

**Safety Data Sheet (SDS)**

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

Issue date 02/13/2017

Reviewed on 02/13/2017

**1 Identification**

- **Product Identifier**
- **Trade name: Ferric Ammonium Sulfate**
- **Product Number: ngt-FAS**
- **CAS Number:**  
10138-04-2
- **EC number:**  
231-753-5
- **Index number:**  
026-003-01-4
- **Relevant identified uses of the substance or mixture and uses advised against:**  
No further relevant information available.
- **Product Description Ferric Sulfate (FeS)**
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**  
NuGeneration Technologies, LLC (dba NuGenTec)  
1155 Park Avenue, Emeryville, CA 94608  
salesteam@nugentec.com www.nugentec.com  
1-888-996-8436 or 1-707-820-4080 for product information
- **Emergency telephone number:**  
PERS Emergency Response: Domestic and Canada - 1-800-633-8253, International 1-801-629-0667

**2 Hazard(s) Identification**

- **Classification of the substance or mixture:**



Skin Irrit. 2 H315 Causes skin irritation.

- **Label elements:**
- **GHS label elements**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS07

- **Signal word: Warning**
- **Hazard statements:**  
H315 Causes skin irritation.
- **Precautionary statements:**  
P280 Wear protective gloves.  
P264 Wash thoroughly after handling.  
P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P362+P364 Take off contaminated clothing and wash it before reuse.

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- **Unknown acute toxicity:**  
This value refers to knowledge of known, established toxicological or ecotoxicological values. 100 % 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)**



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

### 3 Composition/Information on Ingredients

- **Chemical characterization:** Substance
- **CAS No. Description**  
10138-04-2 Ferric ammonium sulfate
- **Identification number(s)**
- **EC number:** 231-753-5
- **Index number:** 026-003-01-4

### 4 First-Aid Measures

- **Description of first aid measures:**
- **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 eye irritation occurs, consult a doctor.
- **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.
- **Special hazards arising from the substance or mixture:** No further relevant information available.

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- **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 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:**

14 mg/m3

· **PAC-2:**

160 mg/m3

· **PAC-3:**

950 mg/m3

### 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:** Store in the original container.
- **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:**
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

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- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing and wash before reuse.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

- **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 cannot 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 determined and observed by the manufacturer of the protective gloves.
- **Eye protection:** Not required.

### 9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Powder
Color:	Pale violet octahedral crystals
- **Odor:** Ammonia-like
- **Odor threshold:** Not determined.
- **pH-value:** Not applicable.
- **Change in condition**

Melting point/Melting range:	39-41 °C (102-106 °F)
Boiling point/Boiling range:	230 °C (446 °F)
- **Flash point:** None
- **Flammability (solid, gaseous):** Product is not flammable.
- **Ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.

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· <b>Auto igniting:</b>	Not determined.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density @ 20 °C (68 °F):</b>	1.71 g/cm <sup>3</sup> (14.27 lbs/gal)
· <b>Relative density:</b>	Not determined.
· <b>Vapor density:</b>	Not applicable.
· <b>Evaporation rate:</b>	Not applicable.
· <b>Solubility in / Miscibility with:</b>	
<b>Water:</b>	Insoluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
<b>Organic solvents:</b>	0.0 %
· <b>Other information:</b>	No further relevant information available.

### 10 Stability and Reactivity

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

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

### 12 Ecological Information

· **Toxicity:**

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

· **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.

· **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.

· **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:**

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

· **Uncleaned packagings**

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

### 14 Transport Information

· **UN-Number:**

None

· **DOT, ADR/ADN, ADN, IMDG, IATA**

Non-Regulated Material

· **UN proper shipping name:**

Not Regulated for Transportation

· **DOT, ADR/ADN, ADN, IMDG, IATA**

Non-Regulated Material

· **Transport hazard class(es):**

Not-Regulated

· **DOT, ADR/ADN, ADN, IMDG, IATA**

· **Class:**

Non-Regulated Material

· **Packing group:**

· **DOT, ADR/ADN, IMDG, IATA**

Non-Regulated Material

· **Environmental hazards:**

Not applicable.

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- |   |                        |
|---|------------------------|
| <b>· Special precautions for user:</b>  | Not applicable.        |
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b> | Not applicable.        |
| <b>· UN "Model Regulation":</b>   | Non-Regulated Material |

### 15 Regulatory Information

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

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

Substance is not listed.

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

Substance is not listed.

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

Substance is listed.

**· California Proposition 65:**

**· Chemicals known to cause cancer:**

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

**· New Jersey Right-to-Know List:**

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

**· Pennsylvania Special Hazardous Substance List:**

Substance is not listed.

**· Carcinogenic categories:**

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

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

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- **GHS label elements**

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

- **Hazard pictograms:**



GHS07

- **Signal word:** Warning

- **Hazard statements:**

H315 Causes skin irritation.

- **Precautionary statements:**

P280 Wear protective gloves.

P264 Wash thoroughly after handling.

P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

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P362+P364 Take off contaminated clothing and wash it before reuse.

- **National regulations:**

Non-Regulated Material

- **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 preparation / last revision:** 02/13/2017 / 9

- **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

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

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

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

- **\* Data compared to the previous version altered.**

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