Safety Data Sheet
DOMARK 10 EC

Safety Data Sheet dated 14/9/2018, version 2

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

1.1. Product identifier

Mixture identification:
Trade name: DOMARK 10 EC
Trade code: -

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

Agricoltural 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

QSE Department (office hours, local time: 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):

 Warning, Acute Tox. 4, Harmful if swallowed.

 Danger, Asp. Tox. 1, May be fatal if swallowed and enters airways.

 Warning, Skin Irrit. 2, Causes skin irritation.

 Warning, Eye Irrit. 2, Causes serious eye irritation.

 Warning, STOT SE 3, May cause drowsiness or dizziness.

 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:

Danger

Hazard statements:

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P331 Do NOT induce vomiting.
P337+P313 If eye irritation persists: Get medical advice/attention.
P391 Collect spillage.
P501 Dispose of contents/container in accordance with applicable regulation

Special Provisions:

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/or PBT in the mixture

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

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

Qty	Name	Ident. Number		Classification
>= 80% - < 90%	Hydrocarbons C10 aromatic, < 1% naphtalene	EC:	918-811-1 01-21194635 83-34	3.10/1 Asp. Tox. 1 H304 3.8/3 STOT SE 3 H336 4.1/C2 Aquatic Chronic 2 H411 EUH066
>= 10% - < 12.5%	(+/-) 2-(2,4-dichlorophenyl)-3-(1 H -1,2,4-triazol-1-yl)propyl-1,1,2,2-tetrafluoroethyl ether	Index number: CAS: EC:	613-174-00-3 112281-77-3 407-760-7	4.1/C2 Aquatic Chronic 2 H411 3.1/4/Oral Acute Tox. 4 H302 3.1/4/Inhal Acute Tox. 4 H332
>= 3% - < 5%	Benzensolfonic Acid, 4-C10-14 alkylderivatives calcium salts	CAS: EC:	90194-26-6 290-635-1	3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318
>= 3% - < 5%	2-methylpropan-1-ol; iso-butanol	Index number: CAS: EC:	603-108-00-1 78-83-1 201-148-0	2.6/3 Flam. Liq. 3 H226 3.8/3 STOT SE 3 H335 3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 3.8/3 STOT SE 3 H336

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.
Give nothing to eat or drink.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
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 and HF.
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
2-methylpropan-1-ol; iso-butanol - CAS: 78-83-1
ACGIH - LTE(8h): 50 ppm - Notes: Skin and eye irr

DNEL Exposure Limit Values
N.A.

PNEC Exposure Limit Values
N.A.

8.2. Exposure controls

Eye protection:
Use close fitting safety goggles, don't use eye lens.

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.

Respiratory protection:
Use adequate protective respiratory equipment.

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:	Liquid, yellowish	--	--
Odour:	Aromatic	--	--
Odour threshold:	Not available	--	--
pH:	Approx. 7-8 (1% in water)	CIPAC MT 75.3	
Melting point / freezing point:	<-10 °C	--	--
Initial boiling point and boiling range:	Not available	--	--
Flash point:	64 °C	EEC A.9	--
Evaporation rate:	Not available	--	--
Solid/gas flammability:	Not available	--	--
Upper/lower flammability or explosive limits:	Not available	--	--
Vapour pressure:	0.18 mPa at 20 °C	OECD 104	Referred to *tetraconazole*
Vapour density:	Not available	--	--
Relative density:	0.94 kg/l	OECD 109	--
Solubility in water:	It gives emulsions	--	--
Solubility in oil:	Soluble in most organic solvents	--	Referred to *tetraconazole*
Partition coefficient (n-octanol/water):	Log P = 3.56	OECD 107	Referred to *tetraconazole*
Auto-ignition temperature:	Not available	--	--
Decomposition temperature:	Not available	--	--
Viscosity:	Not available	--	--
Explosive properties:	Not explosive	EECA.14	--
Oxidizing properties:	Not oxidizing	--	On the basis of components

9.2. Other information

Properties	Value	Method:	
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) (EPA 81-1):
2370 mg/kg (male, rat)
1760 mg/kg (female, rat)
LD50 (dermal): > 2000 mg/kg (rabbit) (EPA 81-2)
LC50 (4h) (inhalation): > 5.22 mg/l air (rat) (EPA 81-3)

Irritating power
Skin: moderately irritant (EPA 81-5)
Eyes: irritant (EPA 81-4)

Sensitization:
Not sensitizing agent (Guinea Pig) (EPA 81-6)

Data referred to *tetraconazole*:

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

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as not available:

a) acute toxicity;
b) skin corrosion/irritation;
c) serious eye damage/irritation;
d) respiratory or skin sensitisation;
e) germ cell mutagenicity;
f) carcinogenicity;
g) reproductive toxicity;
h) STOT-single exposure;
i) STOT-repeated exposure;
j) aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

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

Data referred to the *mixture*:
Fish -
Acute toxicity:
Rainbow trout, LC50 (96h): 3.8 mg/L (OECD 203)

Invertebrates -
Daphnia magna,
LC50 (48 h): 1.1 mg/L (OECD 202)

Algae -
Ankistrodesmus bibraianus,
EC50 (72h): 2.2mg/L (OECD 201)

12.2 Persistence and degradability
Data referred to *tetraconazole*:
Water-sediment study:
DT50(whole system) = 310 – 372 g
DT50 (soil): 111.8 gg. (geometric mean on studies 4 soils)
Tetraconazole is stable to hydrolisis and is not expected its degradation by photolysis
Tetraconazole is not readily degradable

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

12.4 Mobility in soil
Data referred to *tetraconazole*:
Mobility: Koc from 531 to 1922 mL/g (4 soils)
Il Tetraconazolo has low mobility in acid soils

12.5 Results of PBT and vPvB assessment
No PBT and/or vPvB in the mixture. No chemical safety report is required

12.6 Other adverse effects
No other adverse effect to be mentioned

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. 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

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
Not applicable

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 (UE) n. 1221/2015 (ATP 7 CLP)
Regulation (UE) n. 918/2016 (ATP 8 CLP)
Regulation (UE) n. 1179/2016 (ATP 9 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):
To be evaluated according to stock quantity

15.2. Chemical safety assessment
Not requested

SECTION 16: Other information

H-statements in section 3:

H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.
H302 Harmful if swallowed.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H226 Flammable liquid and vapour.
H335 May cause respiratory irritation.

Paragraphs modified with reference to the previous revision:
3. Composition/information on ingredients
8. Exposure controls/personal protection
15. Regulatory information

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.