Material Safety Data Sheet
Pyrocatechol, 98% (Titr.)

ACC# 00398

Section 1 - Chemical Product and Company Identification

MSDS Name: Pyrocatechol, 98% (Titr.)
Catalog Numbers: AC418610000, AC418611000, AC418615000
Synonyms: O-Benzenediol; 1,2-Benzenediol; O-Dihydroxybenzene; 1,2-Dihydroxybenzene; O-Dioxybenzene; Pyrocatechol.

Company Identification:
Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>120-80-9</td>
<td>Pyrocatechol</td>
<td>100</td>
<td>204-427-5</td>
</tr>
</tbody>
</table>

Hazard Symbols: XN
Risk Phrases: 21/22 36/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white solid. **Danger!** Corrosive. Harmful if absorbed through the skin. Harmful if swallowed. May cause allergic skin reaction. May cause severe respiratory and digestive tract irritation with possible burns. May cause central nervous system depression. May cause methemoglobinemia. Causes eye and skin burns.

**Target Organs:** Kidneys, central nervous system, liver, lungs, cardiovascular system, red blood cells.

**Potential Health Effects**

**Eye:** Causes eye burns. May cause chemical conjunctivitis and corneal damage.

**Skin:** Harmful if absorbed through the skin. Causes skin burns. Prolonged and/or repeated contact may cause irritation and/or dermatitis. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. If absorbed, causes symptoms similar to those of ingestion. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

**Ingestion:** Harmful if swallowed. May cause severe and permanent damage to the digestive tract. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause perforation of the digestive tract. May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, and death. May cause central nervous system depression. May cause systemic effects. May cause a prolonged rise in blood pressure which may lead to degenerative changes in the kidney.

**Inhalation:** May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes chemical burns to the respiratory tract. May cause effects similar to those described for ingestion. Aspiration may lead to pulmonary edema. May cause systemic effects.

**Chronic:** Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. May cause methemoglobinemia, which is characterized by chocolate-brown colored blood, headache, weakness,
dizziness, breath shortness, cyanosis (bluish skin due to deficient oxygenation of blood), rapid heart rate, unconsciousness and possible death. Effects may be delayed.

Section 4 - First Aid Measures

**Eyes:** Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

**Skin:** Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Absorption of this product into the body may cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). Moderate degrees of cyanosis need to be treated only by supportive measures: bed rest and oxygen inhalation. For methemoglobinemia, administer oxygen alone or with Methylene Blue depending on the methemoglobin concentration in the blood. Cleansing of the entire contaminated area of the body is of utmost importance.

Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

**Extinguishing Media:** Do NOT get water inside containers. For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray. Cool containers with flooding quantities of water until well after fire is out.

**Flash Point:** 127 deg C ( 260.60 deg F)

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a
well-ventilated area. Minimize dust generation and accumulation. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Discard contaminated shoes. 

**Storage:** Keep container closed when not in use. Material can ignite if dry. Do not allow material to completely dry. Keep from contact with oxidizing materials. Corrosives area. Store in a cool, dry area away from incompatible substances.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
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</thead>
<tbody>
<tr>
<td>Pyrocatechol</td>
<td>5 ppm TWA; skin - potential for cutaneous absorption</td>
<td>5 ppm TWA; 20 mg/m3 TWA</td>
<td>none listed</td>
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</tbody>
</table>

**OSHA Vacated PELs:** Pyrocatechol: 5 ppm TWA; 20 mg/m3 TWA

**Personal Protective Equipment**

- **Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- **Skin:** Wear appropriate protective gloves to prevent skin exposure.
- **Clothing:** Wear appropriate protective clothing to prevent skin exposure.
- **Respirators:** A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

### Section 9 - Physical and Chemical Properties

- **Physical State:** Solid
- **Appearance:** white
- **Odor:** phenol-like
- **pH:** Not available.
- **Vapor Pressure:** 5 mm Hg @ 104°C
- **Vapor Density:** 3.79
- **Evaporation Rate:** Negligible.
- **Viscosity:** Not applicable.
- **Boiling Point:** 245 deg C
- **Freezing/Melting Point:** 105 deg C
- **Decomposition Temperature:** Not available.
- **Solubility:** Soluble in water.
- **Specific Gravity/Density:** 1.1493
- **Molecular Formula:** C6H6O2
- **Molecular Weight:** 110.11

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable. Substance undergoes color change upon exposure to light and air.

**Conditions to Avoid:** Dust generation, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong reducing agents, strong acids, strong bases.
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: 
CAS# 120-80-9: UX1050000
LD50/LC50:
CAS# 120-80-9:
Oral, mouse: LD50 = 260 mg/kg;
Oral, rat: LD50 = 260 mg/kg;
Skin, rabbit: LD50 = 800 mg/kg.
Carcinogenicity:
CAS# 120-80-9:
ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans
California: carcinogen, initial date 7/15/03
OSHA: Possible Select carcinogen
IARC: Group 2B carcinogen
Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: No data available.
Neurotoxicity: No data available.
Mutagenicity: No data available.
Other Studies: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

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<th>US DOT</th>
<th>IATA</th>
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<td>Packing Group:</td>
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Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 120-80-9 is listed on the TSCA inventory.

Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.

Section 12b
None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs
CAS# 120-80-9: 100 lb final RQ; 45.4 kg final RQ

SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.

SARA Codes
CAS # 120-80-9: acute, chronic.

Section 313
This material contains Pyrocatechol (CAS# 120-80-9, 100%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:
CAS# 120-80-9 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
CAS# 120-80-9 can be found on the following state right to know lists: California, Pennsylvania, Minnesota, Massachusetts.

The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act: WARNING: This product contains Pyrocatechol, a chemical known to the state of California to cause cancer. California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:
XN

Risk Phrases:
R 21/22 Harmful in contact with skin and if swallowed.
R 36/38 Irritating to eyes and skin.

Safety Phrases:
S 22 Do not breathe dust.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 37 Wear suitable gloves.
WGK (Water Danger/Protection)
CAS# 120-80-9: 2

Canada - DSL/NDSL
CAS# 120-80-9 is listed on Canada's DSL List.

Canada - WHMIS
This product has a WHMIS classification of E, D1B, D2B.

Canadian Ingredient Disclosure List
CAS# 120-80-9 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits
CAS# 120-80-9: OEL-AUSTRALIA:TWA 5 ppm (20 mg/m3) OEL-BELGIUM:TWA 5 ppm (23 mg/m3) OEL-DENMARK OEL-FINLAND:TWA 5 ppm (22 mg/m3); STEL 10 ppm (45 mg/m3) OEL-FRANCE:TWA 5 ppm (20 mg/m3) OEL-THE NETHERLANDS: TWA 5 ppm (20 mg/m3) OEL-SWITZERLAND:TWA 5 ppm (23 mg/m3) OEL-UNITED KINGDOM:TWA 5 ppm (20 mg/m3) OEL IN BULGARIA, COLOMBIA, JORDAN, KORE A check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI T LV

Section 16 - Additional Information

MSDS Creation Date: 6/15/1999
Revision #5 Date: 3/18/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.