氣。可能會導致凍傷。請勿在火源附近使用。如果通風不足，請佩戴適當的呼吸設備。不要將容器存放在過熱或陽光直射的地方。保護容器免受物理損壞。在處理和儲存時應遵循安全生產指引中常見的常規預防措施。處理後徹底洗手。不應在食品，飲料或煙草製品周圍處理含氟調聚物。在煙草製品存在的情況下吸入蒸汽可能會導致聚合物煙氣熱（見第 10 節）。

Storage

儲存: Store in a cool, dry, well ventilated area away from all sources of ignition. Do not store at temperatures above 122 degrees F. Empty container may contain residues which are hazardous. Store away from incompatible materials such as materials that support combustion (oxidizing materials) and corrosive materials (strong acids or bases). Store away from oxygen cylinders or other oxidizing materials and possible ignition sources. Ground all equipment and cylinders before use. 儲存在陰涼，乾燥，通風良好的地方，遠離所有火源。不要在高於 122 華氏度的溫度下儲存。空容器可能含有有害的殘留物。遠離不兼容的材料，如支持燃燒的材料（氧化材料）和腐蝕性材料（強酸或強鹼）。遠離氧氣瓶或其他氧化物和可能的點火源。使用前將所有設備和氣瓶接地。

8. EXPOSURE CONTROLS / PERSONAL PROTECTION 個人防護處理

Engineering Controls

工程控制: Ventilation should be adequate to prevent exposures above the limits indicated below in this section of the SDS (from known, suspected or apparent adverse effects). Local exhaust should be used in areas where exposure limits may be exceeded. 通風應足以防止暴露量高於本 SDS 下面所示的限值（來自已知，可疑或明顯的不利影響）。應該在可能超過暴露限值的區域使用局部排氣。

Eye Protection

眼睛防護: Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid or airborne material. Have an eye wash station available. 處理本產品時佩戴帶有側護板的耐化學品安全眼鏡。當可能存在與飛濺或噴灑液體或空氣傳播物質的眼睛接觸的可能性時，戴上額外的護目鏡，如化學防濺眼鏡和/或面罩。需有洗眼台可用。

Skin Protection

皮膚防護: The use of chemically resistant gloves is recommended if there is any possibility of prolonged or repeated liquid contact with skin. 如果長期或反復與皮膚接觸的液體有可能，建議使用耐化學手套。

Respiratory Protection

呼吸道防護: A supplied air respirator should be used if ventilation is not sufficient to maintain exposure limits. Use NIOSH approved respirator where there is likelihood of inhalation of the product mist, spray or aerosol. 如果通風不足以維持暴露限制，應使用供氣呼吸器。如果有可能吸入產品霧，噴霧劑或氣霧劑，請使用 NIOSH 認可的呼吸器。

<u>COMPONENT 成分</u>	<u>CAS#</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER 其他</u>
Halogenated hydrocarbon/ether blend 鹵化烴/醚混合物	Mixture 混合物	Not established 不成立	Not established 不成立	1000ppm TWA (Mfr.)
Dimethyl carbinol 二甲基甲醇	67-63-0	400 ppm	400 ppm	500 ppm STE

9. PHYSICAL AND CHEMICAL PROPERTIES 物理和化學特性

Physical State: 物理狀態	Aerosol can 氣霧罐	Lower Flammability Limit (%): 易燃下限	Not applicable 不適用
Appearance: 外觀	Cloudy white 霧白	Upper Flammability Limit (%): 易燃上限	Not applicable 不適用
Odor: 氣味	Slight ethereal. 輕微的空靈	Vapor Pressure (PSIG @ 70 °F): 蒸汽壓力	68.00
Odor Threshold: 氣味限度	Mild 溫和	Vapor Density [air = 1]: 蒸氣密度	>1
pH: 酸鹼度	Not applicable 不適用	Relative Density (H2O=1): 相對密度	0.77
Melting/Freezing Point (°F): 熔點/冰點	No data available 無可用數據	Solubility in Water: 水中的溶解度	Negligible 微不足道; 0-1%
Boiling Point (°F): 沸點	No data available 無可用數據	Partial Coefficient: n- 分項係數	No data available 無可用數據
		octanol/water: 辛醇/水	

Flash Point (°F PMCC): 閃點	Not applicable 不適用	Autoignition Temperature (°F): 自燃溫度	Not applicable 不適用
Evaporation Rate: 蒸發率	Not determined 無法鑑定	Decomposition Temperature (°F) 分解溫度:	No data available 無可用數據
Flammability (solid, gas): 易燃性(固態, 氣態)	No data available 無可用數據	Viscosity, dynamic (cSt): 黏度, 動態	No data available 無可用數據
Percent VOCs (%): 揮發性有機化合物百分比	40 – 60		

10. STABILITY AND REACTION 穩定性和反應

Chemical Stability

化學穩定性: Stable. 穩定

Conditions to Avoid:

避免接觸的條件

Avoid contact with: Alkali. Alkaline earth metals. Freshly abraded aluminum surfaces. Powdered metals. Ignition sources such as open flames, sparks, static discharges or glowing metal surfaces. Oxidizers. Acetic acids Organic acid anhydrides. Acetaldehyde. Acids. Chlorine. Ethylene oxide. Isocyanates. Strong oxidizing agents. Aldehydes. Amines. Ammonia. Halogens. Halogen compounds.

避免接觸：鹼。鹼土金屬。新鮮磨損的鋁表面。粉末金屬。點火源，如明火，火花，靜電放電或發光的金屬表面。氧化劑。醋酸有機酸酐。乙醛。酸。氯。環氧乙烷。異氰酸酯。強氧化劑。醛。胺。氨。鹵素。鹵素化合物。

Decomposition Products

分解產物:

This material can be decomposed by extremely high temperatures (open flames, glowing metal surfaces, etc.) forming hydrofluoric acid and carbonyl fluoride. If heated with peroxides present, violent decomposition can occur. Burning can produce the following combustion products: Carbon dioxide and carbon monoxide. Inhalation of fluorine compounds released as decomposition products above 554° F may cause lung irritation and pulmonary edema which require medical treatment. Inhalation of decomposition products of fluorotelomer compounds may cause polymer fume fever, a temporary flu-like illness, which is accompanied by fever, chills, and sometimes cough. Symptoms usually last approximately 24 hours. Repeated episodes of polymer fume fever may cause lung damage.

這種材料可以通過極高溫度（明火，金屬表面等）分解形成氫氟酸和碳酰氟。如果加入過氧化物，可能會發生劇烈分解。燃燒可以產生以下燃燒產物：二氧化碳和一氧化碳。在 554°F 以上吸入作為分解產物釋放的氟化合物可能會引起肺部刺激和肺水腫，需藥物治療。吸入氟調聚物化合物的分解產物可能會引起聚合物煙霧熱，這是一種暫時的流感樣疾病，伴有發燒，寒戰和咳嗽。症狀通常持續約 24 小時。反復發作的聚合物煙霧熱可能會導致肺部損傷。

11. TOXICOLOGICAL INFORMATION 毒理學資料

Inhalation Toxicity:

吸入毒性

High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

高濃度可能導致中樞神經系統抑制，導致頭痛，頭暈和噁心；持續吸入可能導致無意識和/或死亡。

Reproductive &

Developmental Toxicity

繁殖與毒性發展:

No data available. 無可用數據

IARC Carcinogen Designation:

IARC 致癌物質名稱

No data available 無可用數據

Ingredient 成分

Dimethyl carbinol 二甲基甲醇

CAS

67-63-0

Toxicological Data 毒理學數據

DERMAL(真皮) LD50 Rabbit (兔子) 12800 mg/kg

ORAL(口服) LD50 Mouse (老鼠) 3600 mg/kg

ORAL(口服) LD50 Rat (鼠) 5000 mg/kg

INHALATION (吸入) LC50 Rat (鼠) 16000

ppm

INHALATION (吸入) LC50 Mouse (老鼠)

53000 MG/M3

12. ECOLOGICAL INFORMATION 生態資料

Ecological Toxicity (生態毒性):

Mobility (移動性):

No data available 無可用數據

No data available 無可用數據

Ingredient 成分

Ether propellant 乙醚推進劑

CAS

115-10-6

Toxicological Data 毒理學數據

48HR NOEC GUPPIES (孔雀魚) > 4000 mg/L

48HR NOEC Daphnia (水蚤) > 4000 mg/L No data available

Dimethyl carbinol 二甲基甲醇

67-63-0

Aquatic (水生) LC50 (96h) MINNOW (桃花魚) = 9640 mg/L

24HR EC50 Daphnia (水蚤) > 10000 mg/L No data available

13. DISPOSAL CONSIDERATIONS 廢棄處置

Disposal : Dispose according to Federal, State and local regulations.
廢棄: 根據聯邦、州和地方法規進行處理。

14. TRANSPORTATION INFORMATION 運送資料

Agency 項目	UN Number UN 編號	Proper Shipping name 正確運輸名稱	Hazard Class 危險等級	Packing Group 包裝
DOT	UN1950	Aerosols, Flammable† 壓縮氣, 易燃	2.1	Not applicable 不適用
IATA	ID8000	Consumer Commodity† 消費品	9	Not applicable 不適用
IMDG	UN1950	Aerosols, Flammable† 壓縮氣, 易燃	2.1	Not applicable 不適用

† "Limited Quantities" may be applicable for this transportation mode. 有限數量”可能適用於這種運輸模式

15. REGULATORY INFORMATION 監管信息

Warning: This product contains the following chemicals that are subject to reporting requirements for the following regulatory bodies listed below:
警告: 本產品含有以下化學品, 須遵守下列管理機構的報告要求:

COMPONENT 成分	CAS #	% BY WEIGHT 重量	Regulatory Body 監管機構
No components listed in this section. 在本節中沒有列出的成分			SARA Section 313

Toxic Substances Control Act 有毒物質控制法案

All components of this product are listed on the TSCA inventory.
本產品的所有成分都列在 TSCA 清單中。

California Prop 65 加州 65 號提案

This product contains no California Proposition 65 ingredients that cause cancer, birth defects or other reproductive harm.
本產品不含加州 65 號提案中會導致癌症, 出生缺陷或其他生殖傷害的成分。

16. OTHER INFORMATION 其他信息

Other Information 其他信息: SDS Prepared by L. Dean Swartz, SDS Coordinator

Version Date 版本日期: 12/16/17

This information contained in this SDS is believed to be accurate as of the version date, but is not warranted to be. Since the use of this information and the conditions of use of this product are not within the control of Stoner Inc, it is the user's obligation to determine the conditions of safe use.

本 SDS 中包含的此信息在版本日期內被認為是準確的, 但不保證是準確的。由於使用這些信息和使用本產品的條件不在 Stoner 公司的控制範圍內, 因此用戶有義務確定安全使用條件。