acc. to OSHA HCS

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Version 3

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1 Identification

Product identifier

Trade name: Varibar Honey

Article number: D122

Application of the substance / the mixture:

Radiopaque contrast media for diagnostic imaging of the gastrointestinal tract Smooth off-white viscous liquid with an apple aroma. 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

HMIS-ratings (scale 0 - 4)

HEALTHImage: 0Image: 0FIREImage: 0Fire = 0REACTIVITYImage: 0Reactivity = 0



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3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture: consisting of the following components.

Hazardous Components:		
7727-43-7	Barium sulphate	29.0% w/w
56-81-5	glycerol	10.875% w/w
	Modified Food Starch	3.12% w/w
Information on components:		
7727-43-7	Barium sulphate	29.0% 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.

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 No further relevant information available.

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 personell to an upwind direction. Remove uneeded 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.





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Methods and material for containment and cleaning up:

Dispose of the collected material according to regulations.

Ventilate area of release.

Stop spill or leak at source if safely possible.

Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required

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

Ensure good ventilation/exhaustion at the workplace. Avoid contact with the eyes and skin.

Information about protection against explosions and fires: No special measures required.

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:		
7727-43-7 Barium sulphate		
CAD AB OEL (Canada)	Long-term value: 10 mg/m ³	
CAD BC OEL (Canada)	Long-term value: 3* ; 10** mg/m ³ *: Respirable Fraction; **: Total Dust	
CAD MB OEL (Canada)	Long-term value: 10 mg/m ³	
CAD ON OEL (Canada)	Long-term value: 10 mg/m ³	
OEL (QUE) (Canada)	Long-term value: 5* ; 10** mg/m ³ *: Respirable Fraction; **: Total Dust	
ACGIH (USA)	Long-term value: 10 mg/m ³	
ACGIH 2014 TLV (USA)	Long-term value: 5 mg/m ³ Total Dust, no asbestos and <1% crystalline silica	
CAL/OSHA PEL (USA)	Long-term value: 5* ; 10** mg/m ³ *:Respirable Fraction; **:Total Dust	
NIOSH/GUIDE - REL (USA)	Long-term value: 5* ; 10** mg/m ³ *: Respirable Fraction; **: Total Dust	
OSHA PEL ₁ (USA)	Long-term value: 5* ; 15** mg/m ³ *: Respirable Fraction; **:Total Dust	



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56-81-5 glycerol	
CAD AB OEL (Canada)	Long-term value: 10 mg/m ³ Mist
CAD BC OEL (Canada)	Long-term value: 10*, 3** mg/m³ *: Mist; **: Respirable Mist
CAD ON OEL (Canada ENG BRACCO)	Long-term value: 10 mg/m³ Mist
OEL (QUE) (Canada ENG BRACCO)	Long-term value: 10 mg/m ³ Mist
ACGIH - TLV (USA)	TLV withdrawn-insufficient data human occup. exp.
CAL/OSHA PEL (1 ; 2) (USA)	Long-term value: 10* ; 5** mg/m³ *: Total Dust (Mist) ; **: Respirable Fraction
CAL/OSHA PEL (1) (USA)	Long-term value: 10* ; 5** (2) mg/m³ *: Total Dust (Mist) ; **: Respirable Fraction
PEL (USA)	Long-term value: 15* ; 5** mg/m³ *: Total Dust ; **: Rrespirable Fraction
Modified Food Starch	
OSHA PEL (USA)	Long-term value: 5* ; 15** mg/m ³ *: Respirable Dust : **: Total Dust

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.

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.



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Trade name: Varibar Honey

Body protection: Protective work clothing

9 Physical and chemical properties

Information on basic physical an	d chemical properties
General Information	
Appearance: Form: Color:	Suspension Whitish
Odor: Odor threshold:	Apple Like Not determined.
pH-value:	Not determined.
Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	Not determined.
Flash point:	Not determined.
Flammability (solid, gaseous):	Not determined.
Ignition temperature:	400 °C
Decomposition temperature:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Flammability Limits: Lower: Upper:	Not Determined. Not Determined.
Explosion limits: Lower: Upper:	0.9 Vol % 0.0 Vol %
Oxidizing properties	Not determined.
Vapor pressure at 20 ℃:	0.1 hPa
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Not determined.
Partition coefficient (n-octanol/water	r): Not determined.
Viscosity: Dynamic: Kinematic: Solids content:	2500-3500 cPs 2500-3500 cPs 2500-3500 cPs 80.0 %
Other information	No further relevant information available.
) Stability and reactivity	

Reactivity No further relevant information available.

Chemical stability

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



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Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

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 the	at are relevant for classification:
7727-43-7	Barium s	sulphate
Oral	LD50	> 20000 mg/kg (Rat) (External SDS)
56-81-5 g	ycerol	
Oral	LD50	12600 mg/kg (Rat)
Dermal	LD50	> 18700 mg/kg (Rabbit)
87-99-0 xy		
Oral	LD50	17300 mg/kg (Rat)
590-00-1 I	Potassiur	
Oral	LD50	>2000 mg/kg (unknown)
Dermal	LD50	>2000 mg/kg (unknown)
		carboxymethyl cellulose
Oral	LD50	27000 mg/kg (Rat) (RTEC)
Dermal	LD50	> 2000 mg/kg (Rabbit) (External SDS)
Inhalative	LC50/4h	> 5800 mg/L (Rat) (RTEC)
		, Anhydrous
Oral	LD50	5040 mg/kg (Mouse)
		3000 mg/kg (Rat) (RTEC)
		m citrate dihydrate
Oral	LD50	> 8000 mg/kg (Rat) (IUCLID - Anhydrous substance)
	LD50 iv	170 mg/kg (Mouse)
		449 mg/kg (Rabbit)
	LD50 ip	1364 mg/Kg (Mouse)
		1548 mg/Kg (Rat)
		in Sodium dihydrate
Oral	LD50	> 14200 mg/kg (Rat) (anydrous substance - RTEC)
532-32-1		
Oral	LD50	3140 mg/kg (Rat) (Exernal SDS)
11138-66-		
Oral	LD50	> 5000 mg/kg (Rat)

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

Sensitization: No sensitizing effects known.



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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

IARC (International Agency for Research on Cancer)		
6155-57-3	Saccharin Sodium dihydrate	Yes: Carc. 3
NTP (National Toxicology Program)		
6155-57-3	Saccharin Sodium dihydrate	YES
63231-67-4	Silica gel	К

12 Ecological information

Aquatic to	oxicity:
-	Barium sulphate
EC50/48h	32 mg/L (Daphnia Magna)
56-81-5 gl	ycerol
IC5/7d	> 10000 mg/L (Scenedesmus Quadricauda) (Literature)
EC5/72h	3200 mg/L (Echinodontium Sulcatum) (Literature)
EC50/24h	> 10000 mg/L (Daphnia Magna) (IUCLID)
LC50/24h	> 5000 mg/L (Carassius Auratus) (Literature)
77-92-9 Ci	tric Acid, Anhydrous
LC50/96h	440 - 760 mg/L (Leuciscus Idus) (IUCLID)
LC50	440-706 mg/L (Fish)
IC5/7d	640 mg/L (Scenedesmus Quadricauda) (Literature)(Max. Permissible Toxic Concentration)
EC5/72h	485 mg/L (Echinodontium Sulcatum) (Literature)
IC5/8d	80 mg/L (Microcystis Aeruginosa) (Literature)(Max. Permissible Toxic Concentration)
EC5/16h	> 10000 mg/L (Pseudomonas Putida) (Literature)(Max. Permissible Toxic Concentration)
EC50/72h	ca. 120 mg/L (Daphnia Magna) (IUCLID)
6132-04-3	Trisodium citrate dihydrate
LC50/96h	> 18000 - 32000 mg/L (Poecilia Reticulata) (IUCLID - Anhydrous substance)
IC50/96h	> 18000 - 32000 mg/L (Chlorella Vulgaris) (IUCLID - Anhydrous substance)
EC50/8h	> 1800 - 3200 mg/L (Pseudomonas Fluorescens) (IUCLID - Anhydrous substance)
	5600 - 10000 mg/L (Daphnia Magna) (IUCLID - Anhydrous substance)
532-32-1 \$	Sodium Benzoate
LC50	460 mg/L (Leuciscus Idus) (ECOTOX Database)
EC0	1000 mg/L (Bacteria) (Exernal SDS)
	> 10 mg/L (Algae) (Exernal SDS)
EC50/48h	> 100 mg/L (Daphnia) (Exernal SDS)
	2 Xanthan gum
	490 mg/L (Rainbow Trout)
	980 mg/L (Daphnia Magna)
LC50/96h	> 50000 ppm (Mysid Shrimp) (Suspended Particulate (2 lb./bbl of Xanthan Gum))

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.



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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

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UN-Number	
DOT	Void 1. Domestic DOT shipping classification: Radioactive material- see US regulations regarding shipment of radioactive materials. 2. International DOT shipping classification: Radioactive material- see US and other nations' regulations on shipment of radioactive materials.
TDG, ADN, IMDG, IATA	Void
UN proper shipping name DOT, TDG, ADN, IMDG, IATA	Void
Transport hazard class(es)	
DOT, TDG, ADN, IMDG, IATA Class	Void
Packing group DOT, TDG, IMDG, IATA	Void
Environmental hazards: Marine pollutant:	Νο
Special precautions for user	Not applicable.



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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

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

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 05/15/2017 / 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