

SAFETY DATA SHEET GLUCOSE SYRUP 4280

SECTION 1 : Identification

1.1 Product identifier:

Product name: GLUCOSE SYRUP 4280

Chemical name: Syrups, hydrolyzed starch

CAS-No.: 8029-43-4

EC No.: 232-436-4

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

Identified uses:	Uses advised against:
Human nutrition	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: No data available.

SECTION 3: Composition/information on ingredients

3.1 Substance:

Chemical name	Concentration	CAS-No.
Syrups, hydrolyzed starch	>=80%	8029-43-4

SECTION 4: First aid measures

4.1 Description of first aid measures:

Inhalation: Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

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

Skin contact: Wash with soap and water. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

Ingestion: Product not hazardous when ingested.

4.2 Most important symptoms and effects, both acute and delayed: Material may be hot. May cause severe thermal burns.

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, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture: Fire or excessive heat may produce hazardous decomposition products. See Section 10.

5.3 Advice for firefighters:

Special Fire Fighting Procedures: Cool containers exposed to heat with water spray and remove container, if no risk is involved.

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: Caution: Contaminated surfaces may be slippery. 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: Absorb spillage with suitable absorbent material. Collect and dispose of spillage as indicated in section 13 of the SDS. Flush area with water.

SECTION 7: Handling and storage

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

7.2 Conditions for safe storage, including any incompatibilities:

Avoid contact with oxidizing agents. Store in a dry place. Maintain an appropriate temperature to avoid crystallisation problems.

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:

No special requirements under ordinary conditions of use and with adequate ventilation.

8.3 Individual protection measures, such as personal protective equipment:

Eye/face protection: If risk of splashing, wear safety goggles or face shield. (EN 166)

Skin protection:

Hand Protection: When material is heated, wear gloves to protect against thermal burns.

Other: Wear suitable protective clothing.

Respiratory Protection: No specific precautions.

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:	Liquid
Form:	Viscous Liquid
Color:	Pale yellow
Odor:	Odorless
pH:	~ 4.5 at 50 %
Freezing point:	~ 0 °C
Boiling Point:	> 105 °C
Flash Point:	> 200 °C
Flammability (solid, gas):	NC: Not Classified
Vapor pressure:	~ 17 hPa
Vapor density (air=1):	~ 0.7
Relative density:	~ 1.4
Solubility in Water:	Completely Soluble at 20 °C
Partition coefficient (n-octanol/water):	< -2 - ECHA Database -
Viscosity:	~ 17,000 mPa.s at 40 °C

9.2 Other information:

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:** Solutions may become hazy, partially precipitate from solution, or gel with time on exposure to low temperature.
- 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 -

Serious eye irritation :

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

Sensitization :

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

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 Not classified	96 h	- REACH data -
OECD 202 Glucose syrups wheat hydrolysed	Daphnia magna	LC50 : > 100 mg/l Not classified	48 h	- REACH data -
OECD 201 Glucose syrups wheat hydrolysed	Pseudokirchneriella subcapitata	LC50 : > 100 mg/l Not classified	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:

Test / Substance	Log Pow (n-Octanol/Water Partition Coefficient)	Bioconcentration Factor (BCF) / Bioaccumulation	Remarks
	< -2	3.16	Potential to bioaccumulate is low. - ECHA Database -

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 Transport in bulk according to Annex II of Marpol and the IBC Code:

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. Inventory of Existing & New Chemical Substances (ENCS):	Listed.
Japan. Industrial Safety & Health Law (ISHL):	Not Applicable
Japan. Pharmacopoeia Listing:	Not listed
Korea. Existing Chemicals Inventory (KECI):	Listed.
Mexico. National Inventory of Chemical Substances (INSQ):	Not listed
New Zealand. Inventory of Chemicals (NZIoC):	Listed.
Philippines. Inventory of Chemicals and Chemical Substances (PICCS):	Listed.
Taiwan. Existing Chemicals Inventory (TCSI):	Listed.
Thailand. Existing Chemicals Inventory from FDA (TECI):	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: REACH registration file.

Abbreviations and acronyms used in the SDS.:

LD50: lethal dose 50%

LC50 : lethal concentration 50%

NOAEL : No Observed Adverse Effect Level

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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.