SOLFER Iron EDDHA 6%

MATERIAL SECURITY DATA SHEET

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

1.1. Product identifier

Mixture identification: Trade name: SOLFER

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use:Agriculture: fertilizing agent

1.3. Details of the supplier of the safety data sheet

Company: Supplier : Bio Organic Limited
P.O.Box 29024 – 00100; Nairobi; Kenya

e-mail : info@bioorganic.co.ke

1.4 : Origin : European Union

1.5. Emergency telephone number :Poison Centers in Europe : ttp://www.eapcct.org/index.php?page=links

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification:The product is not dangerous according to European Directive 67/548/CEE and according to the Regulation (EC) No. 1272/2008.

Effects to the environment: Not dangerous.

2.2. Label elements

Danger pictogram: Not applicable

Advising wording:Not applicable

Danger indication:Not applicable

Caution advise:P102 + P270

2.3. Other dangers:No data available.

SECTION 3: Composition/information on ingredients

3.1 Substance / Preparation :UVCB Substance

3.2 Chemical name:Acetic acid, oxo-, sodium salt, reaction products with ethylenediamine and phenol, Iron sodium salts

3.3 CAS Nº: 84539-55-9

3.4 EC Nº :283-044-5

3.5 DSD Classification:

3.6 CLP Classification:

SECTION 4: First aid measures

4.1. First aid description: In case of inhalation: Take the person away from the contaminated zone, carrying him / her to an aired zone. Get medical attention.

In case of skin contact: Wash immediately with soap and rinse with plenty of water.

In case of eyes contact: Wash immediately with plenty of water, also below eyelids, during at least 15 minutes. Get medical assistance immediately.

In case of ingestion: Wash the mouth immediately with water and drink a lot.
4.2. Main symptoms and effects, acute and later.
Inhalation: Adverse effects are not foreseen.
Skin contact: Adverse effects are not foreseen.
Eyes contact: Adverse effects are not foreseen.
Ingestion: Adverse effects are not foreseen.
4.3. Indication of any medical attention and special treatments to be applied immediately
If any sympthom is persisting, ask the doctor.

SECTION 5: Firefighting measures

5.1. Extintion means Right extintion means: Use suitale extintion means as : water, dry powder, carbon dioxide, foam.
Extintion means to avoid :None
5.2. Specific danger derived from the substance or mixture :The product doesn´t let off toxic gases and is not flammable.
5.3. Protection gear for the staff of fight against fire : It doesn´t need special equipment.

SECTION 6: Accidental release measures

6.1. Individual precautions, protection equipment and emergency procedures :Avoid contact with eye and skin. Avoid dust breathe. Use individual protection equipment. Ensure an adequate ventilation.
See also Section 8.
6.2. Environment precautions :Avoid that the product reach the surface water or the sewer net.
6.3. Clean and holding material and methods :Collect the product by mechanical means and store in appropiate containers for its elimination. Label the containers and proceed regarding the local authorities rules. Clean the rest with some water. Avoid the contamination of the natural water sources.
6.4. Reference to other sections
Consult Section 8 relative to suitable protection equipments.
Consult Section 13 relative to the treatment of residues.

SECTION 7: Handling and storage

7.1. Precautions for  tion 8.
General advise: Apply the current GP (Good Practices) concerning industrial hygiene and safety.
Avoid contact with eyes, skin and clothes. Avoid dust formation.
Keep the product in its original packing.
7.2. Safety storage conditions, including possible incompatibilities.
Store far from the materials listed in Section 10.
Keep the packing closed in a dry, fresh and well ventilated place.
Keep away of non authorized persons.
Keep away of food, drinks and animal feed.
7.3. Final specific use : Agriculture: Fertilizer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNELs: *DNEL for workers:* 0,8 mg/kg of body weight / day (skin exposition), 1,8 mg/m³ (inhalation)
*DNEL forn population in general:*0,417 mg/kg of body weight / day (skin exposition), 0,435 mg/m³ (inhalation)., 0,125 mg/kg of body weight / day (oral exposition)
Predicted non effect concentration (PNEC): *PNEC water (water):* 2,40 mg/L, *PNEC water (sea water):* 0,24 mg/L, *PNEC water (intermitent emissions):* 1,20 mg/L, *PNEC sediment (water):* 1,90 mg/kg
PNEC sediment (sea water): 0,19 mg/kg, *PNEC soil*: 1,60 mg/kg, *PNEC residual water treatment plant:* 45,00 mg/L., *PNEC oral:* 1,1 mg/kg of food
8.2. Exposure controls
8.2.1. Suitable technical controls : See also Section 7.
Ensure of an adequate ventilation. Use only in area with adequate extraction and ventilation.
8.2.2. Individual protection measures
Respiratory protection: In case on insufficient ventilation, use adequate respiratory (breathing) equipments. Respirator with filter type A.
Hands protection: Protective gloves fulfilling norm EN 374. Rubber gloves.
Eyes protection: Protective glasses with lateral closing as described in norm EN 166.
Body and skin protection: While handling the product, use adequate protection clothes
Hygiene measures: Handle the product according to the GP of industrial hygiene and safety. Clean hands before to stop and immediately after to handle the product. Do not eat, drink or smoke when handling the product.
8.2.3. Environmental Exposure Controls : Avoid the product to reach the surface water or the sewer network.

SECTION 9: Physical and chemical properties

Aspect: micro-granulated powder, free of refined
Color black – reddish
Odor little intense, characteristic
pH (1%) 7.5 - 9.5
Melting point : It decomposes without melting, at a temperature higher than 200 º C
Boiling point: It decomposes before melting.
Inflammation point: n.a.
Self ignition temperature: 331ºC a 1013.25 hPa
Inflammability It is not inflammable.
Explosive properties: It is not explosive
Oxidizing properties: It is not oxidant
Vapor pressure: < 1E-6hPa a 25ºC
Viscosity: n.a.
Apparent density 450 – 650 Kg/m3
Solubility in water Theoretical 120 g/l ; Practical (CoA) 60 g/l
n-octanol/water partition coeficient (log Pow): < -4,2 a 23ºC

SECTION 10: Stability and reactivity

10.1. Reactivity :No data available.

10.2. Chemical stability : The product is fully stable at usual environmental conditions and at usual temperature and pressure conditions foreseen when store or manipulate.
10.3. Dangerous reactions possibility :None under usual conditions of use.
10.4. Conditions to avoid: Keep away from flame, hot surfaces and ignition sources.
10.5. Incompatibility materials : Avoid oxidizing agents. Dangerous products of decomposition
By pirolisis toxic fumes as carbon oxydes (CO, CO2) and nitrogen oxydes (NOx) can be produced.

SECTION 11: Toxicological information

11.1. Toxicological effects information
Acute Toxicity*:* The product does not show any acute toxic effect:
DL50 (oral, rat): > 2000 mg/kg of body weight (according to OECD 401 Guideline)
CL50 (inhalation, rat): > 4200 mg/m3 air (according to OECD 403 Guideline)
DL50 (dermal, rat): > 2000 mg/kg of body weight (according to OECD 402 Guideline)
Skin corrosion/irritation: Not irritant (tested on rabbit according to OECD 404 Guideline).
Severe ocular lesions / irritation: Not irritant (tested on rabbit according OECD 405 Guideline).
Skin sensitization: No sensitizer (Local Lymph Node Assay (LLNA) tested on rat according to OECD 429 Guideline).
Chronic Toxicity: Nor carcinogenic, nor mutagenic, nor teratogenic effect has been detected in animal tests.

SECTION 12: Ecological information

12.1.Toxicity
Aquatic Toxicity: The product is not toxic for fish (tested according OECD 203 Guideline and the method EU C.1):*CL50* > 120 mg/L,*NOEC* 120 mg/L
The product is not toxic for aquatic invertebrates (tested according to OECD 202 Guideline and the method EU C.2): *CL50* > 120 mg/L
The product is not toxic for aquatic algae (tested according OECD 201 Guideline and the method EU C.3): *CL50* > 294 mg/L, *NOEC* 8.2 mg/L
The product is not toxic for aquatic microorganisms (tested according OECD 209 Guideline and the method EU C.11): *CL50* > 1000 mg/L, *NOEC* 450 mg/L
Toxicity on sediments: No data available.
Terrestrial Toxicity: -The product is not toxic for birds:*CL50* > 6000 mg/kg de peso corporal
12.2. Persistency and degradability: The product is biodegradable
12.3. Bioaccumulation potential: The product is not bio accumulable (Log Pow < -4,2).
12.4. Mobility on soil :No data available.
12.5. PBT y vPvB results evaluation :The product is not persistent, nor bioaccumalable, nor toxic (PBT).
12.6. Other adverse effects :No data available.

SECTION 13: Disposal considerations: Destroy the product according to the local regulations.

SECTION 14: Transport information

Road and Railway - RID/ADR : Not classified
Sea freight – IMDG Code :Not classified
Aerial Transport - ICAO/IATA :Not classified

SECTION 15: Regulatory information

15.1. Regulation and legislation in the field of safety, health and environment, specific for the substance or mixture

Classification: The product is not dangerous according to European Directive 67/548/CEE, and according to European Regulation (EC) No. 1272/2008.

Regulations:- Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labeling of dangerous substances.

- Directive 1999/45/CE concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labeling of dangerous preparations.
- Directive 91/689/CEE concerning hazardous waste.
- Regulation (EC) No. 1907/2006, concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH),
- Regulation (EC) No. 1272/2008, on classification, labeling and packaging of substances and mixtures
- Regulation (EU) No. 453/2010, amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

15.2. Safety chemical evaluation

The safety chemical evaluation for this product has been performed.

SECTION 16: Other 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

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 document supersedes any previous version.

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.
N.A.: Not available
N.D.: Not determined
H/P = R/S phrases list, danger warnings, safety indications, and caution advice:
Phrase P: P102: Keep away of children reach
P270: Do not eat, drink and smoke while using the product
The content and format of this safety data sheet are in line with the Directives of the European Commission 1999/45/EC, 67/548/EC, 1272/2008/EC and with the European Commission Regulation 1907/2006/CE (REACH) and later modifications.

ALWAYS FOLL OWN PRODUCT LABEL DIRECTIONS

This product safety data sheet is offered solely for your information, consideration, and investigation.
SOLFERT is a registred trade mark
EABCL guarantees product's composition and content in its original packing. Users and handlers of this product should assume the risk derived from factors not depending on the manufacturer. The manufacturer doesn't assume consequences resulting from storage, using or handling not in conformity with our recommendations.

MSDS Issued Date : Feb, 2015
MSDS Date Revised : Feb, 2020

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