

Safety Data Sheet (SDS)

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

Issue date 04/21/2022

Reviewed on 04/21/2022

1 Identification

- **Product Identifier**
- **Trade Name:** 55838A Florikan
- **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.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard-determining components of labeling:**
Ammonium Nitrate
- **Hazard statements:**
H402 Harmful to aquatic life.
- **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.
11.3 % 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.

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· Dangerous Components:		
CAS: 6484-52-2 RTECS: BR9050000	Ammonium Nitrate ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335	25-50%
CAS: 7446-19-7 RTECS: ZH 5300000	Zinc sulfate monohydrate ⚠ Eye Damage 1, H318; ⚠ Aquatic Acute 1, H400; ⚠ Acute Toxicity - Oral 4, H302	≤2.5%
CAS: 1303-96-4 RTECS: ED4588000	Disodium tetraborate, decahydrate ⚠ Toxic to Reproduction 1B, H360 Specific concentration limit: Toxic to Reproduction 1B; H360: C ≥ 8.5 %	≤2.5%

· 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:

Generally, the product does not irritate the skin.

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: 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

· 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.

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See Section 13 for disposal information.

· PAC-1:		
6484-52-2	Ammonium Nitrate	6.7 mg/m ³
7757-79-1	Potassium Nitrate	9 mg/m ³
7785-87-7	Manganese Sulphate	8.2 mg/m ³
1303-96-4	Disodium tetraborate, decahydrate	6 mg/m ³
· PAC-2:		
6484-52-2	Ammonium Nitrate	73 mg/m ³
7757-79-1	Potassium Nitrate	100 mg/m ³
7785-87-7	Manganese Sulphate	14 mg/m ³
1303-96-4	Disodium tetraborate, decahydrate	190 mg/m ³
· PAC-3:		
6484-52-2	Ammonium Nitrate	440 mg/m ³
7757-79-1	Potassium Nitrate	600 mg/m ³
7785-87-7	Manganese Sulphate	430 mg/m ³
1303-96-4	Disodium tetraborate, decahydrate	1,100 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.

1303-96-4 Disodium tetraborate, decahydrate

REL	Long-term value: 5 mg/m ³
TLV	Short-term value: 6* mg/m ³
	Long-term value: 2* mg/m ³
	*as inhalable fraction, A4

- **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.

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- **Protection of hands:** Not required.
- **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: | Grayish |
| Odor: | Slight |
| Odor threshold: | Not determined. |

- | | |
|-----------|-----------------|
| pH-value: | Not determined. |
|-----------|-----------------|

· Change in condition

- | | |
|------------------------------|-----------------|
| Melting point/Melting 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: | Not applicable. |
|-----------------|-----------------|

- | | |
|--------------------------|--|
| Density @ 20 °C (68 °F): | 1.6742 g/cm ³ (13.9712 lbs/gal) |
|--------------------------|--|

- | | |
|---------------|---------------------------|
| Bulk density: | 1,614.2 kg/m ³ |
|---------------|---------------------------|

- | | |
|-------------------|-----------------|
| 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 % |
|-----------------|---------|

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- **Other information:** No further relevant information available.

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:**

6484-52-2 Ammonium Nitrate

Oral LD50 2,217 mg/kg (Rat)

7446-19-7 Zinc sulfate monohydrate

Oral LD50 2,150 mg/kg (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):**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:**
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
- **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 undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
Harmful to aquatic organisms

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

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.
- **SARA (Superfund Amendments and Reauthorization):**

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

None of the ingredients are listed.

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

6484-52-2	Ammonium Nitrate
7757-79-1	Potassium Nitrate
7785-87-7	Manganese Sulphate
7446-19-7	Zinc sulfate monohydrate

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

6484-52-2	Ammonium Nitrate	ACTIVE
7757-79-1	Potassium Nitrate	ACTIVE
7785-87-7	Manganese Sulphate	ACTIVE
1303-96-4	Disodium tetraborate, decahydrate	ACTIVE

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· Hazardous Air Pollutants		
7785-87-7	Manganese Sulphate	
· California Proposition 65:		
· Chemicals known to cause cancer:		
None of the ingredients are listed.		
· 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:		
6484-52-2	Ammonium Nitrate	
7757-79-1	Potassium Nitrate	
· New Jersey Special Hazardous Substance List:		
6484-52-2	Ammonium Nitrate	R3
· Pennsylvania Right-to-Know List:		
6484-52-2	Ammonium Nitrate	
7757-79-1	Potassium Nitrate	
1303-96-4	Disodium tetraborate, decahydrate	
· Pennsylvania Special Hazardous Substance List:		
6484-52-2	Ammonium Nitrate	E
· Carcinogenic categories:		
· EPA (Environmental Protection Agency):		
7785-87-7	Manganese Sulphate	D
7446-19-7	Zinc sulfate monohydrate	D, I, II
1303-96-4	Disodium tetraborate, decahydrate	I (oral)
· TLV (Threshold Limit Value established by ACGIH):		
1303-96-4	Disodium tetraborate, decahydrate	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health):		
None of the ingredients are listed.		
· 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-determining components of labeling:		
Ammonium Nitrate		
· Hazard statements:		
H402 Harmful to aquatic life.		
· Precautionary statements:		
P273 Avoid release to the environment.		
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.		

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· **National regulations:**

The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.

· **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.

· **Contact:**

· **Date of last revision/ revision number:** 04/21/2022 / -

· **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
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 Toxicity - Oral 4: Acute toxicity – Category 4
Skin Irritation 2: Skin corrosion/irritation – Category 2
Eye Damage 1: Serious eye damage/eye irritation – Category 1
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A
Toxic to Reproduction 1B: Reproductive toxicity – Category 1B
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3
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

· *** Data compared to the previous version altered.**

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