

STURDY INDUSTRIAL CO., LTD.

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Material Safety Data Sheet

1. PRODUCT/COMPANY IDENTIFICATION

Product name: CHAM-MATE	
MSDS number: 930701-006	
Supplier's name: STURDY Industrial Co., Ltd.	
Supplier's address: 168, Sec. 1, Zhongxing Road, Wugu District, New Taipei City 24872, Taiwan	
Supplier's phone: 02-29815245	
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2. COMPOSITION/INFORMATION ON INGREDIENTS:

Substance:

Chemical name: CITRIC ACID, monohydrate
Synonyms: 2-Hydroxy-1,2,3-propanetricarboxylic acid, monohydrate
CAS No.: 5949-29-1
Ingredient contributing to the hazard (%): 99-100%

Preparation:

Chemical nature:		
Component or impurities contributing to the hazard	Concentration or concentration range	The classification and hazard labeling

3. HAZARD IDENTIFICATION

The most important hazards and effects: WARNING! CAUSES SEVERE EYE IRRITATION. CAUSES IRRITATION TO SKIN AND RESPIRATORY TRACT.
Human health effects: 0 – None Environmental effects: N/A Physical & chemical hazards: N/A Specific hazards: N/A Main symptoms: The classification of the product: --

4. FIRST AID MEASURES

The different exposure routes: <ul style="list-style-type: none">● Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.● Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.● Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting
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lower and upper eyelids occasionally. Get medical attention immediately.

- **Ingestion:** Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

The most important symptom and effect:

Protection to first-aides:

Notes to physician: -

5. FIRE-FIGHTING MEASURES

Extinguishing media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Specific hazard: Fine dust dispersed in air in sufficient concentrations, and in the presence of an Ignition source is a potential dust explosion hazard.

Specific methods: -

The protection of firefighters: Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand of other positive pressure mode.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear appropriate personal protective equipment

Environmental precautions: -

Methods for cleaning up: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

7 HANDLING AND STORAGE

Handling: Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Storage: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures:

Control parameters

TWA	STEL	Ceiling	Biological standards
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Personal protective equipment:

- **Respiratory protection:** If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.
- **Hand protection:** Wear impervious protective gloves
- **Eye protection:** Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.
- **Skin and body protection:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Maintain eye wash fountain and quick-drench facilities in work area.

Hygiene measures: Good housekeeping at work point

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid	Appearance: White granules
Color: Colorless	Odor: Odorless
pH value: 2.2 (0.1 N sol)	Boiling point/boiling range: No information found
Decomposition temp.: 100°C	Flash point: °F °C Test method: () Open () Close
Autoignition temp.: --	Explosion properties: Not applicable
Vapor pressure: --	Vapor density: --
Density: 1.542	Solubility: ca. 60g / 100ml @20C (Anhydrous)

10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.
Possible hazardous reactions under specific conditions: Will not occur
Conditions to avoid: Heat, flames, ignition sources and incompatibles.
Materials to avoid: Metal nitrates (potentially explosive reaction), alkali carbonates and Bicarbonates, potassium tart rate. Will corrode copper, zinc, aluminum and their alloys.
Hazardous decomposition products: Carbon dioxide and carbon monoxide may form when heated to decomposition.

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11. OXICOLOGICAL INFORMATION

Acute toxicity:
Local effects: -
Sensitization: -
Chronic toxicity: -
Specific effects: Oral rat LD50: 3g/kg; irritation skin rabbit: 500 mg/24H mild; eye rabbit: 750 ug/24H

12. ECOLOGICAL INFORMATION

Possible environmental effects / behavior and fate: No information found

13. DISPOSAL CONSIDERATION

Methods of disposal: Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.
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14. TRANSPORT INFORMATION

International regulations: N/A
UN classification number: N/A
Local regulations: N/A
Specific precautionary transport measures and conditions: N/A

15. REGULATORY INFORMATION

Regulations: N/A

16. OTHER INFORMATION

Literature references			
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