

### 1 Identification of substance:

- **Product name:** *Catalyst Charges (GasPak 100)*
- **Catalog number:** 260627
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Tel: (410) 771-0100 or (800) 638-8663
- **Information department:** Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems at (410)771-0100 or (800)638-8663, or ChemTrec at (800)424-9300.

### 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture consisting of the following components.

· **Dangerous components:**

	alumina	99.5%
7440-05-3	palladium	0.5%

### 3 Hazards identification

· **Hazard description:**



Xi Irritant

- **Information pertaining to particular dangers for man and environment**  
R 36/37 Irritating to eyes and respiratory system.
- **Classification system**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0-4)**



Health = 0  
Fire = 0  
Reactivity = 1

### 4 First aid measures

- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

(Contd. on page 2)

**Product name: Catalyst Charges (GasPak 100)**

(Contd. of page 1)

· **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
During heating or in case of fire toxic gases may be produced.
- **Protective equipment:** Wear self-contained respiratory protective device.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:** No special measures required.
- **Additional information:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

**alumina**

PEL	15*;5** mg/m <sup>3</sup> *Total dust **Respirable fraction
TLV	10 mg/m <sup>3</sup> (e)

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal Protective Equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.

(Contd. on page 3)

**Product name: Catalyst Charges (GasPak 100)**

(Contd. of page 2)

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

· **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing (lab coat).

### 9 Physical and chemical properties:

· **General Information**

<b>Form:</b>	Solid.
<b>Color:</b>	Gray
	Black
<b>Odor:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** 2072°C (3762°F)

**Boiling point/Boiling range:** 3147°C (5697°F)

· **Flash point:** Not applicable

· **Auto igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** 3.97 g/cm<sup>3</sup>

· **Solubility in / Miscibility with Water:** Insoluble

· **Solvent content:**  
**Organic solvents:** 0.0 %

· **Solids content:** 100.0 %

### 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

· **Materials to be avoided:** Incompatible material: strong oxidizers.

· **Dangerous reactions** No dangerous reactions known

· **Dangerous products of decomposition:** No dangerous decomposition products known.

(Contd. on page 4)

**Product name: Catalyst Charges (GasPak 100)**

(Contd. of page 3)

**· Additional information:**

*The product will undergo an exothermic hydration reaction with water which may produce significant amounts of heat depending on the amount of water and alumina.*

### 11 Toxicological information

**· Acute toxicity:**

**· Primary irritant effect:**

**· on the skin:** No irritating effect.

**· on the eye:** Irritating effect.

**· Sensitization:** No sensitizing effects known.

**· Additional toxicological information:**

*Irritant*

*The product shows the following dangers according to internally approved calculation methods for preparations:*

### 12 Ecological information:

**· Ecotoxicological effects:**

**· Other information:**

*The ecological effects have not been thoroughly investigated, but currently none have been identified.*

**· General notes:** Not known to be hazardous to water.

### 13 Disposal considerations

**· Product:**

**· Recommendation**

*Smaller quantities can be disposed of with solid waste.*

*This product is not considered a RCRA hazardous waste.*

*Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.*

**· Uncleaned packagings:**

**· Recommendation:** Disposal must be made according to state and federal regulations.

**· Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

**· DOT regulations:**

**· Hazard class:** -

**· Land transport ADR/RID (cross-border)**

**· ADR/RID class:** -

**· Maritime transport IMDG:**

**· IMDG Class:** -

**· Marine pollutant:** No

(Contd. on page 5)



Printing date 01/11/2006

Reviewed on 11/19/2003

**Product name: Catalyst Charges (GasPak 100)**

(Contd. of page 4)

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

**15 Regulations**

- **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

- **SARA Section 313 (specific toxic chemical listings)**

alumina

- **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

- **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenicity categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

alumina

A4

- **Product related hazard information:**

The product has been classified and marked in accordance with regulations on hazardous materials.

- **Hazard symbols:**

Xi Irritant

- **Hazard-determining components of labeling:**

alumina

- **Risk phrases:**

36/37 Irritating to eyes and respiratory system.

- **Safety phrases:**

7 Keep container tightly closed.

22 Do not breathe dust.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36 Wear suitable protective clothing.

(Contd. on page 6)



**Material Safety Data Sheet**  
*acc. to ISO/DIS 11014*

Printing date 01/11/2006

Reviewed on 11/19/2003

**Product name: Catalyst Charges (GasPak 100)**

(Contd. of page 5)

· *National regulations*

· *Technical instructions (air):*

Class	Share in %
III	0.5

**16 Other information:**

*To the best of our knowledge, the information contained herein is accurate. However, neither Becton, Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

- **Department issuing MSDS:** Safety and Environment Department
- **Contact:** Technical Service Representative