



Safety Data Sheet dated 08/05/2020, version 4

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

1.1. Product identifier

Mixture identification:

Trade name: EMERALD NRG

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

QSE Department (Office local hours: 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 inhaled.
-  Warning, Acute Tox. 4, Harmful if swallowed.
-  Warning, Skin Sens. 1, May cause an allergic skin reaction.
-  Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Symbols:



Warning

Hazard statements:

H302+H332 Harmful if swallowed or if inhaled

H317 May cause an allergic skin reaction.

H410 Very 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.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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P391 Collect spillage.

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

Special Provisions:

It contains triazine derivative: it may give an allergic reaction

2.3. Other hazards

It does not contain vPvB and/or PBT substances

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 EEC directive 67/548 and CLP regulation and related classification:

7% - 10% azoxystrobin

Index number: 607-256-00-X, CAS: 131860-33-8



3.1/3/Inhal Acute Tox. 3 H331



4.1/A1 Aquatic Acute 1 H400



4.1/C1 Aquatic Chronic 1 H410

7% - 10% (+/-) 2-(2,4-dichlorophenyl)-3-(1 H -1,2,4-triazol-1-yl)propyl-1,1,2,2-tetrafluoroethylether;
tetraconazole

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

3% - 5% Ethoxylated laurylic fatty

CAS: 9002-92-0



3.1/4/Oral Acute Tox. 4 H302



3.3/1 Eye Dam. 1 H318



4.1/A1 Aquatic Acute 1 H400

0.1% - 0.25% 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol;
1,3,5-tris(2-hydroxyethyl)hexahydro-1,3,5-triazine

Index number: 613-114-00-6, CAS: 4719-04-4, EC: 225-208-0



3.4.2/1-1A-1B Skin Sens. 1, 1A, 1B H317



3.1/4/Oral Acute Tox. 4 H302

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.

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 induce vomiting.

Give nothing to eat or drink.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

After contact with skin, wash immediately with soap and plenty of water.

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.

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

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

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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.
Use localized ventilation system.
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

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
No occupational exposure limit available
- 8.2. Exposure controls
Eye protection:
Not needed for normal use. Anyway, operate according good working practices.
- 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

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties
- | | |
|---|---|
| Appearance and colour: | Brownish liquid |
| Odour: | Not available |
| Odour threshold: | Not available |
| pH: | 6.12 (1% water solution, at 25 °C) |
| Melting point / freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Solid/gas flammability: | Not available |
| Upper/lower flammability or explosive limits: | Not available |
| Vapour density: | Not available |
| Flash point: | > 100 °C at 759 mmHg Pensky-martens c.c.
(referred to <i>azoxystrobine</i>)
63 °C (tazza chiusa) (ISO 3680)
(referred to <i>tetraconazole</i>) |
| Evaporation rate: | Not available |

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Vapour pressure:	Not available
Relative density:	Approx. 1.07, 20 °C kg/l
Solubility in water:	Not available
Lipid solubility:	Not available
Partition coefficient (n-octanol/water):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available
Explosive properties:	Not explosive
Oxidizing properties:	Not oxidizing

9.2 Other information

Miscibility:	Not available
Fat Solubility:	Not available
Conductivity:	Not available
Substance Groups relevant properties	Not available

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.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Data referred to the *mixture*:

Acute toxicity:

LD50 (oral): > 300 mg/kg and < 5000 mg/kg

LD50 (dermal): > 4000 mg/kg (rat)

LC50 (4h) (inhalation):

> 2.26 mg/L (rat)

Irritating power:

Skin: not irritant.

Eyes: not irritant.

Sensitization:

Not sensitizing agent (rabbit)

Data referred to

tetraconazole:

(+/-) 2-(2,4-dichlorophenyl)-3-(1 H -1,2,4-triazol-1-yl)propyl-1,1,2,2-tetrafluoroethylether

- CAS: 112281-77-3

Chronic toxicity/carcinogenic effects (OECD 451):

No carcinogenic effect

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Mutagenic effects (OECD 474):
No carcinogenic effect (*in vivo* che *in vitro* tests)

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

Reproductive toxicity (OECD 416):
Not genotoxic

Data referred to:
azoxystrobine (ISO
Index: 607-256-00-X, CAS: 131860-33-8

Chronic toxicity/carcinogenic effects:
No carcinogenic effect

Mutagenic effects:
No carcinogenic effect (*in vivo* che *in vitro* tests)

Teratogenic effects:
No teratogenic effect

If not differently specified, the information required in Regulation 453/2010/EC 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.

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-

danio rerio, LC50 (96h): 6.7 mg/L

Daphnia-

Daphnia similis, LC50 (48h): 0.57 mg/L

Algae-

Pseudokirchneriella subcapitata:

EC50 (72h): 5.32 mg/L

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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 *azoxystrobine*:

Expected to be degradable

Stability in water: degradation half life: 214 days

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The substance is stable in water
Stability in soil: degradation half life: 80 days
Not persistent in soil

12.3 Bioaccumulative potential

Data referred to *tetraconazole*:
BCF = 35.7 (whole fish)
Data referred to *azoxystrobine*:
No bioaccumulative potential

12.4 Mobility in soil

Data referred to *tetraconazole*:
Koc between tra 531 e 1922
Data referred to *azoxystrobine*:
It has from low to very high mobility in soil

12.5 Results of PBT and vPvB assessment

vPvB: None
PBT: None

12.6 Other adverse effects

None

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.

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 and azoxystrobine)

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

Rail (RID): 9
IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (tetraconazole and azoxystrobine)
IMDG-EMS: F-A, S-F

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

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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. 1179/2016 (ATP 9 CLP)
Regulation (EU) n. 776/2017 (ATP 10 CLP)
Regulation (EU) 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):
To be evaluated according to stock quantity

15.2. Chemical safety assessment
Not requested.

SECTION 16: Other information

H-statements in section 3:

H331 Toxic if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H302 Harmful if swallowed.
H332 Harmful if inhaled.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.

Modified paragraphs with reference to the previous revision:
SECTION 15: Regulatory information

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

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

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CCNL - Appendix 1

Insert further consulted bibliography

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.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
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.