



## Material Safety Data Sheet

Last Revision: 05/07/2007

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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** PERKALINK® 900

**MSDS NO.** FLXP0062

**Chemical Name:** 1,3-Bis(citraconimidomethyl)benzene

**Synonyms:** 1H-Pyrrole-2,5-dione, 1,1'-[1,3-phenylenebis(methylene)]bis(3-methyl)-; N,N'-Bis(citraconimido)-m-xylene

**Use:** Anti-Reversion Agent

**Manufactured By:** Flexsys America L.P. 260 Springside Drive Akron OH 44333-2433 USA

**Emergency Telephone:** CHEMTREC: 1-800-424-9300 [TOLL FREE - USA and Territories]  
703-527-3887 [ELSEWHERE - Collect Calls Accepted]  
CANUTEC: 613-996-6666 [Canada]  
SETIQ: 91-800-00-214 [Mexico]

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### 2. HAZARDS IDENTIFICATION

**Emergency Overview:** WARNING! Causes severe eye irritation. Irritates mucous membranes. CAUSES ALLERGIC SKIN REACTION.

**Eye Contact:** Causes severe eye irritation.

**Skin Contact:** CAUSES ALLERGIC SKIN REACTION. May cause a rash and itching of the skin. May cause skin defatting with prolonged exposure.

**Inhalation:** Causes irritation of the mouth, nose and throat.

**Ingestion:** Swallowing a relatively large amount of this material is unlikely to produce serious illness or death.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
1,3-Bis(citraconimidomethyl)benzene	119462-56-5	88 - 94
Citraconic Anhydride	616-02-4	0 - 1
Oligomers	None	1 - 2
Isomers	None	1 - 3

### 4. FIRST AID MEASURES

**In Eyes:** In case of contact or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

**On Skin:** Remove contaminated clothing and launder before reuse. Wash with soap and water. If irritation persists or signs of toxicity occur, seek medical attention.

**Inhaled:** Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

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MARKETED BY  
**HARWICK STANDARD  
DISTRIBUTION CORPORATION**  
60 S. Seiberling Street • Akron, Ohio 44305

#### 4. FIRST AID MEASURES

**Swallowed:** If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

**Notes To Physician:** Provide symptomatic/supportive care as necessary.

#### 5. FIRE FIGHTING MEASURES

**Flash Point (°F/C):** 495°F / 257°C  
**Flash Point Method:** Open Cup; Flash Point >360°C via Closed Cup  
**Autoignition Temp. (°F/C):** Not before melting  
**Lower Explosion Limit (LEL):** Not Determined  
**Upper Explosion Limit (UEL):** Not Determined.

**Extinguishing Media:** Use water fog, carbon dioxide, foam or dry chemical.  
**Special Exposure Hazards:** Fight fire from a safe distance and from a protected location. Use water spray to cool fire exposed surfaces. Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways.

**Special Protective Equipment:** Fire fighters should wear full impervious protective clothing, including self-contained breathing equipment.

**Unusual Fire/Explosion Hazards:** Toxic emissions may result if product is involved in a fire.

#### 6. ACCIDENTAL RELEASE MEASURES

**Spill Procedures:** Isolate the area. Stop leak if safe to do so. Wear gloves.  
**Procedure for Cleaning/Absorption:** Scoop up and remove material. Reuse if not contaminated. Do NOT spread spilled product with water.

**CERCLA Reportable Quantity (RQ):** Not Applicable

#### 7. HANDLING AND STORAGE

**Handling:** Good hygienic practices should be observed. Work clothes should be washed separately at the end of each work day. Disposable clothing should be discarded with material. Avoid generating or breathing dust. Avoid contact with eyes, skin and clothing. Reclose containers of unused product. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Do not reuse this container.

**Storage:** Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Eye Protection:** Wear safety glasses or goggles to protect against exposure.  
**Skin Protection:** Normal work coveralls. Launder contaminated clothing before reuse. SENSITIZER.

**Gloves:** Use gloves as a standard industrial handling procedure. All cleanable impervious glove types are acceptable. SENSITIZER.

**Respiratory Protection:** Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Firefighting: Use a Positive Pressure Demand Full Face Self Contained Breathing Apparatus.

**Ventilation:** Adequate ventilation should be provided to keep dust concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with the applicable air pollutions control regulations. Eliminate ignition sources. If air is to be recirculated, it must be filtered properly.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Airborne Exposure Limits:** Nuisance Dust. OSHA PEL/8Hr-TWA = 15 mg/m<sup>3</sup> (Total Dust). OSHA PEL/8-Hr TWA = 05 mg/m<sup>3</sup> (Respirable Dust). ACGIH TLV/8-Hr TWA = 10 mg/m<sup>3</sup>.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** White to Off-White Pastilles  
**Odor:** SLIGHT  
**pH:** Not Applicable  
**Specific Gravity:** 1.27 @ 20°C  
**Density:** 1260-1280 kg/m<sup>3</sup> @20°C  
**Bulk Density:** 710-760 kg/m<sup>3</sup>; 720-770 kg/m<sup>3</sup> (Compacted)  
**Melting Point (°F/C):** 83-90°C  
**Boiling Point (°F/C):** >280°C  
**Vapor Pressure:** Negligible  
**Vapor Density (Air=1):** Not Determined  
**% Volatile by Volume:** 0.5% max (heat loss)  
**Solubility in Water:** 40.7 mg/l @ 20.5°C  
**Other Solubility:** Not Determined  
**Viscosity:** Not Applicable  
**Other Data:** Ash content = 0.3% max.  
**Molecular Weight:** 324  
**Molecular Formula:** C18-H16-N2-O4

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation. Stable if protected from heat and exposure to air.  
**Hazardous Polymerization:** Will not occur.  
**Conditions to Avoid:** Keep away from heat, sparks and flame. Exposure to heat and humidity. Strong oxidizing agents.  
**Materials to Avoid:** Contact with oxidizing agents.  
**Hazardous Decomposition Products:** Carbon monoxide. Oxides of nitrogen.  
**Additional Guidelines:** None.

## 11. TOXICOLOGICAL INFORMATION

**Acute Oral LD50 (mg/kg):** > 2000 mg/kg (Rat)  
**Acute Dermal LD50 (mg/kg):** > 2000 mg/kg (Rabbit)  
**Acute Inhalation LC50 (mg/l):** Not Determined

**Target Organs / Principle Routes of Exposure:** Eyes. Inhalation. Dermal - skin.

**Ingestion:** Swallowing a relatively large amount of this material is unlikely to produce serious illness or death.  
**Skin Contact:** CAUSES ALLERGIC SKIN REACTION. May cause a rash and itching of the skin. May cause skin defatting with prolonged exposure.  
**Inhalation:** Causes irritation of the mouth, nose and throat.  
**Eye Contact:** Causes severe eye irritation.  
**Aggravated Conditions:** Dermal ailments. Allergies. This material or its emissions may cause an allergic or sensitization reaction and thereby aggravate systemic disease.  
**Carcinogenicity Comment:** This product, or one of its ingredients present at 0.1% or more, is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC or OSHA.  
**Other Information:** Decomposition products and fumes from vulcanization and cross-linking may cause eye, skin and respiratory sensitization. May be a skin sensitizer.  
**Primary Irritation Effect:** STRONG skin allergen/sensitizer in human patch tests. STRONG eye irritant.  
**Carcinogenicity:** Negative in standard tests using bacteria and/or yeast cells.

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## 11. TOXICOLOGICAL INFORMATION

**Genotoxicity:** Both negative and positive effects have been found in standard in vitro tests using animal cells. Negative for genetic activity - in vivo tests.

**Reproductive/Developmental Toxicity:** Not Determined.

## 12. ECOLOGICAL INFORMATION

**Acute Fish Toxicity:** 96Hr LC50 Rainbow Trout = 0.17 mg/l.  
**Acute Crustaceans Toxicity:** 48Hr EC50 Daphnia Magna = 2.06 mg/l.  
**Acute Algae Toxicity:** 96Hr EC50 Algae = 20 mg/l. [Total Growth].  
**Octanol/Water Coefficient:** Log P = 2.2  
**Chemical Fate Information:** Biodegradability: 31% after 28 days, 80% after 73 days (Modified Sturm Test).  
Hydrolysis: T1/2 = 68.5 hours @ pH 7 and 25°C.  
**Other Information:** Not readily biodegradable in the MITI Test [Japan]. Inherently biodegradable in the Modified Sturm Test.

## 13. DISPOSAL CONSIDERATIONS

**Disposal of Waste Method:** This material is not a RCRA hazardous waste. Bury in a licensed landfill or burn in an approved incinerator according to federal, state, and local regulations. Empty containers should be handled in a manner not to cause dusting during collection, transportation and disposal.

**Contaminated Packaging:** If empty container retains product residues, all label precautions must be observed. Store away from ignition sources. Transport with all closures in place. Return for reuse or dispose according to national or local regulations. Dispose of container according to national or local regulations.

## 14. TRANSPORT INFORMATION

**DOT:** UN 3077, Environmentally Hazardous Substance, Solid, N.O.S., (1,3-Bis(citraconimidomethyl)benzene), 9, III

**DOT Reportable Quantity (lbs):** None

**ICAO/IATA:** See DOT

**IMDG:** See DOT

**Marine Pollutant:** No

**TDG (Canada):** See DOT

**Remarks:** NOTE: NEW shipping description effective May 21, 2007.

## 15. REGULATORY INFORMATION

### Worldwide Inventory Status

<b>USA (TSCA):</b>	Listed
<b>Canada (DSL):</b>	Not Listed
<b>Canada (NDSL):</b>	Listed
<b>European Union (EINECS/ELINCS):</b>	Listed
<b>Japan (ENCS):</b>	Listed
<b>Korea (ECL):</b>	Listed
<b>Australia (AICS):</b>	Listed
<b>New Zealand (NZ):</b>	Listed
<b>Phillipines (PICCS):</b>	Not Listed
<b>China (CLECS):</b>	Listed.

### US Regulatory Rules

## 15. REGULATORY INFORMATION

SARA Section 302: None Found  
SARA 311/312 Hazard Categories: Immediate  
SARA 313 Chemical: Not Applicable / None  
RCRA Status: Not a RCRA waste.

### Other Regulations:

California Proposition 65: NONE  
New Jersey Right-to-Know List: Not Applicable.  
Pennsylvania Right to Know List: Not Applicable.  
Florida Right to Know: Not Applicable.  
Minnesota Right to Know: Not Applicable.  
Massachusetts Right to Know Law: Not Applicable.

FDA Status 21 CFR: Not Regulated For Use in food contact applications under 21 CFR.

### Canadian Regulations

WHMIS Hazard Class: D2B TOXIC MATERIALS / Materials Causing Other Toxic Effects  
NPRI: Not Listed. [Canada]

## 16. OTHER INFORMATION

### Hazard Rating Systems:

HMIS Classification: HEALTH 3, FLAMMABILITY 1, REACTIVITY 0  
NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 0

The following has been revised since the last issue of this MSDS: New MSDS format. Transport information or classification has been changed/corrected.

Additional Information: This material is not oil-treated.

**Important Note:** This information is furnished without warranty, expressed or implied, as to accuracy or completeness. The information is obtained from various sources including the manufacturer and other third party sources. The information may not be valid under all conditions nor if this material is used in combination with other materials or in any process. Final determination of suitability of any material is the sole responsibility of the user.

\*\*\*END OF MSDS\*\*\*

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