

Material Safety Data Sheet

According to (EC) No 1907/2006 (REACH) and 1272/2008 (CLP)

HESPERIDINUM

EN

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name: Hesperidin
Hesperidinum
Hesperidine
Hespéridine
Hesperidin

N° CAS: 520-26-3

N° EC: 208-288-1

1.2 Relevant identified uses of the substance/mixture and uses advised against

Identified uses: Active Pharmaceutical Ingredient or Excipient.

1.3 Details of the supplier of the safety data sheet

Company: FAC SECUNDUM ARTEM NV
Oostmalsebaan 1c (unit 5)
2960 Sint-Lenaarts
Belgium

Telephone: (+32) (0)3 457 11 76

Email: info@magis-pharma.be

Web page: www.magis-pharma.be

1.4 Emergency telephone number

Public utility foundation:	Belgisch Antigifcentrum	Centre Antipoisons Belge
Telephone:	(+32) (0)70 245 245	(Service 24/7)
Web page:	www.antigifcentrum.be	www.centreantipoisons.be

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance/mixture

Classification according to (EC) n° 1272/2008

The product is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.

2.2 Label elements

Labelling according to (EC) n° 1272/2008

Hazard pictogram(s): Not applicable.

Signal word(s): Not applicable.

Hazard statements: Not applicable.

Precautionary statements: Not applicable.

Additional applicable label elements: Not applicable.

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2.3 Other hazards

Product fails to meet PBT/vPvB criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Product name:	Hesperidin
IUPAC name:	(2S)-5-hydroxy-2-(3-hydroxy-4-methoxyphenyl)-7-(((2S,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(((2R,3R,4R,5R,6S)-3,4,5-trihydroxy-6-methyloxan-2-yl]oxy)methyl)oxan-2-yl]oxy)-3,4-dihydro-2H-1-benzopyran-4-one
Synonyms:	Cirantin Hesperidoside
N° CAS:	520-26-3
N° EC:	208-288-1
Molecular Formula:	C ₂₈ H ₃₄ O ₁₅
Content:	Hesperidin contains not less than 90.0% and not more than 102.0% of hesperidin (C ₂₈ H ₃₄ O ₁₅), calculated on the dried basis.

3.2 Mixtures

Not applicable.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes:	Consult a doctor in case of discomfort showing the MSDS of the product.
After inhalation:	In case of symptoms, move the person affected into fresh air.
After skin contact:	In case of contact, it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters, ...), seek medical advice with this MSDS.
After eye contact:	Rinse with water until the product has been eliminated. In case of problems, consult a doctor showing the MSDS of the product.
After ingestion:	In case of consumption in large quantities, it is recommended to seek medical assistance.

4.2 Most important symptoms and effects, both acute and delayed

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

Not available.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

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Suitable extinguishing media:

Product is non-flammable, with a low risk of fire due to the flammability characteristics of the product in normal conditions of storage, handling and use. In the case of the existence of sustained combustion as a result of improper handling, storage or use, any type of extinguishing agent can be used (ABC Powder, water,...).

Unsuitable extinguishing media:

Not available.

5.2 Special hazards arising from the substance/mixture

Due to its inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

5.3 Advice for firefighters

Surrounding fires:

Additional provisions: Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

Protection against fire:

Depending on the magnitude of the fire, it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Hazardous combustion products:

Not available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Isolate leaks provided that there is no additional risk for the people performing this task.

For emergency responders

Isolate leaks provided that there is no additional risk for the people performing this task.

6.2 Environmental precautions

This product is not classified as environmentally hazardous. Keep the product away from drains, surface water and groundwater.

6.3 Methods and material for containment and cleaning up

It is recommended: Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections

See sections 8 and 13.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Precautions for safe handling:

Precautions for safe manipulation: Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

Personal protection:

Not available.

Technical protective measures:

Technical recommendations for the prevention of fires and explosions: It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.

Technical recommendations to prevent ergonomic and toxicological risks: Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

Technical recommendations to prevent environmental risks: It is not necessary to take special measures to prevent environmental risks. For more information, see subsection 6.2.

Handling:

Not available.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

In well-closed, airtight container.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry and well-ventilated area.

Storage – away from:

Avoid sources of heat, radiation, static electricity and contact with food. For additional information, see subsection 10.5.

7.3 Specific end use(s)

Active Pharmaceutical Ingredient or Excipient

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

DNEL (Workers):

Dermal, systemic, short exposure: 7.5 mg/kg

Dermal, systemic, long exposure: 7.5 mg/kg

Inhalation, systemic, short exposure: 52.89 mg/m³

Inhalation, systemic, long exposure: 52.89 mg/m³

DNEL (General population):

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Oral, systemic, long exposure: 3.75 mg/kg
Dermal, systemic, long exposure: 3.75 mg/kg
Inhalation, systemic, short exposure: 13.04 mg/m³
Inhalation, systemic, long exposure: 13.04 mg/m³

8.2 Exposure controls

Appropriate engineering control

The usual precautionary measures are to be adhered to when handling chemicals.

Individual protection measures

Eye/face protection: Panoramic glasses against splash/projections. Labelling: CE cat. II.
CEN Standard: EN 166:2001, EN ISO 4007:2018.
Remarks: Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

Skin protection: Work clothing. Labelling: CE cat. I.
Remarks: Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
Anti-slip work shoes. Labelling: CE cat. II. CEN Standard: EN ISO 20347:2012.
Remarks: Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users, CE III is recommended, in accordance with the regulations in EN ISO 20345:2012, EN 13832-1:2007.

Hand protection: Protective gloves against minor risks. Labelling: CE cat. I.
Remarks: Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2003+ A1:2009 and EN ISO 374-1:2016

Respiratory protection: The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

Thermal hazards: Not determined.

Environmental exposure control

In accordance with the community legislation for the protection of the environment, it is recommended to avoid environmental spillage of both the product and its container. For additional information, see subsection 7.1. (Technical recommendations to prevent environmental risks).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Light yellow powder.

Odour: Odourless.

Odour threshold: Not applicable *.

pH: Not applicable *.

Melting/freezing point: 262.0 °C

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Initial boiling point:	Not applicable *.
Boiling range:	Not applicable *.
Flash point:	Not applicable *.
Evaporation rate:	Not applicable *.
Flammability (solid/gas):	Not applicable *.
Upper/lower flammability or explosive limits:	Not applicable *.
Vapour pressure:	Not applicable *.
Vapour density:	Not applicable *.
Relative density:	1.65 (20 °C)
Solubility:	Not applicable *.
Solubility in water:	Not applicable *.
Partition coefficient (n-octanol/water):	Not applicable *.
Auto-ignition temperature:	Not applicable *.
Decomposition temperature:	Not applicable *.
Viscosity:	Not applicable *.
Explosive properties:	Not applicable *.
Oxidising properties:	Not applicable *.

9.2 Other information

*Not relevant due to the nature of the product, not providing information about its hazards.

Density at 20 °C: 1 650 kg/m³

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid

Not available.

10.5 Incompatible materials

Avoid strong acids. Avoid alkalis or strong bases.

10.6 Hazardous decomposition products

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See subsections 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:	Oral LD50 (rat): 2 000 mg/kg
Skin corrosion/irritation:	Based on available data, the classification criteria are not met.
Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory/skin sensitisation:	Based on available data, the classification criteria are not met.
Germ cell mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Reproductive toxicity:	Based on available data, the classification criteria are not met.
Summary of evaluation of the CMR properties:	Based on available data, the classification criteria are not met.
STOT-single exposure:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration Hazard:	Based on available data, the classification criteria are not met.
Other:	Not available.

11.2 Additional information on potential adverse human health effects and symptoms

Eye contact:	Not available.
Skin contact:	Not available.
Inhalation:	Not available.
Ingestion:	Not available.
Aspiration:	Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Not available.

12.5 Results of PBT and vPvB assessment

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Product fails to meet PBT/vPvB criteria.

12.6 Other adverse effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated.

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014.

SECTION 14: TRANSPORT INFORMATION

Transport information according to ADR/RID/IMDG/ICAO/IATA

14.1 UN Number

ADR/ RID(Land),IMDG(Sea), Not classified.
IATA/ICAO (Air) :

14.2 UN proper shipping name

ADR/ RID(Land),IMDG(Sea), Not classified.
IATA/ICAO (Air) :

14.3 Transport hazard class(es)

ADR/ RID(Land),IMDG(Sea), Not classified.
IATA/ICAO (Air) :

14.4 Packing group

ADR/ RID(Land),IMDG(Sea), Not classified.
IATA/ICAO (Air) :

14.5 Environmental hazards

ADR/ RID(Land),IMDG(Sea), Not classified.
IATA/ICAO (Air) :

14.6 Special precautions for user

Not available.

14.7 Transport in bulk according to annex II of Marpol and the IBC Code

Not available.

14.8 Additional transport information

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This product is not regulated for transport (ADR/RID, IMDG, IATA).

SECTION 15: REGULATORY INFORMATION

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

Hazard symbol: Not applicable.

Risk phrases: Not applicable.

Safety phrases: Not applicable.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

16.1 Changes since the previous version

Not applicable.

16.2 Abbreviations and acronyms used

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
EC (number):	European Community (number)
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organization
IMDG:	International Maritime Code for Dangerous Goods
IUPAC:	International Union of Pure and Applied Chemistry
PBT:	Persistent, Bioaccumulative and Toxic substance
RID:	Regulations Concerning the International Transport of Dangerous Goods by Rail
STOT:	Specific Target Organ Toxicity
UN (number):	United Nations (number)
vPvB:	very Persistent and very Bioaccumulative

16.3 Key literature references/sources for data

European Chemicals Agency.
<https://www.echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database/>

16.4 Method of classification in case of mixture

Not applicable.

16.5 Relevant Hazard statements and/or precautionary statements

For information on hazard and/or precautionary statements refer to section 2 up to and including section 15.

16.6 Training advisement

Not available

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16.7 Notice for user(s)

The information provided in this MSDS has been established in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015, amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council, on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94, as well as Council Directive 76/769/EEC and Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC of the Commission.

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16.8 Department issuing MSDS

Quality Department

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