



FOLIAREL[®] FLUSSIG(150 gr/l)

According to Attachment II of Reg. CE n° 1907/2006 (REACH)



Safety Data Sheet

Emission : April 2005

Revision n. 7 : Sept 2009

1 IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1 Identification of substance

- Commercial Name : FOLIAREL[®] FLUSSIG-150gr/l
- Chemical Formula : $C_2H_8BNO_3$
- Chemical Name/synonyms :
BOROETHANOLAMMINE,
MONOETHANOLAMINE neutralized with Boric Acid, Foliarel Liquid
- Chemical Family : Inorganic Borates
- REACH registry N° : n.d.
- CAS registry N° : 10377-81-8
- EINECS N° : 233-829-3

1.2 Use of the substance

- Fertiliser

1.3 Company identification

SOCIETA' CHIMICA LARDERELLO spa
Via G. Fara n. 28 - 24124 Milano, ITALY ;
Tel. +39-02-677168.1 Fax +39-02-677168.20
<http://www.scl.it> - <http://www.fertiglobal.it>
e-mail : bianchi@scl.it

1.4 Emergency phone numbers :

- Centro Antiveneni : +39-0554277238
(SERVIZIO AUTONOMO DI TOSSICOLOGIA USL 10
D/UNIVERSITÀ DEGLI STUDI DI FIRENZE
VIALE PIERACCINI 17 FIRENZE)
- SCL spa : +39-02-677168.21

2 HAZARDS IDENTIFICATION

2.1 Hazard classification : NOT HAZARDOUS

2.2 Risk phrases : n.a.

2.3 Health hazards :

- Eyes** : may be slightly irritant to the eyes ; can cause redness
- Skin** : Do not cause skin irritation

- Inhalation** : improbable , the substance is liquid. Accidental inhalation may cause light irritation to the first respiratory system .
- Ingestion** : small amounts (teaspoon) swallowed accidentally are not likely to cause effects. Swallowing amounts larger than that may cause gastrointestinal symptoms

2.4 Pericoli per l'ambiente: vedi sez . 12

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Conc. (%)	EINECS N°	CAS N°	Symbol	R phrases
BOROETHANOLAMMINE	100	233-829-3*	10377-81-8	-	-

4 FIRST AID MEASURES

4.1 General Informations: usually no assistance by a doctor is required .

4.2 Inhalation: improbable , the substance is liquid. If symptoms such as nose or throat irritation are observed, remove person to fresh air .

4.3 Eye contact : If irritation appears use eye wash fountain or fresh water to clean the eye.

4.4 Ingestion : Wash with abundant running water. Swallowing small quantities (one teaspoon) will cause no harm to healthy adults. If larger amounts are swallowed, give two glasses of water to drink and seek medical attention.

4.5 Skin contact : No treatment necessary because non-irritating .If the irritation appears wash with soap and abundant water for a number of minutes .

*For one EINECS number you can have more than one CAS number .



5 FIREFIGHTING MEASURES

5.1 Fire: substance is not flammable, combustible or explosive

5.2 Appropriate extinguishing means and procedures: Any fire extinguishing media may be used on nearby fires. To do not damage the substance and pollute the environment, water is to be avoided where possible.

5.3 Forbidden extinguishing means: All means can be used.

5.4 Fire derived risks::

5.4.1 *To the product itself* : N.A.

5.4.2. *Products of combustion:* N.D.

5.4.3. *From fumes:* Decomposition of certain components develops toxic gas (NO_x; NH₃)

5.5 Fire-fighting equipment: : Gas masks must protect from gases as of 5.4.3.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions : Wear goggles (class P1) and glasses when exposure is prolonged and high is concentration.

6.2 Environmental precautions : Confine spillage to avoid contamination of water bodies. Do not disperse waste in the environment or in drain.

6.3 Methods for cleaning: Collect product into a suitable receptacle and dispose of as in section 13; wash the area with water, taking the appropriate precautions against pollution. Not to unload residuals in drain.

7 HANDLING AND STORAGE

7.1 Handling : Use the product in accordance with good working practice, avoiding dispersal into the environment. Handle the product in a well-ventilated and well-aerated location. Carefully rinse hands after handling and before eating, drinking or smoking.

7.2 Storage : In aerated place, avoiding his cooling or heating in sudden way.

To avoid product downgrade :

- to limit air humidity
- to protect from light
- to keep at a temperature between 20°C and 25°C; keep always under 50°C and over 5°C.

8 EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Exposure limit values:

- TLV – TWA: 10 mg/m³ (recommended by SCL)
- DNEL : N.D.
- PNEC : N.D.

8.2 Exposure controls

Keep concentrations below exposure limits (See 8.1).

8.2.1 Occupational exposure controls:

- (a) **Respiratory protection :** Wear protective masks for long exposures and high concentration levels
- (b) **Hand protection :** Wear protective gloves. Do not eat or smoke while handling the product. Wash hands before eating and at the end of the work shift.

(c) **Eye protection :** Wear security glasses for long exposures and high concentration levels

(d) **Skin protection :** Wear conventional working clothes.

8.2.2. Environmental exposure controls

Respect all standards and laws concerning emission limits in the atmosphere and waters (see 16.4)



9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information

- **Appearance:** Slightly opalescent liquid ;you can have on request by the customer different colors : Yellow, yellowish or green
- **Odour:** odourless

9.2 Important health, safety and environmental informations

pH at 20°C: 7,6

1% concentration : 8,7

10% concentration : 8,5

- Boiling point: :> 108°C
- Flammability point: N.A.

Flammability:

- ☒ Not flammable
- ☒ Not combustible
- ☐ Combustible
- ☐ Flammable
- ☐ Highly flammable
- ☐ Extremely flammable
- ☐ Autoflammable

- Explosive properties : N.A.
- Comburent properties:N.A.
- Vapour pressure: Negligible at 20°C
- Density: 1,37 Kg/dm³ (20°C)
- Solubility:
 - Water solubility: totally
- Partition coefficient : n.d.
- Viscosity :
 - At 20°C : 500-700 cPs
 - At 0°C : 3300 cPs
- Evaporation rate :N.A.

9.3 Other Informations

- Frost point: liquid stable to 0 °C
- Does not contain organic solvents

10 STABILITY AND REACTIVITY

The substance is stable in the suggested conditions

10.1 Conditions to avoid : High temperatures and direct contact with fire or heat sources .

10.2 Materials to avoid : Strong base and acids, strong oxidizing agents

10.3 Hazardous decomposition products

During the thermal decomposition , organic unidentified compounds can be formed;

11 TOXICOLOGICAL INFORMATIONS

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This substance may have **slight** health effects on sensitive people, by inhalation and/or contact with eyes and/or ingestion

▪ *Means of exposure :*

ingestion, inhalation and trough not intact skin

▪ *Corrosiveness/Irritant properties:*

slightly irritant to eyes and first respiratory system

▪ *Acute toxicity:*

comparing with similar products you can expect LD50 (rat) >2000 mg/kg

The inhalation of vapors causes irritation of the inferior and advanced respiratory system with cough and respiratory difficulty; at elevated concentrations may cause also edema pulmonary.

The contact with eyes can provoke irritation; the symptoms can include reddening, edema and pain .

▪ *Chronic toxicity :*

Extremely rare chronic poisonings can cause gastrointestinal symptoms

- *Sensitising properties :* No evidence found
- *Carcinogenicity :* No evidence found
- *Mutagenicity :* No evidence found
- *Reproductive toxicity:* No evidence found



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COMPANY WITH INTEGRATED
MANAGEMENT SYSTEM
CERTIFIED BY DNV
ISO 9001/2000
ISO 14001

12 ECOLOGICAL INFORMATION

12.1 Eco-toxicity

- *Phytotoxicity*: Excessive rate could be phytotoxic. Avoid environmental contamination
- *Water toxicity*: Excessive rate could cause increasing of N dissolved that can be dangerous for aquatic species
- *Soil behaviour*: Nutrient for species vegetables . Consult technical sheet

12.2 Mobility : N.D.

12.3 Persistence and degradability : not easily biodegradable .

12.4 Bioaccumulation potential : N.D.

12.5 PBT evaluation results : N.D.

12.6 Other adverse effects : N.D.

13 DISPOSAL CONSIDERATIONS

13.1 Disposal of the substance :

In accordance with applicable local regulations .Not disperse in city drain or water course

13.2 Contaminated packaging

Special waste to be taken to authorized disposal .

14 TRANSPORT INFORMATION

14.1 Classification: N.A.

15 REGULATORY INFORMATION

15.1 Chemical Safety Evaluation :

in progress according REACH timing and procedures.

15.2 Classification : NOT HAZARDOUS

15.3 Labelling :

Società Chimica Larderello spa

- Headquarter: : Via G. Fara n. 28

20124 Milano Tel. 02/67716820

- Plant :Piazza Leopolda n. 2

56044 Larderello (PI) Italia Tel. 0588/68811



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16 OTHER INFORMATIONS

16.1 Meaning of assigned “R” sentences : N.A.

16.2 Meaning of assigned “S” sentences : N.A.

16.3 Training advice : Nothing specific .

16.4 GENERAL BIBLIOGRAPHY

- Reg. CE n° 1907/2006 (REACH) and following amendments
- Dir. 1999/45/CE and following amendments;
- Dir. 67/548/CEE and following amendments ;
- The Merck Index.;
- Handling Chemical Safety;
- Niosh (Registry of Toxic Effects of Chemical Substances);
- ELINCS (<http://ecb.jrc.it/existing-chemicals/>)
- Software Epy-plus ; ELINCS
- ACGIH TLV & IBE
- (Italian law - D.Lgs. 626/94)

Note:

This Safety Data Sheet is in conformance with Attachment II of Reg. CE n° 1907/2006 (REACH)

16.5 Italian regulations :

- D.Lgs.152/06 Testo Unico Ambiente and following amendments.
- Dlg. 28/07/04 n° 260

16.6 Sanitation controls :

- tabella D.P.R.303/56 and following amendments : substance ingredients are not included in the Table .Anyway clinical cchecks are suggested according the results of Chemical risk evaluation (D.Lgs. 626/94)

16.7 Obligatory Insurance

- D.P.R.1124/65 and following amendments: substance ingredients are not included in that Table of industrial professional sickness.

16.8 Company Responsible service :

HSE & Quality Director

Tel. +39-0588-68806 -0267716821

Fax +39-0588-68860

HSE & Qualità Departement

Tel. +39-0588-68802; Fax +39-0588-68860

16.9 ABBREVIATIONS:

- N.A. : Non applicable
- N.D. :Not determined; Not available

All informations on this SAFETY DATA SHEET are, to the best of our knowledge , correct, but should not be considered exhaustive. It is the user's responsibility to adopt and apply this data as appropriate.

Società Chimica Larderello spa assumes no responsibility for damages to persons or goods resulting from the incorrect handling of this product.