



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** **BD Vacutainer® K2EDTA Tubes**

**Other means of identification**

**Product code** 362089, 364661, 364664, 367838, 368274, 368499, 365300, 365312, 365329, 365330, 365331, 365900, 366164, 366643, 367386, 367525, 367839, 367864, 367873, 367918, 367924, 367941, 367950, 367978, 368267, 368834, 368841, 368843, 368856, 368860

**Recommended use** Blood collection (In-Vitro Diagnostic) device for collecting blood samples for analysis

**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Supplier

**Company name** Becton Dickinson UK Ltd.

**Address** The Danby Building, Edmund Halley Road  
Oxford Science Park, OX4 4DQ, Oxford, United Kingdom

**Telephone** UK: +44 (0) 1752 701281  
USA: 800-631-0174

**e-mail** pas\_tech\_services@bd.com

**1.4. Emergency telephone number** Chemtrec EU 703-527-3887 US 1-800-424-9300

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Acute toxicity, inhalation Category 4

**OSHA defined hazards** Not classified.

#### Label elements



**Signal word** Warning

**Hazard statement** Harmful if inhaled.

**Precautionary statement**

**Prevention** Avoid breathing vapors. Use only outdoors or in a well-ventilated area.

**Response** If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** Low hazard for recommended handling by trained personnel.

## 3. Composition/information on ingredients

#### Substances

Chemical name	Common name and synonyms	CAS number	%
Dipotassium dihydrogen ethylenediaminetetraacetate		25102-12-9	100

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

<b>Inhalation</b>	No specific precautions due to the small quantities handled. However: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
<b>Skin contact</b>	No specific precautions due to the small quantities handled. However: Wash skin thoroughly with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	No specific precautions due to the small quantities handled. However, rinse with water. Do not rub eye. Make sure to remove any contact lenses from the eyes before rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	No specific precautions due to the small quantities handled. However: Rinse mouth thoroughly if dust is ingested. Get medical attention if any discomfort occurs.
<b>Most important symptoms/effects, acute and delayed</b>	Under normal conditions of intended use, this material does not pose a risk to health.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Dry chemical. Foam.
<b>Unsuitable extinguishing media</b>	Carbon dioxide (CO <sub>2</sub> ).
<b>Specific hazards arising from the chemical</b>	Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Containers close to fire should be removed or cooled with water.
<b>General fire hazards</b>	The product is not flammable.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Provide adequate ventilation. Avoid dust formation. Avoid inhalation of dust and contact with skin and eyes. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear suitable protective clothing. See Section 8 of the SDS for Personal Protective Equipment.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Minimize dust generation and accumulation. Collect dust using a vacuum cleaner equipped with HEPA filter. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground unless authorized by permit.

## 7. Handling and storage

<b>Precautions for safe handling</b>	No specific precautions due to the small quantities handled. However: Explosion-proof general and local exhaust ventilation. Minimize dust generation and accumulation. Provide adequate ventilation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Keep the workplace clean. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep away from heat, sparks and open flame. Store in original tightly closed container. Store in a cool, dry place.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	No specific recommendation made, but protection against nuisance dust must be used when the general level exceeds 10 mg/m <sup>3</sup> .

## Individual protection measures, such as personal protective equipment

<b>Eye/face protection</b>	It is a good industrial hygiene practice to minimize eye contact. Risk of contact: Wear dust goggles.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
<b>Other</b>	No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
<b>Respiratory protection</b>	No protection is ordinarily required under normal conditions of use and with adequate ventilation. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Wash hands after handling and before eating. Keep away from food and drink.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Crystalline.
<b>Color</b>	White.
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not applicable.
<b>pH</b>	Not applicable.
<b>Melting point/freezing point</b>	485.6 °F (252 °C)
<b>Initial boiling point and boiling range</b>	Decomposes.
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Fine particles may form explosive mixtures with air.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not applicable.
<b>Flammability limit - upper (%)</b>	Not applicable.
<b>Vapor pressure</b>	Not applicable.
<b>Vapor density</b>	Not applicable.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	108 g/l (20°C, pH: 5.3)
<b>Partition coefficient (n-octanol/water)</b>	Log Pow: -4.3 (25°C, pH: 4.5)
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Molecular formula</b>	C10H16N2O8.2H2O.2K
<b>Oxidizing properties</b>	Not oxidizing.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.

<b>Conditions to avoid</b>	Avoid dust formation.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	Thermal decomposition: > 150°C.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Harmful if inhaled. Dust may irritate respiratory system.
<b>Skin contact</b>	Dust may irritate skin.
<b>Eye contact</b>	Dust may irritate the eyes.
<b>Ingestion</b>	May cause discomfort if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics** Under normal conditions of intended use, this material does not pose a risk to health.

### Information on toxicological effects

**Acute toxicity** Harmful if inhaled.

Components	Species	Test Results
Dipotassium dihydrogen ethylenediaminetetraacetate (CAS 25102-12-9)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	3735 mg/kg, (Male) 3690 mg/kg, (Female)

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

### Respiratory or skin sensitization

**Respiratory sensitization** Due to lack of data the classification is not possible.

**Skin sensitization** Due to lack of data the classification is not possible.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Due to lack of data the classification is not possible.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

#### NTP Report on Carcinogens

Not listed.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

**Reproductive toxicity** Due to lack of data the classification is not possible.

**Specific target organ toxicity - single exposure** Due to lack of data the classification is not possible.

**Specific target organ toxicity - repeated exposure** Due to lack of data the classification is not possible.

**Aspiration hazard** Based on available data, the classification criteria are not met.

**Chronic effects** No other specific chronic health impact noted.

**Further information** No additional adverse health effects noted.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Dipotassium dihydrogen ethylenediaminetetraacetate (CAS 25102-12-9)		
<b>Aquatic</b>		
Crustacea	EC0 Daphnia magna	310 mg/l, 24 hours

Components	Species	Test Results	
	EC100	Daphnia magna	1250 mg/l, 24 hours
	EC50	Daphnia magna	610 - 625 mg/l, 24 hours
<b>Persistence and degradability</b>	Expected to be readily biodegradable.		
<b>Bioaccumulative potential</b>	Based on available data, the classification criteria are not met.		
<b>Mobility in soil</b>	No data available.		
<b>Mobility in general</b>	The product is slightly soluble in water.		
<b>Other adverse effects</b>	The product is not volatile but may be spread by dust-raising handling.		

### 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

#### DOT

Not regulated as dangerous goods.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

### 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
 Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**  
 Not regulated.

## Other federal regulations

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

### Safe Drinking Water Act (SDWA)

Not regulated.

## US state regulations

### US. Massachusetts RTK - Substance List

Not regulated.

### US. New Jersey Worker and Community Right-to-Know Act

Not listed.

### US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

### US. Rhode Island RTK

Not regulated.

### US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 15-September-2015

**Revision date** -

**Version #** 01

**HMIS® ratings** Health: 2  
Flammability: 1  
Physical hazard: 0

### NFPA ratings



### List of abbreviations

LD50: Lethal Dose, 50%.  
EC0: Effective Concentration 0%.  
EC50: Effective Concentration, 50%.  
EC100: Effective Concentration 100%.

**References**

REACH dossier for substance.  
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices  
US. IARC Monographs on Occupational Exposures to Chemical Agents  
IARC Monographs. Overall Evaluation of Carcinogenicity

**Disclaimer**

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**This SDS contains revisions in the following section(s):**

1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 15, 16.