Material Safety Data Sheet
City University of Hong Kong

MSDS
PYROGALLIC ACID
0464

PRODUCT INFORMATION

Chemical name(s): PYROGALLIC ACID
Chinese Name: 焦棓酸，焦性沒食子酸
Synonyms: 1,2,3-Trihydroxybenzene; pyrogallol; 1,2,3-benzenetriol
CAS No: 87-66-1
Molecular Weight: 126.11
Chemical Formula: C₆H₃(OH)₃

RISK SYMBOL

PHYSICAL DATA

Appearance: White to slightly yellow plates and powder.
Boiling Point: 309°C (588°F)
Odor: Characteristic odor.
Melting Point: 131 - 133°C (268 - 271°F)
Solubility: ca. 60g/100ml water @ 20°C (68°F).
Vapor Density (Air=1): 4.4
Density: 1.45
Vapor Pressure (mm Hg): 10 @ 167.7°C (334°F)
pH: No information found.
Evaporation Rate (BuAc=1): No information found.
% Volatiles by volume @ 21°C (70°F): 0

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FIRE AND EXPLOSION DATA
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Fire:
As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Explosion: Not considered to be an explosion hazard.
Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, or carbon dioxide.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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REACTIVITY DATA
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Stability: Stable under ordinary conditions of use and storage. Darkens on exposure to air or light.
Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization: Will not occur.
Incompatibilities: Oxygen, oxidizing agents, alkalis, ammonia, iodine, iron and lead salts, and phenol.
Conditions to Avoid: Air, heat, and light.

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HEALTH HAZARD DATA
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Emergency Overview
WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS THE RESPIRATORY SYSTEM, LIVER, KIDNEYS, EYES, SKIN AND BLOOD.

Potential Health Effects
Inhalation:
Irritant. May be absorbed through the lungs. Can cause coughing, sneezing or difficulty in breathing.

Ingestion:
Toxic substance. Ingestion can lead to severe gastrointestinal irritation, vomiting, and diarrhea. Pyrogallic acid absorbed through the alimentary canal can cause damage to the liver and kidneys, produce methemoglobinemia, circulatory collapse and death.

Skin Contact:

The above information is believed to be accurate to the best of our knowledge. No responsibilities or liabilities are assumed or implied by CITY U for their inaccuracies.
Irritant. Causes redness and soreness. Pyrogallic acid is readily absorbed through the skin and severe or fatal poisoning can occur.

Eye Contact: Causes irritation with redness and pain.
Chronic Exposure: Accumulation of pyrogallic acid in the system affects the kidneys and liver.
Aggravation of Pre-existing Conditions:
Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

FIRST AID MEASURES

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin Contact:
Immediately flush skin with plenty of soap and water for at least 15 minutes while removing 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 lower and upper eyelids occasionally. Get medical attention immediately.

PREVENTATIVE MEASURES

Airborne Exposure Limits: None established.
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved):
For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear protective gloves and clean body-covering clothing.
Eye Protection:
Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.
Handling and Storage:
Store in a cool, dry, ventilated area away from sources of heat or ignition. Isolate from oxidizing materials. Protect from direct sunlight. 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.

ENVIRONMENTAL PROTECTION DATA

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Spills:
Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

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