1 Identification

Product identifier
Trade name: E-Z-Disk
Article number: cat. 778/650324

Application of the substance / the mixture:
Radiopaque contrast media for diagnostic imaging of the gastrointestinal tract
Smooth off-white free-flowing liquid with apple aroma
White, flat sided disks, 11.5-13.5 mm diameter
- Disintegration time: 10-30 minutes after ingestion
Route of Administration: Oral

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
E-Z-EM Canada Inc.
11065 boulevard L-H. Lafontaine
Montréal, QC, Canada
H1J 2Z4
tel: (514) 353-5820

Information department:
B-Lands Consulting
WTC, 5 Place Robert Schuman, BP 1516
38025 Grenoble, FRANCE
Tel: +33 476 295 869
Fax: +33 476 295 870
Email: clients@reachteam.eu
www.reachteam.eu

Emergency telephone number:
EMERGENCY CONTACT:
Health: 1-800-257-5181
U.S. Transport - Chemtrec: 1-800-424-9300
International Transport - Chemtrec: 1-703-527-3887

2 Hazard(s) identification

Classification of the substance or mixture
The product is not classified according to the Globally Harmonized System (GHS).

Label elements
GHS label elements Not applicable.

Hazard pictograms Not applicable.

Signal word Not applicable.

Hazard statements Not applicable.

Additional Information:
WHMIS-symbols:
Not Hazardous.
Not controlled under WHIMS (Canada).

Classification system:
NFPA ratings (scale 0 - 4)

Health = 0
Fire = 0
Reactivity = 0
Trade name: E-Z-Disk

HMIS-ratings (scale 0 - 4)

- **Health** = 0
- **Fire** = 0
- **Reactivity** = 0

### 3 Composition/information on ingredients

**Chemical characterization:** Mixtures

**Description:** Mixture: consisting of the following components.

#### Hazardous Components:

<table>
<thead>
<tr>
<th>Component Code</th>
<th>Component Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>7727-43-7</td>
<td>Barium sulphate</td>
<td>70.0% w/w</td>
</tr>
<tr>
<td>57-50-1</td>
<td>Saccharose</td>
<td>10.0% w/w</td>
</tr>
<tr>
<td>9004-34-6</td>
<td>Microcrystalline Cellulose</td>
<td>8.0% w/w</td>
</tr>
<tr>
<td>9005-25-8</td>
<td>Corn Starch</td>
<td>7.0% w/w</td>
</tr>
</tbody>
</table>

#### Information on components:

- 7727-43-7 Barium sulphate 70.0% w/w

### 4 First-aid measures

**Description of first aid measures**

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

**After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** Do not induce vomiting; immediately call for medical help.

**Most important symptoms and effects, both acute and delayed**
No further relevant information available.

**Danger**
Inhalation: If dusts are formed, inhalation may cause adverse lung effects.
 Eyes: Inert particles may cause mechanical irritation of the eyes, including scratches. Symptoms may include stinging and tearing.
 Ingestion: Ingestion of large amounts may cause stomach irritation.

**Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents:**
Use extinguishing measures appropriate to local circumstances and the environment.
 CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**
Not flammable under normal conditions of use. Fine dust dispersed in air may ignite.
 Explosion data: Sensitivity to mechanical impact / static discharge: Not expected to be sensitive to mechanical impact or static discharge.
Advice for firefighters

Protective equipment:
Firefighters should wear adequate personal protective equipment with protection of respiratory tract (selfcontained breathing apparatus) (SCBA).
In addition, firefighters should wear flame and chemicals resistant clothing, boots and gloves.

Additional information
Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run off from fire fighting to enter drains or water courses. Dike for water control.
Evacuate personnel to an upwind direction. Remove unneeded material

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Remove persons from danger area.

Environmental precautions:
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:
Dispose of the collected material according to regulations.
Sweep material onto paper and place into a fiber drum for reclamation or disposal.
The spill area should be ventilated and decontaminated after material has been picked up.
Eliminate all ignition sources.
Pick up mechanically.
Clean the affected area carefully.
Suitable cleaner is: water.
Send for recovery or disposal in suitable receptacles.
Ensure adequate ventilation.

Reference to other sections
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

Precautions for safe handling
Do not inhale dust / smoke / mist.
Provide suction extractors if dust is formed.
Ensure good ventilation/exhaustion at the workplace.
Avoid contact with the eyes and skin.

Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.
Avoid accumulation of static charges, by means of adequate grounded electrical connection

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:
Store in a cool, dry place in tightly closed receptacles.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:
Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel.
Protect against physical damage

Specific end use(s) No further relevant information available.
### 8 Exposure controls/personal protection

#### Control parameters

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7727-43-7 Barium sulphate</strong></td>
<td></td>
</tr>
<tr>
<td>CAD AB OEL (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>CAD BC OEL (Canada)</td>
<td>Long-term value: 3* ; 10** mg/m³ **Respirable Fraction; **: Total Dust</td>
</tr>
<tr>
<td>CAD MB OEL (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>CAD ON OEL (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>OEL (QUE) (Canada)</td>
<td>Long-term value: 5* ; 10** mg/m³ **Respirable Fraction; **: Total Dust</td>
</tr>
<tr>
<td>ACGIH (USA)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>ACGIH 2014 TLV (USA)</td>
<td>Long-term value: 5 mg/m³</td>
</tr>
<tr>
<td>CAL/OSHA PEL (USA)</td>
<td>Long-term value: 5* ; 10** mg/m³ **Respirable Fraction; **: Total Dust</td>
</tr>
<tr>
<td>NIOSH/GUIDE - REL (USA)</td>
<td>Long-term value: 5* ; 10** mg/m³ **Respirable Fraction; **: Total Dust</td>
</tr>
<tr>
<td>OSHA PEL1 (USA)</td>
<td>Long-term value: 5* ; 15** mg/m³ **Respirable Fraction; **: Total Dust</td>
</tr>
<tr>
<td><strong>57-50-1 Saccharose</strong></td>
<td></td>
</tr>
<tr>
<td>CAD AB OEL (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>CAD BC OEL (Canada)</td>
<td>Long-term value: 10* ; 3** mg/m³ **Total Dust ; **: Respirable Fraction</td>
</tr>
<tr>
<td>CAD MB OEL (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>Long-term value: 10* 3** mg/m³ **total dust;**respirable fraction</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>OEL (QUE) (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>CAD ON OEL (Canada ENG BRACCO)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>ACGIH 2014 TLV (USA)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>CAL/OSHA PEL(1)(2) (USA)</td>
<td>Long-term value: 10* ; 5** mg/m³ **Total Dust ; **: Respirable Fraction</td>
</tr>
<tr>
<td>NIOSH - REL (USA)</td>
<td>Long-term value: 10* ; 5** mg/m³ **Total Dust ; **: Respirable Fraction</td>
</tr>
<tr>
<td><strong>9004-34-6 Microcrystalline Cellulose</strong></td>
<td></td>
</tr>
<tr>
<td>EL (Canada)</td>
<td>Long-term value: 10* 3** mg/m³ **total dust, **respirable fraction</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>PEL (USA)</td>
<td>Long-term value: 15* 5** mg/m³ **total dust **respirable fraction</td>
</tr>
<tr>
<td>REL (USA)</td>
<td>Long-term value: 10* 5** mg/m³ **total dust **respirable fraction</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
</tbody>
</table>
Trade name: E-Z-Disk

<table>
<thead>
<tr>
<th>9005-25-8 Corn Starch</th>
<th>Long-term value: 10* 3** mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL (Canada)</td>
<td>*total dust; **respirable fraction</td>
</tr>
<tr>
<td>EV (Canada)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
<tr>
<td>PEL (USA)</td>
<td>Long-term value: 15* 5** mg/m³</td>
</tr>
<tr>
<td>REL (USA)</td>
<td>*total dust **respirable fraction</td>
</tr>
<tr>
<td>TLV (USA)</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
</tbody>
</table>

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

Exposure controls

Personal protective equipment

General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not eat, drink, smoke or sniff while working.

Breathing equipment:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air. Filter P2

Protection of hands:

Protective gloves

The glove material must be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Goggles recommended during refilling.

Body protection: Protective work clothing

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:
Form: Tablets
Color: White
Safety Data Sheet
acc. to OSHA HCS

Printing date 10/31/2019
Reviewed on 10/31/2019

Trade name: E-Z-Disk

Odor threshold: Not determined.

pH-value: Not applicable.

Melting point/Melting range: Not determined.
Boiling point/Boiling range: Not determined.
Flash point: Not applicable.
Flammability (solid, gaseous): Not determined.
Ignition temperature: 340 °C
Decomposition temperature: Not determined.
Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
Lower: Not determined.
Upper: Not determined.
Oxidizing properties: Not determined.
Vapor pressure: Not determined.
Density: Not determined.
Relative density: Not determined.
Vapor density: Not applicable.
Evaporation rate: Not applicable.
Solubility in / Miscibility with Water: Insoluble.
Partition coefficient (n-octanol/water): Not determined.

Viscosity:
Dynamic: Not applicable.
Kinematic: Not applicable.
Solids content: 80.0 %

Other information: No further relevant information available.

10 Stability and reactivity

Reactivity: No further relevant information available.

Chemical stability

Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: Avoid all sources of ignition: heat, sparks, open flames.

Incompatible materials: Reactive metals.

Hazardous decomposition products:
Sulfur oxides (SOx)
Carbon monoxide and carbon dioxide
Barium Oxide (BaO)
Other unidentified organic compounds
11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Acute Toxicity</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>7727-43-7 Barium sulphate</td>
<td>Oral LD50 &gt; 20000 mg/kg (Rat)</td>
<td>External SDS</td>
</tr>
<tr>
<td>9004-34-6 Microcrystalline Cellulose</td>
<td>Dermal LD50 &gt; 2000 mg/kg (Rabbit)</td>
<td>RTEC</td>
</tr>
</tbody>
</table>

Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations.
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

Carcinogenic categories

<table>
<thead>
<tr>
<th>Agency</th>
<th>Category</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC (International Agency for Research on Cancer)</td>
<td>3</td>
<td>Povidone</td>
</tr>
<tr>
<td>NTP (National Toxicology Program)</td>
<td></td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

12 Ecological information

Toxicity

Aquatic toxicity:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Aquatic Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7727-43-7 Barium sulphate</td>
<td>EC50/48h 32 mg/L (Daphnia Magna)</td>
</tr>
</tbody>
</table>

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information
Use according to the good working practice. Avoid transfer into the environment.

General notes: Generally not hazardous for water

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods
The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the
responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Recommendation:** Reutilise if possible or contact a waste processors for recycling or safe disposal

**Waste disposal key:**
If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

**Uncleaned packagings:**
**Recommendation:**
Disposal must be made according to official regulations.
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

### 14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT</th>
<th>TDG, ADN, IMDG, IATA</th>
<th>Void</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>DOT, TDG, ADN, IMDG, IATA</td>
<td>Void</td>
<td></td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>DOT, TDG, ADN, IMDG, IATA Class</td>
<td>Void</td>
<td></td>
</tr>
</tbody>
</table>

**Packing group**
DOT, TDG, IMDG, IATA

**Environmental hazards:**
Marine pollutant:
No

**Special precautions for user**
Not applicable.

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
Not applicable.

### 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Sara**

<table>
<thead>
<tr>
<th>Section 355 (extremely hazardous substances):</th>
<th>None of the ingredients is listed.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section 313 (Specific toxic chemical listings):</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>Canadian Ingredient Disclosure list (limit 0.1%)</strong></td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>
Trade name: E-Z-Disk

Canadian Ingredient Disclosure list (limit 1%)
None of the ingredients is listed.

GHS label elements Not applicable.
Hazard pictograms Not applicable.
Signal word Not applicable.
Hazard statements Not applicable.

16 Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Date of preparation / last revision 05/12/2017 / 2

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent