



Safety Data Sheet dated 11/11/2016, version 1

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

### 1.1. Product identifier

Mixture identification:

Trade name: DOMARK Combi PB

Trade code: 5773

### 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](mailto:msds@isagro.com)

### 1.4 Emergency telephone number


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

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

With reference to EC Regulation n. 1272/2008 (CLP):

 Warning, Skin Irrit. 2, Causes skin irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H315 Causes skin irritation.

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.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water

Special Provisions:

None

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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

Not applicable

3.2. Mixtures

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

Qty	Name	Ident. Number	Classification
>= 40% - < 50%	sulfur	Index number: 016-094-00-1 CAS: 7704-34-9 EC: 231-722-6	 3.2/2 Skin Irrit. 2 H315
>= 1% - < 3%	Reaction product of naphthalene propan-2-ol sulfonated and neutralized by caustic	CAS: 1322-93-6 EC: 939-368-0 01-21199699 54-XXXX	  3.1/4/Inhal Acute Tox. 4 H332  3.3/1 Eye Dam. 1 H318  3.1/4/Oral Acute Tox. 4 H302  3.8/3 STOT SE 3 H335
>= 1% - < 3%	(+/-) 2-(2,4-dichlorophenyl)-3-(1 H -1,2,4-triazol-1-yl)propyl-1,1,2,2-tetrafluoroethyl ether	Index number: 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

**SECTION 4: First aid measures**

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

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 e abbondantemente con acqua e then consult an ophthalmologist immediately.

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

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**

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- 5.1. Extinguishing media  
Suitable extinguishing media:  
Water.  
Carbon dioxide (CO<sub>2</sub>).  
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 CO<sub>x</sub>, NO<sub>x</sub>, HCl and HF.  
Burning produces heavy smoke.
- 5.3. Advice for firefighters  
Use suitable 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.

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#### 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

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#### 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.  
Contaminated 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

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#### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters  
No occupational exposure limit available

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DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Not needed for normal use.

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:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

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**SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	
Appearance and colour:	Powder, light brown	--	--
Odour:	Characteristic	--	--
Odour threshold:		--	--
pH:	Approx. 6,6 (suspension 1% in water)	--	--
Melting point / freezing point:	114.5 °C (referred to sulfur)	--	--
Initial boiling point and boiling range:	114.5 °C (referred to <i>sulfur</i> ); 6 °C (referred to <i>tetraconazole</i> )	--	--
Flash point:	> 200 °C	--	--
Evaporation rate:	Not applicable	--	--
Solid/gas flammability:	Not available	--	--
Upper/lower flammability or explosive limits:	Not available	--	--
Vapour pressure:	Not relevant	--	--
Vapour density:	Not relevant	--	--
Relative density:	255-305 g/l	--	--
Solubility in water:	It gives suspension	--	--

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Solubility in oil:	It gives suspension	--	--
Partition coefficient (n-octanol/water):	Log Pow=3.56 (at 20 °C) (referred to <i>tetraconazole</i> )	OECD 107, EEC A8	--
Auto-ignition temperature:	545 ± 15 °C (referred to <i>tetraconazole</i> )	--	--
Decomposition temperature:	Not available	--	--
Viscosity:	Not relevant	--	--
Explosive properties:	Not explosive	--	--
Oxidizing properties:	Not oxidizing	--	--

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  
 Toxicological information of the mixture:  
 N.A.

Informazioni tossicologiche riguardanti le principali sostanze presenti nella miscela:

Data referred to the mixture:  
 Acute toxicity:  
 LD50 (oral) > 2000 mg/kg (rat)  
 LD50 (dermal) > 2000 mg/kg (rat)

Irritating power:  
 Not irritant to eyes

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Data referred to *sulfur*:

Acute toxicity:  
DL50, oral (rat) > 5000 mg/kg

Irritating power:  
Irritating to skin

Data referred to *tetraconazole*:

Acute toxicity:  
LD50 (oral) (OECD 401, EEC B.1):  
1248 mg/kg (rat, male)  
1031 mg/kg (rat, female)  
LD50 (dermal) (OECD 402):  
> 2000 mg/kg (rabbit)  
LC50 (4h) (inhalation) (OECD 403):  
> 3.66 mg/l air (rat), max obtainable concentration)

Irritating power:  
Skin: Not irritant (rabbit) (OECD 404)  
Eyes: Not irritant (rabbit) (OECD 405)

Sensitization:  
Skin: not sensitizing agent  
(OECD 406, US EPA 81-6, Guinea Pig, Buehler test; OECD 406, EEC B.6 - Guinea Pig, Maximisation test)

Chronic toxicity/carcinogenic effects(OECD 451):  
No carcinogenic effect

Mutagenic effects (OECD 474):  
No mutagenic effect, in test (*in vivo/in vitro*).

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

Reproduction (OECD 416):  
No reprotoxic

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- 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.

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**SECTION 12: Ecological information**

12.1. Toxicity

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

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Fish –

Tossicità acuta/cronica (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

Invertebrates –

Acute/chronic toxicity (OECD 202):

Daphnia magna,

EC50 imm. (48 h): 3.0 mg/L; NOEC (21 g): 0.44 mg/l

Algae-

Acute/chronic toxicity (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

12.2 Persistence and degradability

Data referred to *tetraconazole*:

Stable to hydrolysis and not expected to be degraded by photolysis in water.

Not readily biodegradable

Data referred to *sulfur*:

Not available

12.3 Bioaccumulative potential

Data referred to *tetraconazole*:

BCF = 35.7 (whole fish)

Data referred to *sulfur*:

Not available

12.4 Mobility in soil

Data referred to *tetraconazole*:

Koc between 531 e 1922

Data referred to *sulfur*:

Not available

12.5 Results of PBT and vPvB assessment

No vPvB and/or PBT in the mixture.

12.6 Other adverse effects

None

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**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.

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**SECTION 14: Transport information**

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

Not applicable

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- 14.3. Transport hazard class(es)  
Not applicable
- 14.4. Packing group  
Not applicable
- 14.5. Environmental hazards  
Not applicable
- 14.6. Special precautions for user  
Not applicable
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code  
Not applicable

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**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)

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):

N.A.

- 15.2. Chemical safety assessment  
No

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**SECTION 16: Other information**

H statements in section 3:

- H315 Causes skin irritation.  
H332 Harmful if inhaled.  
H318 Causes serious eye damage.  
H302 Harmful if swallowed.  
H335 May cause respiratory irritation.  
H411 Toxic to aquatic life with long lasting effects.

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



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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.