

Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07.

Date of issue: 09/23/2024

Reviewed on 09/23/2024

* 1 Identification

- **Product identifier**
- **Trade name:** *Florikan CRF Ferrous Ammonium Sulfate*
- **Other means of identification**
- **Product Description:** *Polymer Coated Fertilizer*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 FLORIKAN E.S.A. LLC
 2404 Commerce Court
 Bowling Green, Florida 33834
 (941) 379-4048
- **Emergency telephone number:**
 For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident
 Call CHEMTREC Day or Night
 Within USA and Canada: 1-800-424-9300
 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

* 2 Hazard(s) identification

- **Classification of the substance or mixture**
 The product is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** *Non-Regulated Material*
- **Hazard pictograms** *Non-Regulated Material*
- **Signal word** *Non-Regulated Material*
- **Hazard statements** *Non-Regulated Material*
- **Unknown acute toxicity:**
 This value refers to knowledge of known, established toxicological or ecotoxicological values.
 0 % of the mixture consists of component(s) of unknown toxicity.
- **Information pertaining to particular dangers for man and environment:**
- **Classification system:** *NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme*
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **Classification according to (d)(1)(ii) of § 1910.12000**
 The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.
- **Hazards not otherwise classified**
 There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

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3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 7720-78-7 RTECS: NO 8510000	iron sulphate ⚠ Acute toxicity - oral 4, H302; Skin irritation 2, H315; Eye irritation 2A, H319	30–60% *
CAS: 7783-20-2 RTECS: BS 4500000	Ammonium Sulphate ⚠ Skin irritation 2, H315; Eye irritation 2A, H319; Specific target organ toxicity (single exposure) 3, H335	30–60% *
CAS: 25791-96-2	Poly(oxypropylene) triol	5–10% *
CAS: 1332-58-7	Kaolin	0.5–1.5% *

* Actual concentration ranges are withheld as a trade secret.

- **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation occurs, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
If eye irritation occurs, consult a doctor.
If easy to do so, remove contact lenses if worn.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

* 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to section 13.

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Ensure adequate ventilation.

· **Protective Action Criteria for Chemicals**

Protective Action Criteria (PACs) are essential components for planning and response to uncontrolled releases of hazardous chemicals.

· **PAC-1:**

PAC 1: Mild, transient health effects.

7720-78-7	iron sulphate	8.2 mg/m ³
7783-20-2	Ammonium Sulphate	13 mg/m ³

· **PAC-2:**

PAC 2: Irreversible or other serious health effects that could impair the ability to take protective action.

7720-78-7	iron sulphate	41 mg/m ³
7783-20-2	Ammonium Sulphate	99 mg/m ³

· **PAC-3:**

PAC 3: Life-threatening health effects.

7720-78-7	iron sulphate	250 mg/m ³
7783-20-2	Ammonium Sulphate	590 mg/m ³

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

7720-78-7 iron sulphate	
REL	Long-term value: 1 mg/m ³ as Fe
TLV	Long-term value: 1 mg/m ³ as Fe
1332-58-7 Kaolin	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction

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REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 2* mg/m ³ E; respirable particulate matter, A4

· **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

· **Exposure controls**

· **Appropriate engineering controls** No further data; see section 7.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Limitation and supervision of exposure into the environment** None

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Solid

· **Color:**

Whitish

· **Odor:**

Slight

· **Odor threshold:**

Not determined.

· **Melting point/Melting range:**

Undetermined.

· **Boiling point/Boiling range:**

Undetermined.

· **Flammability:**

Not determined.

· **Explosion limits:**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

Not applicable.

· **Auto igniting:**

400 °C (752 °F)

· **Decomposition temperature:**

Not determined.

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· pH-value at 20 °C (68 °F):	~7
· Viscosity:	
· Kinematic:	Not applicable.
· Dynamic:	Not applicable.
· Solubility in / Miscibility with	
· Water:	Soluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Vapor pressure:	Not applicable.
· Vapor pressure:	
· Density at 20 °C (68 °F):	1 g/cm ³ (8.345 lbs/gal)
· Relative density	Not determined.
· Bulk density:	1,000 kg/m ³
· Vapor density	Not applicable.
· Particle characteristics	Not determined.
· Other information	
· Appearance:	
· Form:	Granulate
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Solvent content:	
· VOC content:	0.00 %
· Solids content:	100.0 %

10 Stability and reactivity

- **Reactivity**
The product is stable under normal conditions.
No further relevant information available.
- **Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Oral	LD50	3,378 mg/kg
7720-78-7 iron sulphate		
Oral	LD50	1,520 mg/kg (mouse)
7783-20-2 Ammonium Sulphate		
Oral	LD50	2,840 mg/kg (rat)
Inhalative	LC50/96 hours	433 Mg/l (Water flea)
		36.7 Mg/l (trout)

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25791-96-2 Poly(oxypropylene) triol		
Oral	LD50	2,000 mg/kg (rat)
1332-58-7 Kaolin		
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rat)

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Interactive effects** No interactive effects between components are known.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Alternative sources for toxicological information**

No non-standard sources for toxicological information where used.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects**

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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* 14 Transport information

- **UN-Number**
- **DOT, IMDG, IATA** not regulated
- **UN proper shipping name**
- **DOT, IMDG, IATA** not regulated
- **Transport hazard class(es)**
- **DOT, ADN, IMDG, IATA**
- **Class** not regulated
- **Packing group**
- **DOT, IMDG, IATA** not regulated
- **Environmental hazards:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Special precautions for user** Not applicable.
- **UN "Model Regulation":** not regulated

* 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

- **Sara**

- **Section 355 (extremely hazardous substances):**

7720-78-7	iron sulphate
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- **Section 313 (Specific toxic chemical listings):**

7783-20-2	Ammonium Sulphate
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- **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

- **Hazardous Air Pollutants**

None of the ingredients is listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **New Jersey Right-to-Know List:**

7720-78-7	iron sulphate
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7783-20-2	Ammonium Sulphate
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1332-58-7	Kaolin
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- **New Jersey Special Hazardous Substance List:**

None of the ingredients is listed.

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· Pennsylvania Right-to-Know List:		
7720-78-7	iron sulphate	
7783-20-2	Ammonium Sulphate	
1332-58-7	Kaolin	

· Pennsylvania Special Hazardous Substance List:		
7720-78-7	iron sulphate	E
7783-20-2	Ammonium Sulphate	E

· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		

· TLV (Threshold Limit Value)		
1332-58-7	Kaolin	A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		

- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Department issuing SDS:** Environment protection department.
- **SDS created by:** Access GHS, LLC - 888-363-4870 - Team@access-ghs-sds.com
- **Date of previous version** 09/23/2024
- **Date of preparation** 09/23/2024
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - NFPA: National Fire Protection Association (USA)
 - HMIS: Hazardous Materials Identification System (USA)
 - VOC: Volatile Organic Compounds (USA, EU)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - NIOSH: National Institute for Occupational Safety
 - OSHA: Occupational Safety & Health
 - TLV: Threshold Limit Value
 - PEL: Permissible Exposure Limit
 - REL: Recommended Exposure Limit
 - Acute toxicity - oral 4: Acute toxicity – Category 4
 - Skin irritation 2: Skin corrosion/irritation – Category 2
 - Eye irritation 2A: Serious eye damage/eye irritation – Category 2A
 - Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) – Category 3
- *** Data compared to the previous version altered.**