

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 10/19/2020

Reviewed on 10/19/2020

1 Identification

- **Product Identifier**
- **Trade Name: Florikan CRF Minors Mix**
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Fertilizer
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Florikan ESA, LLC
6801 Energy Ct. Suite 100
Sarasota, FL 34234
Ph: 941-379-4048 ext 332
Fax: 941-377-3633
Email product info: Doug Cabe; dcabe@florikan.com
- **Emergency telephone number:** Chemtrec 1-800-424-9300 or outside USA 1-703-527-3887

www.Florikan.com

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
Aquatic Acute 3 H402 Harmful to aquatic life.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:**
H402 Harmful to aquatic life.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements:**
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
18 % of the mixture consists of component(s) of unknown toxicity.
- **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)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

* 3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

CAS: 7733-02-0	Zinc Sulphate (anhydrous)	≤2.5%
	Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410;	
	Acute Tox. 4, H302	

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 10/19/2020

Reviewed on 10/19/2020

Trade Name: Florikan CRF Minors Mix

CAS: 7758-98-7 RTECS: GL 8800000	Copper Sulfate ⚠ Acute Tox. 3, H311; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	≤2.5%
CAS: 13463-67-7	Titanium Dioxide ⚠ Carc. 2, H351	<1%

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: If symptoms persist, call a physician.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact:

Wash with soap and water.

If skin irritation occurs, consult a doctor.

After eye contact:

If eye irritation occurs, consult a doctor.

Rinse opened eye for several minutes under running water.

After swallowing: If swallowed and symptoms occur, consult a doctor.

Information for 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:

No further relevant information available.

5 Fire-Fighting Measures

Extinguishing media

Suitable extinguishing agents: Use fire fighting measures that suit the environment.

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

Special protective equipment for firefighters:

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:

Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:

Dispose of the collected material according to regulations.

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.

Protective Action Criteria for Chemicals

PAC-1:

10034-99-8	Magnesium Sulfate	33 mg/m ³
7733-02-0	Zinc Sulphate (anhydrous)	15 mg/m ³

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 10/19/2020

Reviewed on 10/19/2020

Trade Name: Florikan CRF Minors Mix

7758-98-7	Copper Sulfate	7.5 mg/m ³
7785-87-7	Manganese Sulphate	8.2 mg/m ³
13463-67-7	Titanium Dioxide	30 mg/m ³
· PAC-2:		
10034-99-8	Magnesium Sulfate	370 mg/m ³
7733-02-0	Zinc Sulphate (anhydrous)	97 mg/m ³
7758-98-7	Copper Sulfate	9.9 mg/m ³
7785-87-7	Manganese Sulphate	14 mg/m ³
13463-67-7	Titanium Dioxide	330 mg/m ³
· PAC-3:		
10034-99-8	Magnesium Sulfate	2,300 mg/m ³
7733-02-0	Zinc Sulphate (anhydrous)	580 mg/m ³
7758-98-7	Copper Sulfate	59 mg/m ³
7785-87-7	Manganese Sulphate	430 mg/m ³
13463-67-7	Titanium Dioxide	2,000 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **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:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

13463-67-7 Titanium Dioxide	
PEL	Long-term value: 15* mg/m ³ *total dust
REL	See Pocket Guide App. A
TLV	Long-term value: 10 mg/m ³

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 10/19/2020

Reviewed on 10/19/2020

Trade Name: Florikan CRF Minors Mix

- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:** Not required.
- **Limitation and supervision of exposure into the environment:**
Keep away from drains, surface and ground waters.
Avoid release into the environment.

9 Physical and Chemical Properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

- Form:** Granulate
- Color:** White
- Odor:** Slight
- Odor threshold:** Not determined.
- pH-value:** Not determined.

· Change in condition

- Melting point/Melting range:** Not determined.
- Boiling point/Boiling range:** Not determined.

· Flash point:

None

· Flammability (solid, gaseous):

Not determined.

· Ignition temperature:

Not applicable

· Decomposition temperature:

Not determined.

· Auto igniting:

Product is not self-igniting.

· Danger of explosion:

Product does not present an explosion hazard.

· Explosion limits:

- Lower:** Not determined.
- Upper:** Not determined.

· Vapor pressure @ 25 °C (77 °F):

<0.1 hPa

· Density:

- Relative density:** Not determined.
- Vapor density:** Not applicable.
- Evaporation rate:** Not applicable.

· Solubility in / Miscibility with:

- Water:** Soluble.

· Partition coefficient (n-octanol/water):

Not determined.

· Viscosity:

- Dynamic:** Not applicable.
- Kinematic:** Not applicable.

· Solvent content:

- VOC content:** 0.00 %

- Solids content:** 100.0 %

· Other information:

No further relevant information available.

(Contd. on page 5)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 10/19/2020

Reviewed on 10/19/2020

Trade Name: Florikan CRF Minors Mix

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is 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:**

7758-98-7 Copper Sulfate

Oral	LD50	300 mg/kg (Rat)
Dermal	LD50	1,000 mg/kg (Rabbit)

13463-67-7 Titanium Dioxide

Oral	LD50	>10,000 mg/kg (Rat)
Dermal	LD50	>10,000 mg/kg (Rabbit)
Inhalative	LC50/4 h	>6.82 mg/l (Rat)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** No irritating effect.
- **Additional toxicological information:**
- **Carcinogenic categories:**
- **IARC (International Agency for Research on Cancer):**

In finished state, it is not classifiable.

Group 1 - Carcinogenic to humans

Group 2A - Probably carcinogenic to humans

Group 2B - Possibly carcinogenic to humans

Group 3 - Not classifiable as to its carcinogenicity to humans

Group 4 - Probably not carcinogenic to humans

(a) Although IARC has classified titanium dioxide as possible carcinogenic to human (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products which titanium dioxide is bound to other materials, such as in cosmetics or in paints."

(b) OSHA does not regulate Titanium Dioxide as a carcinogen. However, under 29 CFR 1910.1200 the SDS must convey the fact that Titanium Dioxide is a potential carcinogen to rats.

13463-67-7 Titanium Dioxide

2B

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

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

None of the ingredients are listed.

(Contd. on page 6)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 10/19/2020

Reviewed on 10/19/2020

Trade Name: Florikan CRF Minors Mix

12 Ecological Information

· **Toxicity:**

· **Aquatic toxicity:**

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

7758-98-7 Copper Sulfate

EC50	0.0058-0.0073 mg/l (Daphnia)
	48 hours

13463-67-7 Titanium Dioxide

EC50	>1,000 mg/l (Water flea)
------	--------------------------

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

· **Behavior in environmental systems:**

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

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

· **Ecotoxicological effects:**

· **Remark:** Harmful to fish

· **Additional ecological information:**

· **General notes:**

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.

Harmful to aquatic organisms

· **Results of PBT and vPvB assessment:**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No further relevant information available.

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 packaging**

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

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

14 Transport Information

· **UN-Number:**

· **DOT, ADR/ADN, IMDG, IATA**

Non-Regulated Material

· **UN proper shipping name:**

· **DOT, ADR/ADN, IMDG, IATA**

Non-Regulated Material

· **Transport hazard class(es):**

· **DOT, ADR/ADN, ADN, IMDG, IATA**

· **Class:**

Non-Regulated Material

· **Packing group:**

· **DOT, ADR/ADN, IMDG, IATA**

Non-Regulated Material

· **Environmental hazards:**

Not applicable.

· **Special precautions for user:**

Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:**

Not applicable.

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 10/19/2020

Reviewed on 10/19/2020

Trade Name: Florikan CRF Minors Mix

· **UN "Model Regulation":** Non-Regulated Material

* 15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

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

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

7733-02-0 Zinc Sulphate (anhydrous)

7758-98-7 Copper Sulfate

7785-87-7 Manganese Sulphate

· **TSCA (Toxic Substances Control Act):**

7733-02-0 Zinc Sulphate (anhydrous)

ACTIVE

7758-98-7 Copper Sulfate

ACTIVE

7785-87-7 Manganese Sulphate

ACTIVE

13463-67-7 Titanium Dioxide

ACTIVE

· **Hazardous Air Pollutants**

7785-87-7 Manganese Sulphate

· **California Proposition 65:**

· **Chemicals known to cause cancer:**

No significant exposure to titanium dioxide is thought to occur during the use of products which titanium dioxide is bound to other materials.

13463-67-7 Titanium Dioxide

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

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

· **New Jersey Right-to-Know List:**

7733-02-0 Zinc Sulphate (anhydrous)

7758-98-7 Copper Sulfate

13463-67-7 Titanium Dioxide

· **New Jersey Special Hazardous Substance List:**

None of the ingredients are listed.

· **Pennsylvania Right-to-Know List:**

7733-02-0 Zinc Sulphate (anhydrous)

7758-98-7 Copper Sulfate

13463-67-7 Titanium Dioxide

· **Pennsylvania Special Hazardous Substance List:**

7733-02-0 Zinc Sulphate (anhydrous)

E

7758-98-7 Copper Sulfate

E

(Contd. on page 8)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 10/19/2020

Reviewed on 10/19/2020

Trade Name: Florikan CRF Minors Mix

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

7733-02-0	Zinc Sulphate (anhydrous)	D, I, II
7785-87-7	Manganese Sulphate	D

· **TLV (Threshold Limit Value established by ACGIH):**

13463-67-7	Titanium Dioxide	A4
------------	------------------	----

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

13463-67-7	Titanium Dioxide
------------	------------------

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:** Non-Regulated Material

· **Signal word:** Non-Regulated Material

· **Hazard statements:**

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements:**

P273 Avoid release to the environment.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

None of the ingredients are listed.

· **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.

· **Date of last revision/ revision number:** 10/19/2020 / 1

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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 and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

(Contd. on page 9)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 10/19/2020

Reviewed on 10/19/2020

Trade Name: Florikan CRF Minors Mix

Carc. 2: Carcinogenicity – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106