Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking
   Product identifier:
   - Product name: Ethylenediaminetetraacetic acid monosodium iron(III)salt
   - Product code (SDS NO): 2927E-1
   Details of the supplier of the safety data sheet
   - Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.
   - Address: 3-1, Honmachibashi, Chuo-ku, Osaka 540-0029, JAPAN
   - Division: Safety Management Dept. of Chemicals
   - Telephone number: +81-6-6946-8061
   - FAX: +81-6-6946-1607
   - e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification
   GHS classification and label elements of the product
   Classification of the substance or mixture
   HEALTH HAZARDS
   - Skin corrosion/irritation: Category 2
   - Serious eye damage/eye irritation: Category 2A
   - Skin sensitization: Category 1
   - Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)
   ENVIRONMENT HAZARDS
   - Hazardous to the aquatic environment (Acute): Category 3
   (Note) GHS classification without description: Not applicable/Out of classification/Not classifiable
   Label elements
   Signal word: Warning
   HAZARD STATEMENT
   - Causes skin irritation
   - Causes serious eye irritation
   - May cause an allergic skin reaction
   - May cause respiratory irritation
   - Harmful to aquatic life
   PRECAUTIONARY STATEMENT
   Prevention
   - Avoid release to the environment.
   - Avoid breathing dust/fume/gas/mist/vapors/spray.
   - Use only outdoors or in a well-ventilated area.
   - Wash contaminated parts thoroughly after handling.
   - Wear protective gloves.
   - Contaminated work clothing should not be allowed out of the workplace.
   - Wear eye protection/face protection.
   Response
   - Call a POISON CENTER or doctor/physician if you feel unwell.
   - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
3. Composition/information on ingredients
Mixture/Substance selection:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Ingredient name: Ethylenediaminetetraacetic acid monosodium iron(III)salt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content (%)</td>
<td>90(min)</td>
</tr>
<tr>
<td>Chemical formula</td>
<td>C10H12N2O8NaFe</td>
</tr>
<tr>
<td>CAS No.</td>
<td>15708-41-5</td>
</tr>
<tr>
<td>Chemicals No, Japan</td>
<td>2-1265; 2-1266</td>
</tr>
<tr>
<td>MW</td>
<td>367.05</td>
</tr>
<tr>
<td>ECNO</td>
<td>239-802-2</td>
</tr>
</tbody>
</table>

Note: The figures shown above are not the specifications of the product.

4. First-aid measures
Descriptions of first-aid measures

General measures
Call a POISON CENTER or doctor/physician if you feel unwell.

IF INHALED
Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)
Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

IF SWALLOWED
Rinse mouth.
Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures
Extinguishing media
Suitable extinguishing media
Use appropriate extinguishing media suitable for surrounding facilities.

Specific hazards arising from the substance or mixture
Containers may explode when heated.
Fire may produce irritating, corrosive and/or toxic gases.

Advice for firefighters
Specific fire-fighting measures
Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters
- Wear fire/flame resistant/retardant clothing.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

6. Accidental release measures
Personnel precautions, protective equipment and emergency procedures
- Ventilate area until material pick up is complete.
- Wear proper protective equipment.

Methods and materials for containment and cleaning up
- Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident
- Collect spillage.

7. Handling and storage
Precautions for safe handling
Preventive measures
- (Exposure Control for handling personnel)
  - Avoid breathing dust/fume/gas/mist/vapors/spray.
- (Protective measures against fire and explosion)
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Exhaust/ventilator
- Exhaust/ventilator should be available.

Safety treatments
- Avoid contact with skin.
- Avoid contact with eyes.

Safety Measures/Incompatibility
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves, protective clothing or face protection.
- Wear eye protection/face protection.
- When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities
Recommendation for storage
- Keep container tightly closed.
- Store in a cool, dry place. Do not store in direct sunlight.

8. Exposure controls/personal protection
Exposure controls
- Appropriate engineering controls
  - Do not use in areas without adequate ventilation.
  - Eye wash station should be available.
  - Washing facilities should be available.

Individual protection measures
Respiratory protection
- Wear respiratory protection.

Hand protection
- Wear protective gloves.

Eye protection
- Wear eye/face protection.
Safety and Health measures
- Wash contaminated parts thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Take off contaminated clothing and wash it before reuse.

9. Physical and Chemical Properties
Information on basic physical and chemical properties
Physical properties
- Appearance: Powder
- Color: Yellow
- Odor data N.A.
- pH: 4.0–5.5

Phase change temperature
- Initial Boiling Point/Boiling point data N.A.
- Boiling range data N.A.
- Melting point/Freezing point data N.A.
- Decomposition temperature data N.A.
- Flash point data N.A.
- Auto-ignition temperature data N.A.
- Explosive properties data N.A.
- Vapor pressure data N.A.
- Specific gravity/Density data N.A.
- Solubility
  - Solubility in water: 9.46g/100g(20℃)
  - n-Octanol/water partition coefficient data N.A.

10. Stability and Reactivity
Reactivity
- N.A.

Chemical stability
- Stable under normal storage/handling conditions.

Possibility of hazardous reactions
- N.A.

Conditions to avoid
- Contact with incompatible materials.
- Contact with fire source.

Incompatible materials
- Oxidizing agents

Hazardous decomposition products
- Carbon oxides, Nitrogen oxides

11. Toxicological Information
Information on toxicological effects
Acute toxicity
- Acute toxicity (Oral)
  - [Company proprietary data]
  - (Ethylenediaminetetraacetic acid monosodium iron(III)salt)
  - rat LD50=5000mg/kg

No Irritant properties data available
No Allergenic and sensitizing effects data available
No Mutagenic effects data available
No Carcinogenic effects data available
No reproductive toxicity data available
Delayed and immediate effects and also chronic effects from short- and long-term exposure

STOT
STOT—single exposure
[cat.3 (resp. irrit.)]
[Company proprietary data]
(Ethlenediaminetetraacetic acid monosodium iron(III)salt)
Respiratory tract irritation

No Aspiration hazard data available
Additional data
May cause lung disorders by massive inhalation of powdered substance.
- e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

12. Ecological Information
Ecotoxicity
Aquatic toxicity
  Harmful to aquatic life
No Persistence and degradability data available
No Bioaccumulative potential data available
No Mobility in soil data available
Ozone depleting chemical data not available

13. Disposal considerations
Waste treatment methods
  Avoid release to the environment (~ if this is not the intended use).
  Dispose of contents/container in accordance with local/national regulation.

14. Transport Information
Not applicable to UN No.
IMDG Code (International Maritime Dangerous Goods Regulations)
Not applicable to IMDG Code
IATA Dangerous Goods Regulations
Not applicable to IATA Dangerous Goods Regulations
Environmental hazards
  MARPOL Annex III – Prevention of pollution by harmful substances
  Marine pollutants (yes/no) : no

15. Regulatory Information
Safety, health and environmental regulations/legislation specific for the substance or mixture
US major regulations
  TSCA
  Ethylenediaminetetraacetic acid monosodium iron(III)salt
Other regulatory information
  Ensure this material in compliance with federal requirements and ensure conformity to local regulations.
16. Other information

GHS classification and labelling

Skin Irrit. 2: H315 Causes skin irritation
Eye Irrit. 2A: H319 Causes serious eye irritation
Skin Sens. 1: H317 May cause an allergic skin reaction
STOT SE 3: H335 May cause respiratory irritation
Aquatic Acute 3: H402 Harmful to aquatic life

Reference Book

IATA Dangerous Goods Regulations (60th Edition) 2019
Classification, labelling and packaging of substances and mixtures (table3–1 ECNO6182012)
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2018 TLVs and BEIs. (ACGIH)
http://monographs.iarc.fr/ENG/Classification/index.php
Supplier’s data/information

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It is advised to make their own tests to determine the safety and suitability of each such product or combination for their own purposes.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2017).