1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetron tetrone PMDA
             Jayhawk Pyromellitic Dianhydride

Use of the Substance / Preparation : Preliminary / intermediate product for organic syntheses

Company : Evonik Degussa Corporation
           379 Interpace Parkway
           Parsippany, NJ 07054
           USA

Telephone : 973-541-8000

Telefax : 973-541-8040

US: CHEMTREC EMERGENCY NUMBER : 800-424-9300

CANADA: CANUTEC EMERGENCY NUMBER : 613-996-6666

Product Regulatory Services : 973-541-8060

2. HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***

Form : powder, crystals    Color : white to slight yellowish    Odor : odourless

Causes skin and eye irritation.
May cause irritation of the respiratory tract.
May be harmful if swallowed.

POTENTIAL HEALTH EFFECTS

Eye contact
Irritating.

Skin Contact
irritating

Inhalation
May cause irritations of the respiratory tract.

Ingestion
May be harmful if swallowed.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Information on ingredients / Hazardous components**

<table>
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<tr>
<th>Material</th>
<th>CAS-No.</th>
<th>Percent (Wt./ Wt.)</th>
</tr>
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<tbody>
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<td>1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone</td>
<td>89-32-7</td>
<td>90 - 100 %</td>
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<tr>
<td>benzene-1,2,4,5-tetracarboxylic acid</td>
<td>89-05-4</td>
<td>1 - 5 %</td>
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**Other information**

This material is classified as hazardous under OSHA regulations.

### 4. FIRST AID MEASURES

**General advice**

Remove contaminated or saturated clothing.

**Inhalation**

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention.

**Skin contact**

Wash off with soap and water. Wash contaminated clothing before re-use.

**Eye contact**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes or until all material has been removed. Obtain medical attention.

**Ingestion**

If swallowed, rinse mouth with water, then drink large quantities of water to rinse throat and dilute stomach contents. Never give anything by mouth to an unconscious person. Seek medical advice.

### 5. FIRE-FIGHTING MEASURES

**Flash point**

380 °C , 716 °F

**Lower explosion limit**

not determined

**Upper explosion limit**

not determined

**Autoignition temperature**

630 °C

**Suitable extinguishing media**

Water spray, foam, CO2, dry powder.
Specific hazards during fire fighting
None known.

Special protective equipment for fire-fighters
As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

   Personal precautions
   Ensure adequate ventilation.
   Wear personal protective equipment; see section 8.

   Environmental precautions
   Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, rivers, groundwater or soil.

   Methods for cleaning up
   Scrape up.
   Avoid dust formation.
   Do not use a vacuum cleaning device
   Collect in suitable containers.
   Neutralize residues with soda ash or bicarbonate, wash away with water, and collect for disposal.

7. HANDLING AND STORAGE

   Handling
   Safe handling advice
   Ensure adequate ventilation.
   Avoid contact with skin, eyes and clothing.
   Avoid breathing vapors/dust/mist.
   Avoid dust formation.
   Wash thoroughly after handling.
   Follow all MSDS/label precautions even after container is emptied because it may retain product residues.

   Storage
   Requirements for storage areas and containers
   Keep containers tightly closed in a dry, cool and well-ventilated place.
   Avoid humidity and heat.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

   Engineering measures
   Local exhaust and mechanical ventilation recommended.
Personal protective equipment

Respiratory protection
This material does not have established exposure limits. If dust exposure is a problem, wear a NIOSH-approved dust respirator.
A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Hand protection
Use impermeable gloves to minimize skin contact (neoprene or rubber).

Eye protection
Wear safety glasses with side shields. In case dusts are formed, wear close fitting protective goggles.

Skin and body protection
A safety shower and eye wash fountain should be readily available.
To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: powder, crystals
Color: white to slight yellowish
Odor: odourless
physical state: solid

Safety data
Melting point/range: 284 - 286 °C
Boiling point/range: 380 - 400 °C
Flash point: 380 °C
Autoignition temperature: 630 °C
Lower explosion limit: not determined
Upper explosion limit: not determined
Vapor pressure: < 0.01 hPa (20 °C)
Relative density: 1.68 (20 °C)
Bulk density: 980 kg/m3 powder
Water solubility: 0.00105 g/l (26 °C)
10. STABILITY AND REACTIVITY

Conditions to avoid
None known

Materials to avoid
alkali metals, alkali hydroxide, oxidants, ammonia, amines, reducing agents, alcohols, reacts slowly with water

Hazardous decomposition products
carbon monoxide, carbon dioxide

Further information
Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Product Skin irritation
Irritating to skin.

Product Eye irritation
Irritating to eyes.

Product Sensitization
May cause sensitization by inhalation.
May cause lung sensitization, an allergic reaction, which becomes evident on re-exposure to this material.

not sensitizing to the skin

Product Human experience
Sensitive persons react with respiratory difficulties.
Inhalation may result in bronchospasms or respiratory difficulties.

12. ECOLOGICAL INFORMATION

General Ecological Information
No ecotoxicological studies are available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Advice on disposal
Waste must be disposed of in accordance with federal, provincial and local regulations. Empty containers must be handled with care due to product residue. DO NOT HEAT OR CUT THE EMPTY CONTAINER WITH AN ELECTRIC OR GAS TORCH.
14. TRANSPORT INFORMATION

Transport/further information
Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

US Federal Regulations

OSHA
If listed below, chemical specific standards apply to the product or components:

- None listed

Clean Air Act Section (112)
If listed below, components present at or above the de minimus level are hazardous air pollutants:

- None listed

CERCLA Reportable Quantities
If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

- None listed

SARA Title III Section 311/312 Hazard Categories
The product meets the criteria only for the listed hazard classes:

- Acute Health Hazard

SARA Title III Section 313 Reportable Substances
If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

Toxic Substances Control Act (TSCA)
If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed
State Regulations

California Proposition 65

A warning under the California Drinking Water Act is required only if listed below:

- None listed

International Chemical Inventory Status

Unless otherwise noted, this product is in compliance with the inventory listing of the countries shown below. For information on listing for countries not shown, contact Evonik Degussa Corporation Product Regulatory Services Department:

- Europe (EINECS/ELINCS) Listed/registered
- USA (TSCA) Listed/registered
- Canada (DSL) Not listed/Not registered
- Australia (AICS) Listed/registered
- Japan (MITI) Listed/registered
- Korea (TCCL) Listed/registered
- Philippines (PICCS) Not listed/Not registered
- China Listed/registered

16. OTHER INFORMATION

HMIS Ratings

Health : 2
Flammability : 1
Physical Hazard : 0

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
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