Safety Data Sheet
GALILEO

Safety Data Sheet dated 01/04/2020, version 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

.1 Product Identifier

Identification of the preparate:

Trade name: GALILEO

Trade code: -

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

Agricultural use

Other use not admitted

1.3 Details of the supplier of the safety data sheet

Company:

ISAGRO S.p.A. – Via Caldera, 21 – 20153 – Milan - Italy

Emergency telephone number of the company and/or of an authorised advisory centre:

Tel.: 02 40 901 276

Competent person responsible for the safety data sheet:

msds@isagro.com

1.4 Emergency telephone number

QHSE Department (office time, local: 9.00-18.00) - Phone n.. ++39 02 40901209

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

In compliance with EC Regulation n. 1272/2008 (CLP):

Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Hazard statements:

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

EUH210 Safety data sheet available on request.

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards
No vPvB and PBT in the mixture

Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures
Hazardous components within the meaning of the CLP regulation and related classification:

Qtà	Nome	Numero d'identif.	Classificazione
>= 3% - < 5%	(+/-) 2-(2,4-dichlorophenyl)-3-(1 H -1,2,4-triazol-1-yl)propyl-1,1,2,2-tetrafluoroethyl ether; tetraconazole	Numero Index: 613-174-00-3 CAS: 112281-77-3 EC: 407-760-7	4.1/C2 Aquatic Chronic 2 H411 3.1/4/Oral Acute Tox. 4 H302 3.1/4/Inhal Acute Tox. 4 H332
>= 1% - < 3%	Di-(2-ethyl hexyl) sodium sulfosuccinate	CAS: 577-11-7 Reach: 01-2119491296-29	3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318

SECTION 4: First aid measures

4.1. Description of first aid measures
In case of skin contact:
Wash with plenty of water and soap.
In case of eyes contact:
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
In case of Ingestion:
Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.
4.2. Most important symptoms and effects, both acute and delayed
None
4.3. Indication of any immediate medical attention and special treatment needed
Treatment:
None

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
Water.
Carbon dioxide (CO2).
Extinguishing media which must not be used for safety reasons:
None in particular.
5.2 Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases which, at high temperatures, may contain toxic substances such as COx, NOx, HCl, HF and HCN.
Burning produces heavy smoke.
5.3 Advice for fire-fighters
Use suitable breathing apparatus. Self-contained breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Remove all sources of ignition.
Remove persons to safety.
See protective measures under point 7 and 8.
6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand
6.3. Methods and material for containment and cleaning up
Wash with plenty of water.
6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
7.2. Conditions for safe storage, including any incompatibilities
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.
7.3. Specific end use(s)
None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No occupational exposure limit available
DNEL Exposure Limit Values
N.A.
PNEC Exposure Limit Values
N.A.

8.2. Exposure controls
Eye protection:
Use close fitting safety goggles in compliance with EN166 standards.
Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.
Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber in compliance with EN374 standards.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Yellowish, liquid	--	--
Odour:	slight, characteristic	--	--
Odour threshold:	Not determined	--	--
pH:	6.25 (1% in water)	--	--
Melting point / freezing point:	< 0° C	--	--
Initial boiling point and boiling range:	> 100 °C	--	--
Flash point:	> 100.5 °C ° C	--	--
Evaporation rate:	Not relevant	--	--
Solid/gas flammability:	Not applicable	--	--
Upper/lower flammability or explosive limits:	Not determined	--	--
Vapour pressure:	0.14 mPa at 20 °C	--	Referred to *tetraconazole*
Vapour density:		--	--
Relative density:	1.058 at 20 °C kg/l	--	--
Solubility in water:	It gives emulsions	--	--
Solubility in oil:	Miscible in most common organic solvents	--	--
Partition coefficient (n-octanol/water):	Log P = 3.53	--	Referred to *tetraconazole*
Auto-ignition temperature:	450 °C	--	--
Decomposition temperature:	Not relevant	--	--
Viscosity:	Not relevant	--	--
Explosive properties:	Not explosive	--	On the basis of components
Oxidizing properties:	Not oxidizing	--	On the basis of components

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	Not available	--	--
Fat Solubility:	Not available	--	--
Conductivity:	Not available	--	--
Substance Groups relevant properties	Not available	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions
10.2. Chemical stability
Stable under normal conditions
10.3. Possibility of hazardous reactions
None
10.4. Conditions to avoid
Stable under normal conditions.
10.5. Incompatible materials
None in particular.
10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Data referred to the *mixture*:
Acute toxicity:
LD50 (oral): > 2000 (rat)
LD50 (dermale): > 2000 mg/kg
LC50 (4h) (inhalation): not available

Irritating power:
Skin: Not irritant (rabbit). Not classified as a skin irritating substance (OECD 404)
Eyes: Not irritant (rabbit). Not classified as a eye irritating substance (OECD 405)

Data referred to *tetraconazole*:
LC50 (4h) (inhalation) (OECD 403):
2.83 mg/l air (rat, male, nose only)
> 3.66 mg/l air (rat) (max attainable conc.)

Sensitization:
Skin: Not classified as sensitizer
(ECD 406, US EPA 81-6, Guinea Pig, Buehler Test; OECD 406, EEC B.6 – Guinea Pig

Short-term toxicity:
NOAEL oral:
rat, 90 gg.: 4.1 mg/kg bw/d (OECD 408; US EPA 82-1)
NOAEL oral:
dog, 1 year: 2.95 mg/kg bw/d (OECD 452; US EPA 83-1)

Carcinogenic effect (OECD 451):
No carcinogenic effect

Mutagenic effect (EPA-TSCA 793400):
No mutagenic effect

Teratogenic effect (EPA-TSCA 793400):
No teratogenic effect

Reproduction toxicity (OECD 416):
No evidence of reproduction toxicity

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Adopt good working practices, so that the product is not released into the environment.

Dati riferiti alla *miscela*:
Pesce -
Tossicità acuta:
Zebra fish (*Brachydanio rerio*), LC50 (96h): > 100 mg/L (OECD 203)

Invertebrati -
Daphnia magna,
EC50 (48 h): 42.1 mg/L (OECD 202):

Alghe -
Scenedesmus subspicatus,
EbC50 (72h): 10.4 mg/L (OECD 201)
ErC50 (72h): 39.7 mg/L (OECD 201)

Data referred to *tetraconazole*:
Fish–
Acute toxicity/chronic (OECD 203, EPA 72-1):
Rainbow trout, LC50 (96h): 4.8 mg/l; NOEC (96 h): 1.0 mg/l
Bluegill sunfish, LC50 (96h): 4.3 mg/l; NOEC (96 h): 1.8 mg/l
Life first stage (OECD n. 210):
Fathead minnow,
NOEC (28 g): 0.96 mg/l
NOEC (34 g): 1.09 mg/l

Invertebrates –
Acute toxicity/chronic (OECD 202):
Daphnia magna,
EC50 imm. (48 h): 3.0 mg/L; NOEC (21 g): 0.44 mg/l

Algae-
Acute toxicity/chronic (OECD 203, EPA 72-1):
Scenedesmus subspicatus,
ErC50 (72h): 0.41 mg/L
EbC50 (72h): 0.27 mg/L
NOEC (72h): 0.14 mg/L

Aquatic plants – Effects (Guideline OECD, draft; Linee guida US EPA):
Lemna Gibba,
EC50 (7 d, statico): 0.52 mg/l; NOEC: 0.032 mg/l ; LOEC: 0.10 mg/l
ErC50 (7d): 1.56 mg/l; NOEC: 0.10 mg/l; LOEC: 0.32 mg/l

12.2 Persistence and degradability
Data referred to *tetraconazole:*
Stable to hydrolysis and not expected to be dagradated by photolisis in water.
Not readily biodegradable

12.3 Bioaccumulative potential
Data referred to *tetraconazole*:
BCF = 35.7 (whole fish)

12.4 Mobility in soil
Data referred to *tetraconazole*:
Koc between tra 531 e 1922

12.5 Results of PBT and vPvB assessment
Not requested, no PBT and/or vPvB substances in the mixture.

12.6 Other adverse effects
None

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

ADR-UN number:	3082
IMDG-Un number:	3082

14.2. UN proper shipping name

ADR-Shipping Name:	3082
IMDG-Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (tetraconazole)

14.3. Transport hazard class(es)

ADR-Class:	9
ADR-Label:	9
ADR – Hazard identification number:	90
IMDG-Class:	9
IMDG-Label:	9 + Marine Pollutant

14.4. Packing group

ADR-Packing Group:	III
IMDG-Packing group:	III

14.5. Environmental hazards

Marine pollutant:	Marine pollutant

14.6. Special precautions for user

IMDG-EMS:	F-A, S-F
Limited Quantity:	5 L
Tunnel Restriction Code:	(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Environmental Pollutant:
Not requested

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 1221/2015 (ATP 7 CLP)
Regulation (EU) n. 918/2016 (ATP 8 CLP)
Regulation (EU) n. 1176/2016 (ATP 9 CLP)
Regulation (UE) n. 776/2017 (ATP 10 CLP)
Regulation (UE) n. 669/2018 (ATP 11 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Where applicable, refer to the following regulatory provisions :

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.
Regulation (EC) nr 648/2004 (detergents).
1999/13/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Not applicable

15.2. Chemical safety assessment

Not requested

SECTION 16: Other information

H-statements in section 3:

H411 Toxic to aquatic life with long lasting effects.
H302 Harmful if swallowed.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H318 Causes serious eye damage

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.