

VALAGRO Safety Sheet
 Date: September 07,2018 rev 2.2
 Product: Ferrilene
 Code: 11058
 Print Date: September 7, 2018

SAFETY SHEET

Ferrilene

1 – IDENTIFICATION

1.1 Product identifier	
Chemical name:	Ferrate(1-),[[.alpha.,.alpha.'-[1,2-ethanediyldi(imino-.kappa.N)]bis[2-(hydroxy-.kappa.O)benzeneacetato-.kappa.O]](4-)]-, sodium (1:1)
Trade name:	Ferrilene
Synonyms:	Iron EDDHA sodium salt
CAS Registry number:	16455-61-1
EINECS No:	240-505-5
1.2 Relevant identified uses of the substance and uses advised against	
Relevant identified uses of the substance:	Fertilizer
1.3 Details of the supplier of the safety data sheet:	
<p>Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:</p> <p>Produced and packed by: VALAGRO Spa Via Cagliari, 1 Zona Industriale 66041 Atessa (CH) ITALY Tel. (+39) 08728811 Fax (+39) 0872881382 www.valagro.com</p> <p>Distributed and guaranteed by: Valagro USA Inc. 2020 Ponce de Leon Blvd, Ste. 1203 Coral Gables, FI 33134 Phone +1-786-230-1020 / +1-786-230-1019</p> <p>Competent person responsible for the safety data sheet: regulatory@valagro.com</p>	
1.4 Emergency telephone number:	Valagro USA Inc Phone +1-786-230-1020 / +1-786-230-1019

2 – HAZARDS IDENTIFICATIONS

2.1 Classification of the substance:
Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200): The product is not classified as dangerous
Classification according to Regulation (EC) No 1272/2008: The product is not classified as dangerous
Most important adverse physicochemical, human health and environmental effects: see sections from 9 to 12.

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2.2 Label Elements:
Hazard pictograms : none Signal word: none Hazard statements: none Precautionary statements: none
2.3 Hazards not otherwise classified that have been identified during the classification process:
None
2.4 Ingredient(s) with unknown acute toxicity:
None component with unknown acute toxicity is present in the mixture

3 – COMPOSITION/INFORMATION ON INGREDIENTS

Name	N° EINECS	CAS NUMBER
Ferrate(1-),[[.alpha..alpha.'-[1,2-ethanediyldi(imino-.kappa.N)]bis[2-(hydroxy-.kappa.O)benzeneacetato-.kappa.O]](4-)]-, sodium (1:1)	240-505-5	16455-61-1

4 – FIRST AID MEASURES

4.1 Description of first aid measures
Routes of exposure: <ul style="list-style-type: none"> - Inhalation: Remove casualty to fresh air and keep warm and at rest. - Skin: Take off all contaminated clothing. Rinse abundantly with water and soap. Seek medical advice in case of irritation. Wash clothes before reuse. - Eye: Rinse immediately and abundantly with water for at least 10 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if the irritation spreads out - Ingestion: Never give anything by mouth to an unconscious person; if person is conscious rinse mouth with water and then give plenty of water to drink.Do not induce vomiting unless instructed to do so by medical personnel.OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
4.2 Most important symptoms and effects, both acute and delayed
<ul style="list-style-type: none"> - Inhalation: Possible irritation of respiratory tract - Skin: Possible irritation according to the contact time with the product - Eye: Possible irritation according to the contact time with the product - Ingestion: Possible irritation of mouth and digestive tract.
4.3 Indication of any immediate medical attention and special treatment needed
In case of accident, seek immediately medical advice showing the safety data sheet

5 – FIREFIGHTING MEASURES

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5.1 Extinguishing media

Suitable extinguishing media:

Water, foam, carbon dioxide (CO₂),

Information on the appropriate extinguishing media:

Not relevant

Unsuitable extinguishing media:

None

Indications if extinguishing media are inappropriate for a particular situation involving the substance or mixture:

None

5.2 Special hazards arising from the substance:

In case of fire avoid to breath fumes , it may release toxic fumes (COx, NOx, SOx)

5.3 Special protective equipment and precautions for fire-fighters.

Use suitable breathing apparatus, protective clothing, eye protection and gloves resistant to chemicals according to EN469

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6 – ACCIDENTAL RELEASE MEASURE

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training.

Wear protective clothes giving a total skin protection, gloves and safety glasses.

Keep away from the affected area people not involved in the emergency intervention.

Ensure adequate ventilation, move people in a safe place.

Alert the internal emergency team.

- For emergency responders:

Wear protective clothes giving a total skin protection, gloves and safety glasses.

See protective measures under point 7 and 8.

Avoid dust generation.

Dusts at sufficient concentrations can form explosive mixtures with air

Avoid any accumulation of electrostatic charge which may create a hazardous condition and cause an ignition.

Product layer on hot surface might cause auto-ignition

Ensure adequate ventilation, move people in a safe place.

6.2 Environmental precautions:

Collect the product for example using shovel and broom

Avoid raising dust

Wash with plenty of water and adsorb with organic material or sand collect the product absorbed for example using shovel and broom

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Dilute with water and retain contaminated wash water and dispose in authorized facilities or pick up in clean plastic labeled containers and reuse as fertilizer.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

7 – HANDLING AND STORAGE

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7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
 Don't use empty container before they have been cleaned.
 Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
 Contaminated clothing should be changed before entering eating areas.
 Do not eat or drink while working.
 See also section 8 for recomened protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Keep in the original package in a cool well-ventilated place, away from sources of heat
 Keep away from food, drink and feed.
 Incompatible materials:
 Strong oxidizing substances
 Instructions as regards storage premises:
 Adequately ventilated premises.
 Avoid dust generation.
 Dusts at sufficient concentrations can form explosive mixtures with air
 Avoid any accumulation of electrostatic charge which may create a hazardous condition and cause an ignition.

8 –EXPOSURE CONTROL/ PERSONAL PROTECTION

8.1 Exposure limit values:

Occupational exposure limit values:

ACGIH

Substance name	TLW-TWA (mg/m3)	TLV-STEL (ppm)	note	critical effects
Iron soluble salts	1	N.D.	N.D.	Irritation

8.2 Appropriate engineering controls.

Appropriate engineering controls:

Operate in well-ventilated areas

Individual protection measures, such as personal protective equipment:

The personal protective equipment must be compliant to the regulation UNI – EN in force

Eye / face protection:

Wear safety glasses according to the standard EN 166, don't use contact lenses.

Skin protection:

-Hand protection:

Wear nitrile gloves according to the standard EN 374.

-Other:

Wear total skin protection clothes

Respiratory protection:

In case of generation of dust, use anti-powder mask with P2 (FFP2) filters according to the EN 149. The powder exposition limit must be respected

- Environmental exposure controls:

Keep the product concentration under the exposure limits established by the law

9 – PHYSICAL AND CHEMICAL PROPERTIES

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9.1 Information on basic physical and chemical properties		
Appearance:	Dark red/black microgranules	
Odour:	Odourless	
Odour threshold:	N.A.	
pH 1%:	7 - 8	
Melting point/freezing point:	N.A.	
Initial boiling point and boiling range:	N.A.	
Flash point:	N.A.	
Evaporation rate:	N.A.	
Flammability (solid, gas):	N.A.	
Upper/lower flammability or explosive limits:		
Vapour pressure:	N.A.	
Vapour density:	N.A.	
Apparent density:	0,7-0,8	Kg/dm ³
Partition coefficient: n-octanol/water	N.A.	
Auto-ignition temperature:	N.A.	
Decomposition temperature:	N.A.	
Viscosity:	N.A.	
Explosive properties:	N.A.	
Oxidising properties:	N.A.	
9.2 Other information		
Conductivity	N.A.	

10 – STABILITY AND REACTIVITY

10.1 Reactivity:	Stable at the usual work condition
10.2 Chemical stability:	Stable at the usual work condition
10.3 Possibility of hazardous reactions:	Contact with strong oxidizing substances may induce violent reactions
10.4 Conditions to avoid:	Heating of the product at high temperatures Dusts at sufficient concentrations can form explosive mixtures with air Avoid any accumulation of electrostatic charge which may create a hazardous condition and cause an ignition.
10.5 Incompatible materials:	Strong oxidizing agents
10.6 Hazardous decomposition products:	In case of fire may release toxic fumes (COx, NOx, SOx)

11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
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Information on likely routes of exposure:

Inhalation: can be irritant for nose and respiratory system
Skin: can be irritant for skin
Eye: can be irritant for eyes
Ingestion: can be irritant for mouth and digestive tract

12 – ECOLOGICAL INFORMATION

Adopt good working practices, so that the product is not released into the environment.

12.1 Toxicity

N.A.

12.2 Persistence and degradability

N.A.

12.3 Bioaccumulative potential

N.A.

12.4 Mobility in soil

The product is soluble and mobile in both terrestrial and aquatic compartments

12.5 Results of PBT and vPvB assessment

N.A.

12.6 Other adverse effects

N.A.

13 – DISPOSAL CONSIDERATIONS**13.1 Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:**

- Product :Recover if possible. In so doing, comply with the local and national regulations currently in force.
- Packaging: Dispose according to regulations.

14 – TRANSPORT INFORMATION

Not dangerous product within the meaning of transport regulations

15 – REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance**

Hazard Communication Standard (HCS) Haz Com 2012

OSHA, 29 CFR 1910.1200(g) and Appendix D. United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), third revised edition, United Nations, 2009.

Hazard Communication Standard

United Nations Recommendations on the Transport of Dangerous Goods.

OSHA Permissible Exposure Limit

[29 CFR 1926.55 Appendix A](#)

American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV)

National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit

(REL)

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Chemical Abstracts Service (CAS) Registry Number
Regulation CLP (EC) 1272/2008.

16 – OTHER INFORMATION OTHER INFORMATION , INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of preparation of the SDS: revision 2.2, date 07 September 2018.

This document was prepared by a competent person who has received appropriate training.

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 SDS cancels and replaces any preceding release.

N.A. no data available

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.