

SAFETY DATA SHEET
GLUCIDEX® 21**SECTION 1 : Identification****1.1 Product identifier:****Product name:** GLUCIDEX® 21

Chemical name: Syrups, corn, dehydrated
CAS-No.: 68131-37-3
EC No.: 268-616-4

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses:	Uses advised against:
Formulation and Packaging.; Chemical Additive; Human nutrition; Fabrics, textiles and apparel.; Paper treatment.; PlasticsPharmaceuticals.	No data available.

1.3 Details of the supplier of the safety data sheet:**Supplier:**

ROQUETTE FRERES
1 Rue de la Haute Loge
62136 LESTREM - France

Telephone: +33 3 21 63 36 00

Fax: +33 3 21 63 38 50

E-mail: sds@roquette.com

1.4 Emergency telephone number:

World directory of poisons centres : http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture:**

The product has not been classified as dangerous according to GHS.

2.2 Label elements: Not applicable

2.3 Other hazards: May form explosible dust-air mixture if dispersed in the air

SECTION 3: Composition/information on ingredients**3.1 Substance:**

Chemical name	Concentration	CAS-No.
Syrups, corn, dehydrated	>=96%	68131-37-3

SECTION 4: First aid measures**4.1 Description of first aid measures:**

Inhalation: Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Eye contact: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Skin contact: Wash with soap and water.

Ingestion: Product not hazardous when ingested.

4.2 Most important symptoms and effects, both acute and delayed: Dust may irritate the eyes and the respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed:

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Water spray.

Unsuitable extinguishing media: Dry chemicals or foams. Straight Streams of Water

5.2 Special hazards arising from the substance or mixture: Fire or excessive heat may produce hazardous decomposition products. See Section 10. Combustible dusts : may form an explosible mixture in the air.

5.3 Advice for firefighters:

Special Fire Fighting Procedures: Prevent dust cloud. Do not use water jet as an extinguisher, as this will spread the fire.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment.

6.2 Environmental precautions: Not regarded as dangerous for the environment.

6.3 Methods and material for containment and cleaning up: Remove material, as much as possible, using mechanical equipment. Prevent dust cloud. Collect and dispose of spillage as indicated in section 13 of the SDS.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: See Section 8 of the SDS for Personal Protective Equipment.

7.2 Conditions for safe storage, including any incompatibilities:

Keep containers tightly closed. Store in original container. Avoid contact with oxidizing agents.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters:****Occupational exposure limits:**

This product does not contain any components >1% with specific occupational exposure limits.

8.2 Appropriate engineering controls:

Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of dust.

8.3 Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear dust-proof safety goggles where there is a risk of eyes contact. (EN 166)

Skin protection:

Hand Protection: No special precautions.

Other: Wear suitable protective clothing.

Respiratory Protection: In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter (type P1). (EN 143)

Hygiene measures: Handle the product in accordance with the good hygiene practices and safety instructions.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties:**

Physical State:	solid
Form:	Powder
Color:	White
Odor:	Odorless
pH:	~ 4,7 at 50 % w/w in water
Melting Point:	Not Applicable No data available.
Boiling Point:	Not Applicable
Flash Point:	Not Applicable
Vapor pressure:	Not Applicable
Vapor density (air=1):	Not Applicable
Relative density:	~ 0,50
Solubility in Water:	~ 600 g/l at 20 °C
Partition coefficient (n-octanol/water):	< -2 - REACH data -
Decomposition Temperature:	> 200 °C

Explosive properties: - INERIS -

(*) : measured value Data from similar product.

Ignition Temperature:	~ 420 °C (EN 50281-2-1 / ASTM E1491) ~ 400 °C (EN 50281-2-1/ ASTM E2021) * ~ 278 °C product in deposit.
MIE (Minimum Ignition Energy):	~ 300 mJ (EN 13821 / ASTM E2019, Without Inductance) Sensitive to the risk of inflammation by an electrostatic discharge. 30 - 100 mJ (EN 13821 / ASTM E2019, With Inductance)
dP/dtmax (Maximum Rate of explosion Pressure rise):	~ 536 bar/s (EN 14034-2 / ASTM E1226)
Pmax (Maximum Explosion OverPressure) ±10%:	~ 9,3 bar (EN 14034-1 / ASTM E1226)
Kst value (±20%):	~ 146 bar.m/s (EN 14034-2 / ASTM E1226)
Dust Explosion Class:	st 1 (VDI 3673)
Volume resistivity:	~ 1,45 ¹² Ω.m (IEC 61241-2-2 / Group IIIB non-conductive dust.)
Moisture:	~ 4,2 % (ISO 589)
Mv (Median value):	~ 100 µm (ISO 13320)
Other Data:	MEC (Minimum Explosible Concentration) : 30-60 g/m ³ (EN 14034-3 / ASTM E1515) BZ (Combustion class) : 5 (VDI 2263-1)

9.2 Other information:

Conductivity: ~ 9,9 µS/cm (at 50%)

The data reported in this section does not take the place of specifications.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Strong oxidizing agents.
10.2 Chemical stability:	Material is stable under normal conditions.
10.3 Possibility of hazardous reactions:	No hazardous reactions under ordinary conditions of use and storage.
10.4 Conditions to avoid:	Prevent dust cloud. Dust clouds may be explosive under certain conditions. Avoid dust close to ignition sources.
10.5 Incompatible materials:	Strong oxidizing substances.
10.6 Hazardous decomposition products:	Carbon Monoxide. Carbon Dioxide.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity :

Test / Substance	Species	Type / Result	Exposure	Remarks
OECD 423 D-glucitol	Mouse	LD50 - Oral >2000mg/kg No mortalities were reported during the study period.		- REACH data - Data from similar product.

Skin irritation. :

Test / Substance	Species	Result	Exposure	Remarks
OECD 431 Glucose syrups wheat hydrolysed	Human	In vitro Not Irritating	1 h	- REACH data - Data from similar product.

Serious eye irritation :

Test / Substance	Species	Result	Exposure	Remarks
OECD 437 Glucose syrups wheat hydrolysed	Bovine cornea.	Not Irritating	4 h	- REACH data - Data from similar product.
OECD 405 Glucose syrups wheat hydrolysed	Rabbit	Not Irritating	72 h	- REACH data - Data from similar product.

Sensitization :

Test / Substance	Type	Species	Result	Remarks
OECD 429 Glucose syrups wheat hydrolysed	In vivo	Mouse	Non-Sensitising	- REACH data - Data from similar product.

Repeated dose toxicity :

Test / Substance	Species	Result	Exposure	Remarks
OECD 453 4-O-a-D-glucopyranosyl-D-glucitol	Rat	No treatment related effects.	52 Week(s).	- REACH data - Data from similar product.

Mutagenesis :

Test / Substance	Type	Species	Result	Remarks
OECD 473 Syrups, hydrolyzed starch, hydrogenated	In vitro	Hamster	Negative	- REACH data - Data from similar product.
OECD 471 (Ames) Syrups, hydrolyzed starch, hydrogenated	In vitro	S. typhimurium	Negative	- REACH data - Data from similar product.
OECD 475 D-glucitol	In vivo	Rat	Negative	- REACH data - Data from similar product.
OECD 474 Syrups, hydrolyzed starch, hydrogenated	In vivo	Mouse	Negative	- REACH data - Data from similar product.
OECD 478 D-glucitol	In vivo	Rat	Negative	- REACH data - Data from similar product.

Carcinogenicity :

Test / Substance	Species	Route of Exposure / Exposure	Result	Remarks
OECD 453 4-O-a-D-glucopyranosyl-D-glucitol	Rat	Oral 2 Year(s)	No treatment related effects.	- REACH data - Data from similar product.

Reproductive toxicity :

Test / Substance	Species	Route of Exposure / Exposure	Result	Remarks
OECD 416 4-O-a-D-glucopyranosyl-D-glucitol	Rat	Oral 12 Week(s).	No treatment related effects.	- REACH data - Data from similar product.
OECD 414 D-glucitol	Hamster	Oral 15 day(s)	No treatment related effects. NOAEL : 1 200 mg/kg	- REACH data - Data from similar product.

SECTION 12: Ecological information
12.1 Toxicity:
Acute toxicity:

Test / Substance	Species	Type/Result	Exposure	Remarks
OECD 203 Glucose syrups wheat hydrolysed	Common Carp	LC50 : > 100 mg/l Non toxic.	96 h	- REACH data -
OECD 202 Glucose syrups wheat hydrolysed	Daphnia magna	LC50 : > 100 mg/l Non toxic.	48 h	- REACH data -
OECD 201 Glucose syrups wheat hydrolysed	Pseudokirchneriella subcapitata	LC50 : > 100 mg/l Non toxic.	72 h	- REACH data -

Chronic Toxicity:

No data available.

12.2 Persistence and degradability:

Test / Substance	Result	Remarks
OECD 301b Glucose syrups wheat hydrolysed	> 73 % / 28 d The product is readily biodegradable.	- REACH data -

12.3 Bioaccumulative potential:

Potential to bioaccumulate is low.

12.4 Mobility in soil:

This material is readily biodegraded and is not likely to bioconcentrate.

12.5 Other adverse effects:

None known.

SECTION 13: Disposal considerations
13.1 Disposal methods:
Product:

Dispose of waste in an appropriate authorized treatment facility in accordance with regulations in force and product characteristics at time of disposal.

Packaging material:

Single use packaging. Collect for salvage or disposal.

SECTION 14: Transport information

14.1 - 14.4 This material is not subject to transport regulations (IMDG, ICAO/IATA, ADR/RID, ADN).

14.5 Environmental hazards:

Not regulated.

14.6 Special precautions for user:

No special precautions.

14.7 Maritime transport in bulk according to IMO instruments:

Not applicable.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:****International Inventories :**

Australia. Inventory of Chemical Substances (AICS):	Listed.
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL):	Listed.
China. Inventory of Existing Chemical Substances (IECSC):	Listed.
EU. European Inventory of Existing Commercial Chemical Substances (EINECS):	Listed.
Japan. Pharmacopoeia Listing:	Listed.
Korea. Existing Chemicals Inventory (KECI):	Listed.
New Zealand. Inventory of Chemicals (NZIoC):	Listed.
Philippines. Inventory of Chemicals and Chemical Substances (PICCS):	Listed.
Taiwan. Existing Chemicals Inventory (TCSI):	Listed.
US. Toxic Substances Control Act (TSCA):	Listed.
Vietnam. National Chemical Inventory:	Listed.

This Safety Data Sheet is in conformity with appendix 4 of the GHS (Globally Harmonised System of Classification and Labelling of Chemicals).

SECTION 16: Other information**Revision Information:**

Not relevant.

Key literature references and sources for data:

- Internal data -
REACH registration dossier:
<https://echa.europa.eu/en/registration-dossier/-/registered-dossier/15066>

Other information:

Updated version of this document is available at :<https://www.roquette.com/site-search#documents>

Abbreviations and acronyms used in the SDS.:

LD50: lethal dose 50%
LC50 : lethal concentration 50%
CAS: Chemical Abstracts Service (division of the American Chemical Society)
CLP : Classification, Labelling and Packaging.
DNEL : derived no-effect level
OECD : Organisation for Economic Cooperation and Development
PBT: Persistent, Bioaccumulative and Toxic
PNEC : predicted no-effect concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals.
vPvB: very persistent and very bioaccumulative substance.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
NOAEL : No Observed Adverse Effect Level

Disclaimer:

The information provided in this Safety Data Sheet (SDS) relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. It is the responsibility of the user to be aware of and to follow the regulations applying to our product for its possession, handling and use.
The information given is designed only as a guidance and is not to be considered a warranty or quality specification.
All information and instructions provided in this SDS are based on the current state of our knowledge at the latest revision date indicated.