

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

1.1. Product identifier

Product form : Substance
 Trade name : Fe-EDTA 13% - K
 IUPAC name : potassium;2-[2-[bis(carboxylatomethyl)amino]ethyl-(carboxylatomethyl)amino]acetate;iron(3+)
 EC no : 259-411-0
 CAS No : 54959-35-2
 REACH registration No : 01-2120085738-40
 Product code : 100.132.000
 Formula : C10H12FeKN2O8

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

1.2.1. Relevant identified uses

Main use category : Industrial use,Professional use
 Function or use category : Fertilisers

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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 Houtwijk 28
 8251 GD Dronten - The Netherlands
 T +31 (0)321 336 730 - F +31 (0)0321 337 802
Algemeen@biron.nl - www.biron.nl

1.4. Emergency telephone number

Emergency number : National Poisons Information Service
 +44 870 600 6266
 worldwide: <http://www.who.int/ipcs/poisons/centre/directory/en>

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

2.2. Label elements

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type : Mono-constituent
 Name : Fe-EDTA K
 CAS No : 54959-35-2
 EC no : 259-411-0

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|-----------|---|-----|---|
| Fe-EDTA K | (CAS no) 54959-35-2 (EC no) 259-411-0 (REACH-no) 01-2120085738-40 | 100 | Not classified |

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
- First-aid measures after inhalation : Remove the victim into fresh air. In all cases of doubt, or when symptoms persist, seek medical attention.
- First-aid measures after skin contact : Rinse with water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Immediately rinse with water for a prolonged period while holding the eyelids wide open. Consult an ophthalmologist if irritation persists.
- First-aid measures after ingestion : Give 2-3 glasses of water to drink. Do not give an unconscious person anything to drink. Do not induce vomiting. Move to fresh air. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Making extinguishing agents environment-friendly.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
- Explosion hazard : Not applicable.
- Hazardous decomposition products in case of fire : On burning: release of harmful/irritant gases/vapours. Nitrogen oxides.

5.3. Advice for firefighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
- Firefighting instructions : Exercise caution when fighting any chemical fire. Dilute toxic gases with water spray. Use water moderately and if possible collect or contain it.
- Protection during firefighting : Fire fighters have to wear suited clothing and an independent repertory device (SCBA) that covers the face completely with pressure. Clothing for fire fighters (including helmets, protective boots and gloves) according to European Regulation EN 469, give a basic protection level for an incident with chemicals.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid raising dust. Avoid inhalation of product. Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation.

6.1.1. For non-emergency personnel

- Protective equipment : Wear suitable protective clothing. Concerning personal protective equipment to use, see section 8.
- Emergency procedures : Clear the danger area. Notify police and fire brigade as soon as possible.
- Measures in case of dust release : Dust production: have neighbourhood close doors and windows. In case of dust production: keep upwind.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

6.3. Methods and material for containment and cleaning up

- For containment : Stop leak if safe to do so. Knock down/dilute dust cloud with water spray. Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting.

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Methods for cleaning up : Collect all waste in suitable and labelled containers and dispose according to local legislation. Wash away remainder with plenty of water. Not in groundwater, surfacewater or sewerage. Wash clothing and equipment after handling.

6.4. Reference to other sections

Concerning personal protective equipment to use, see item 8. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Wear personal protective clothing (see chapter 8). Avoid dust formation. Avoid all unnecessary exposure. Do not breathe dust.

Hygiene measures : Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage temperature : -5 - 30 °C

Prohibitions on mixed storage : Keep away from food, drink and animal feeding stuffs.

Storage area : Store in dry, well-ventilated area.

Special rules on packaging : closing. dry. correctly labelled. meet the legal requirements.

Packaging materials : plastics. paper with plastic inner lining.

7.3. Specific end use(s)

Fertilisers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Fe-EDTA 13% - K (54959-35-2) | |
|--|---------------------------|
| DNEL/DMEL (Workers) | |
| Long-term - systemic effects, dermal | 2800 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 3.95 mg/m ³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects, oral | 0.28 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 0.97 mg/m ³ |
| Long-term - systemic effects, dermal | 1400 mg/kg bodyweight/day |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 2.5 mg/l |
| PNEC aqua (marine water) | 0.25 mg/l |
| PNEC aqua (intermittent, freshwater) | 1.009 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 87.175 mg/kg dwt |
| PNEC sediment (marine water) | 8.7175 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 15.92 mg/kg dwt |
| PNEC (STP) | |
| PNEC sewage treatment plant | 64 mg/l |

8.2. Exposure controls

Appropriate engineering controls : Facilities: shower, eye shower. Provide sufficient air exchange and/or exhaust.

Hand protection : Protective gloves

| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
|------|----------|-------------------|----------------|-------------|----------|
| | Latex | 6 (> 480 minutes) | | | EN 374 |

Eye protection : Safety spectacles with side shields

| Type | Use | Characteristics | Standard |
|----------------|-----|-----------------|----------|
| Safety glasses | | | EN 166 |

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- Skin and body protection : Wear suitable protective clothing
- Respiratory protection : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---|
| Physical state | : Solid |
| Appearance | : microgranules. |
| Colour | : light brown. |
| Odour | : Odourless. |
| Odour threshold | : No data available |
| pH | : 6 (5 - 7) |
| pH solution | : 1 % |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : > 225,4 °C |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : Not applicable |
| Auto-ignition temperature | : 362 °C (EU Method A.16) |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : 0.7 |
| Solubility | : Soluble in water. Water: 558.16 g/l 20°C |
| Log Pow | : No data available |
| Log Kow | : -4.6 |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : Product is not explosive. |
| Oxidising properties | : Not oxidizing. |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The substance has low chemical reactivity.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Prevent moisture contact. Avoid high temperatures.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

On burning: release of (highly) toxic gases/vapours. Nitrogen oxides.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Fe-EDTA 13% - K (54959-35-2) | |
|------------------------------|--|
| LD50 oral rat | > 2000 mg/kg (Read-across FeNa-EDTA) |
| LD50 dermal rat | > 2000 mg/kg (Read-across FeNa-EDTA) |
| LC50 inhalation rat (mg/l) | > 2.75 mg/l/4h (Read-across FeNa-EDTA) |

Skin corrosion/irritation : Not classified
pH: 6 (5 - 7)

Serious eye damage/irritation : Not classified
pH: 6 (5 - 7)

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

| Fe-EDTA 13% - K (54959-35-2) | |
|------------------------------|-------------------------------------|
| LC50 fish 1 | > 100 mg/l (Read-across FeNa-EDTA) |
| EC50 Daphnia 1 | 100.9 mg/l (Read-across FeNa-EDTA) |
| EC50 72h algae (1) | > 87.3 mg/l (Read-across FeNa-EDTA) |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

| Fe-EDTA 13% - K (54959-35-2) | |
|------------------------------|------|
| Log Kow | -4.6 |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose of contaminated materials in accordance with current regulations.

Waste treatment methods : Empty containers should be taken for recycle, recovery or waste in accordance with local regulation.

SECTION 14: Transport information

Not regulated for transport

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Fe-EDTA 13% - K is not on the REACH Candidate List

Fe-EDTA 13% - K is not on the REACH Annex XIV List

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15.1.2. National regulations

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

15.2. Chemical safety assessment

A chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|-------|---|
| CLP | CLP = Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| SDS | SDS = Safety Data Sheet |
| REACH | REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| DMEL | DMEL = Derived Minimal Effect level |
| DNEL | DNEL = Derived-No Effect Level |
| EC50 | Median effective concentration |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| PNEC | PNEC = Predicted No-Effect Concentration |
| STP | Sewage treatment plant |

Data sources : ECHA Website: Information on Registered Substances
Handbook of Chemistry and Physics CRC Press Inc
Information suppliers
BIG-database.

Other information : **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product