1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Pyrogallol
Product Number: P0381
Brand: Sigma
Supplier: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO  63103
USA
Telephone: +1 800-325-5832
Fax: +1 800-325-5052
Emergency Phone #: (314) 776-6555
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Target Organ Effect, Toxic by inhalation, Toxic by ingestion, Harmful by skin absorption, Corrosive, Mutagen

Target Organs
Blood, Liver, Kidney

GHS Classification
Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Germ cell mutagenicity (Category 2)
Acute aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements

Pictogram

Signal word: Danger

Hazard statement(s)
H301 Toxic if swallowed.
H312 + H332 Harmful in contact with skin or if inhaled
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H341 Suspected of causing genetic defects.
H402 Harmful to aquatic life.

Precautionary statement(s)
P280 Wear protective gloves/ protective clothing.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
present and easy to do. Continue rinsing.

HMIS Classification
- Health hazard: 3
- Chronic Health Hazard: *
- Flammability: 0
- Physical hazards: 0

NFPA Rating
- Health hazard: 3
- Fire: 0
- Reactivity Hazard: 0

Potential Health Effects
- Inhalation: Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
- Skin: Causes skin burns.
- Eyes: Causes eye burns.
- Ingestion: Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: 1,2,3-Trihydroxybenzene

Formula: C₆H₆O₃
Molecular Weight: 126.11 g/mol

<table>
<thead>
<tr>
<th>Component</th>
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<tr>
<td>1,2,3-Trihydroxybenzene</td>
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<tr>
<td>CAS-No.</td>
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<td>EC-No.</td>
<td>201-762-9</td>
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<td>Index-No.</td>
<td>604-009-00-6</td>
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4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability
Not flammable or combustible.

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self-contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form crystalline
Colour beige

Safety data
pH 5.8 at 10 g/l
Melting point/freezing point
Boiling point 309 °C (588 °F) - lit.
Flash point no data available
Ignition temperature no data available
Auto-ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure 3 - 5 hPa (2 - 4 mmHg) at 140 °C (284 °F)
13 hPa (10 mmHg) at 167.7 °C (333.9 °F)
Density 1.450 g/cm³ at 20 °C (68 °F)
Water solubility soluble
Partition coefficient: n-octanol/water no data available
Relative vapor density no data available
Odour no data available
Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
no data available

Materials to avoid
Oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
LD50 Oral - mouse - 300 mg/kg
Inhalation LC50
Dermal LD50
Other information on acute toxicity
   no data available

Skin corrosion/irritation
Skin - rabbit - Severe skin irritation - 24 h - Draize Test

Serious eye damage/eye irritation
Eyes - rabbit - Moderate eye irritation - 24 h - Draize Test

Respiratory or skin sensitization
   no data available

Germ cell mutagenicity
In vitro tests showed mutagenic effects

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
   no data available

Teratogenicity
   no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
   no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
   no data available

Aspiration hazard
   no data available

Potential health effects

   Inhalation    Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
   Ingestion    Toxic if swallowed.
   Skin        Causes skin burns.
   Eyes        Causes eye burns.

Signs and Symptoms of Exposure
Cough, Shortness of breath, Headache, Nausea, Vomiting. Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

Synergistic effects
   no data available
12. ECOLOGICAL INFORMATION

Toxicity
Toxicity to fish  LC50 - Danio rerio (zebra fish) - 41.8 mg/l - 96.0 h

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
Harmful to aquatic life.
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

no data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 2811  Class: 6.1  Packing group: III
Proper shipping name: Toxic solids, organic, n.o.s. (1,2,3-Trihydroxybenzene)
Reportable Quantity (RQ):
Marine Pollutant: No
Poison Inhalation Hazard: No

IMDG
UN number: 2811  Class: 6.1  Packing group: III  EMS-No: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (1,2,3-Trihydroxybenzene)
Marine Pollutant: No

IATA
UN number: 2811  Class: 6.1  Packing group: III
Proper shipping name: Toxic solid, organic, n.o.s. (1,2,3-Trihydroxybenzene)

15. REGULATORY INFORMATION

OSHA Hazards
Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Harmful by skin absorption., Corrosive, Mutagen

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components
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New Jersey Right To Know Components
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California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information
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