



MATERIAL SAFETY DATA SHEET

IRON CHELATE

Date Issued: June 2017.

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Revision No.: 3

Print Date: 20/11/18

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: IRON CHELATE

SUPPLIER: EFEKTO

PO BOX 652147

BENMORE

2010

TEL No. 0861 333 586 386 office hours

EMERGENCY TELEPHONE NUMBERS:

SPILLAGES: 083 1233 911

POISONINGS: 086 199 9071

Poisons Information Helpline 0861 555 777 (all hours)

Griffon Poison Centre 082 446 8946

Use: For the treatment of iron deficiency in Vegetables, Flowers, Fruit and Shrubs in the home garden.

2. HAZARDS IDENTIFICATION

- Irritant.

Likely routes of exposure:

Skin and eye contact, ingestion and inhalation.

Skin Contact: Slight irritant.

Eye Contact: Slight eye irritant. May cause redness.

Ingestion:

Small quantities are unlikely to cause toxic effect. Large quantities may give rise to gastro-intestinal disorders; stomach cramps and/or nausea..

Inhalation: Avoid inhalation of dust. Inhalation to dust may cause respiratory irritation.

Long term effects: No adverse effects are known.

Fire and thermal decomposition products:

Inhalation of decomposition gases can cause irritation and corrosive effects on the respiratory system.

Symbol: None

Risk phrases: R22, R36/38

UN No.: Not regulated.

3. COMPOSITION/INFORMATION ON INGREDIENTS



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Active ingredients:

Active ingredients.	CAS No.:	EC No.:
Iron monosodium –ethylene diaminetetraacetate 13 % Iron as EDTA chelate[130 g/kg]	15708-41-5	239-802-2

Components: Soluble metal complex of iron monosodium -ethylenediaminetetraacetate

Chemical Name: metal complex of iron monosodium –ethylenediaminetetraacetate[FeNaEDTA]

Chemical Family: Trace element[organometallic]

Chemical Formula: $C_{10}H_{12}FeN_2O_8.Na$

NIOSH/RTECS No.: Not available.

4. FIRST-AID MEASURES

Iron chelate is basically a harmless product when handled correctly.

Skin Contact:

Wash the affected area thoroughly with soap and water.

Eye Contact:

Flush/irrigate eyes immediately with copious amounts of water for at least 15 minutes.

Obtain medical attention if eye irritation persists.

Ingestion:

Do not induce vomiting.

Give water or milk to drink. Never give anything by mouth to an unconscious person.

Obtain medical attention if more than a small quantity has been swallowed or when relevant symptoms occur after swallowing.

Inhalation:

Remove from source of exposure to fresh air.

Obtain medical advice if ill effects occur.

Advice to physician: No antidote. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing agents:

Extinguish small fires with water spray or fog. Product may smoulder if ignited.

Fire fighting:

Remove containers from fire area if possible. Contain fire control agents for later disposal. Use a recommended extinguishing agent. Water can be used to cool unaffected containers. Avoid inhaling hazardous vapours (oxides of carbon and nitrogen). Keep upwind and contain any liquid runoff.



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Personal protective equipment:

Fire may produce irritating or poisonous vapours, mists or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Any spillage of Iron chelate should be swept up and placed in a clean, labelled open container for safe disposal. Depending on the degree and nature of contamination, dispose of by use as a fertilizer or to an authorised waste facility.

Take care to avoid the contamination of watercourses and drains and inform the appropriate authority in case of accidental contamination of watercourses.

7. HANDLING AND STORAGE

Handling:

Avoid dust generation. Avoid contact with eyes, skin and clothing. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet

Storage:

Keep containers tightly closed, in a well-ventilated place. Store away from food, drink and animal feeding stuffs. Keep away from children and unauthorized adults. Adhere to local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits:

No specific official limit.

Precautionary and engineering measures:

Avoid inhalation and contact with the skin and eyes. Provide ventilation where necessary.

Personal Protection:

Wear suitable impervious gloves and chemical goggles or full-face shield, when handling the product over long periods.

After handling product, wash hands and observe good hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Powder.

Colour: Green

Odour: Slight.

Decomposition Temperature: 150 °C

Explosive properties: No data.

Bulk Density: 0.65 g/ml



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pH: 4.5[1% sol].
Solubility at 20°C (g/L): Water soluble.

10. STABILITY AND REACTIVITY

Storage stability:

Store in plastic or stainless steel container in a cool, well-ventilated, dry place. Stable for up to 2 years under normal dry, cool, shaded warehouse conditions.

Incompatibility:

Avoid contact with aluminum, copper, copper alloys, nickel and zinc. Incompatible with strong oxidants and alkalines.

Hazardous decomposition products:

Oxides of iron. Oxides of nitrogen. Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Oral LD50 (rat): >5000 mg/kg[similar product]

Acute dermal LD₅₀: No data.

Acute inhalation LC₅₀: No information.

Acute skin irritation: Slight irritant, especially from prolonged exposure.

Acute eye irritation: Slight irritant.

Carcinogenicity/ Teratogenicity/ Mutagenicity:

None known.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGY:

NO INFORMATION AVAILABLE.

13. DISPOSAL CONSIDERATIONS

Disposal:

Depending on degree and nature of contamination, dispose of by use as trace element by spraying onto pants or send to an authorized waste facility.

Package product wastes:

Emptied containers retain vapour and product residues. Observe all labeled safeguards until container is destroyed. Combustible containers should be disposed of in pesticide incinerators.

14. TRANSPORT INFORMATION



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UN No.: Not regulated.

15. REGULATORY INFORMATION

Symbol: None

Risk phrases:

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

Safety phrases:

S 1/2 Keep locked up and out of reach of children.

S24/25 Avoid contact with skin and eyes.

National legislation: In accordance with the South African National Road Traffic Act, 1996 (Act 93 of 1996), the Fire Brigade Act, 1987 (Act 99 of 1987) and the Occupational Health and Safety Act, 1993 (Act. No. 85 of 1993)

16. OTHER INFORMATION

Compiled by: Danie Fourie

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

REFERENCES

- European Fertilizer Manufacturers association, "Guidance for Compilation of safety Data Sheets for Fertilizer Materials", Ammonium Sulphate.
 - Sequestar 13,2% Iron Chelate MSDS.
 - ADR 2011, Part 3.
 - IMDG Code, 2005 Edition, Vol. 2.
 - IATA Dangerous goods regulations, Effective 1 January 2011
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END OF MSDS.