

### 1 Identification of substance:

- **Product name:** CO2 Generators
- **Catalog number:** 261205
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

### 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

7647-01-0	hydrochloric acid	15.3%
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### 3 Hazards identification

· **Hazard description:**



C Corrosive

- **Information pertaining to particular dangers for man and environment**  
R 34 Causes burns.  
R 37 Irritating to respiratory system.
- **NFPA ratings (scale 0-4)**



Health = 3  
Fire = 0  
Reactivity = 0

· **HMIS ratings (scale 0-4)**



Health = 3  
Fire = 0  
Reactivity = 0

### 4 First aid measures

- **General information** Immediately remove contaminated clothing.

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- **After inhalation**  
Supply fresh air or oxygen; and immediately call for a doctor.  
In case of unconsciousness place patient on side position for transportation.
- **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** Call a doctor immediately.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO2, 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:** No special measures required.

### 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:** weak alkaline solution
- **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:** No special measures required.
  - **Information about protection against explosions and fires:** No special measures required.
- **Storage**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:**  
Do not store together with alkaline material.  
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.

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

**7647-01-0 hydrochloric acid**

PEL	Short-term value: C 7 mg/m <sup>3</sup> , C 5 ppm
REL	Short-term value: C 7 mg/m <sup>3</sup> , C 5 ppm
TLV	Short-term value: C 2.98 mg/m <sup>3</sup> , C 2 ppm

**· Additional information:** The lists that were valid during the creation were used as basis.

**· Personal Protective Equipment**

**· General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

**· 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>	Liquid
<b>Color:</b>	According to product specification
<b>Odor:</b>	Characteristic

**· Change in condition**

**Melting point/Melting range:** Not determined

**Boiling point/Boiling range:** Not determined

**· Flash point:** Not applicable

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

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

**· Density:** Not determined

**· Solubility in / Miscibility with**

**Water:** Soluble

**· pH-value:** 0.193

**10 Stability and reactivity**

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

No decomposition if used according to specifications.

**· Dangerous reactions** Heating occurs when water is added

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**· Dangerous products of decomposition:** No dangerous decomposition products known.**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
Corrosive (causes skin burns)  
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:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**13 Disposal considerations**

- **Product:**
- **Recommendation**  
Must not be disposed of with solid waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.  
RCRA hazardous waste - RCRA # D002 (corrosive).
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.

**14 Transport information****· DOT regulations:**

- **Hazard class:** 8
- **Identification number:** UN3264
- **Packing group:** II

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USA

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· **Proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID)

· **Label** 8

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



· **ADR/RID class:** 8 (C1) Corrosive substances

· **Danger code (Kemler):** 80

· **UN-Number:** 3264

· **Packaging group:** II

· **Description of goods:** 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID)

· **Remarks:** Limited quantity

· **Maritime transport IMDG:**



· **IMDG Class:** 8

· **UN Number:** 3264

· **Label** 8

· **Packaging group:** II

· **EMS Number:** F-A,S-B

· **Marine pollutant:** No

· **Proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID)

· **Remarks:** Limited quantity

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 8

· **UN/ID Number:** 3264

· **Label** 8

· **Packaging group:** II

· **Proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID)

· **Remarks:** This product can be transported using the exception: Dangerous Goods in Excepted Quantities. The Hazard class, Identification number, and Packing group listed above is for informational purposes only.



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**15 Regulations**

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

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

7647-01-0 | hydrochloric acid

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

7647-01-0 | hydrochloric acid

· **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)**

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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Product related hazard information:**

Observe the general safety regulations when handling chemicals

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

· **Hazard symbols:**

C Corrosive

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

hydrochloric acid

· **Risk phrases:**

34 Causes burns.

37 Irritating to respiratory system.

· **Safety phrases:**

1 Keep locked up.

2 Keep out of the reach of children.

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

45 In case of accident or if you feel unwell, seek medical advice immediately.

60 This material and its container must be disposed of as hazardous waste.

USA

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

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**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 can not guarantee that these are the only hazards that exist.*

- **Department issuing MSDS:**  
Safety and Environment Department  
MSDS created by Michael J. Spinazzola
- **Contact:** Technical Service Representative

USA