

**SAFETY DATA SHEET**



**125 FSE TRACE MINERAL PREMIX**

**NP24008T01**

Version 1.0

Revision Date 06/19/2015

Print Date 03/30/2016

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : 125 FSE TRACE MINERAL PREMIX

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Use of the Sub-stance/Mixture : Premix for Animal Feeds

**1.3 Details of the supplier of the safety data sheet**

Company : DSM Nutritional Products  
 45 Waterview Blvd  
 US-07054-1298 Parsippany  
 Telephone : (908) 475-7373  
 Telefax : (908) 475-7406  
 E-mail address Responsible/issuing person : sds.nutritionalproducts@dsm.com

**1.4 Emergency telephone number**

1-800-424-9300 (24 HR CHEMTREC, CA & US); Outside CA & US +1-703-741-5970  
 (COLLECT CALLS ACCEPTED)

**SECTION 2. HAZARDS IDENTIFICATION**

**Emergency Overview**

|                |                           |
|----------------|---------------------------|
| <b>CAUTION</b> |                           |
| Appearance     | powder                    |
| Odour          | No information available. |

**GHS Classification**

Combustible dust :  
 Acute toxicity (Oral) : Category 4  
 Serious eye damage : Category 1  
 Specific target organ toxicity - repeated exposure : Category 2

**GHS Label element**

Hazard pictograms :

Signal word : Danger

Hazard statements : May form combustible dust concentrations in air  
 H302 Harmful if swallowed.  
 H318 Causes serious eye damage.  
 H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements : **Prevention:**

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P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/ eye protection/ face protection.

**Response:**

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P315 Get immediate medical advice/ attention.

P330 Rinse mouth.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Potential Health Effects**

- Skin : May cause skin irritation.
- Eyes : Causes eye irritation.
- Ingestion : Harmful if swallowed.  
Harmful or fatal if swallowed.
- Aggravated Medical Condition : Eyes
- Symptoms of Overexposure : No specific symptoms known.

**Carcinogenicity:****IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Additional hazards and advice**

Risk of dust explosion.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Brief description of the product : Mixture

**Hazardous components**

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| Component                      | CAS-No     | Weight percent |
|--------------------------------|------------|----------------|
| basic zinc chloride            | 12167-79-2 | 10 - 20        |
| dicopper chloride trihydroxide | 1332-65-6  | 5 - 10         |
| Manganese amino acid complex   |            | 5 - 10         |
| iron sulphate monohydrate      | 17375-41-6 | 5 - 10         |
| Zinc amino acid complex        |            | 5 - 10         |
| calcium carbonate              | 471-34-1   | 1 - 5          |

**SECTION 4. FIRST AID MEASURES**

- General advice** : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.
- If inhaled** : Move to fresh air.  
Consult a physician after significant exposure.
- In case of skin contact** : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
If symptoms persist, call a physician.
- In case of eye contact** : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
Continue rinsing eyes during transport to hospital.  
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
- If swallowed** : Clean mouth with water and drink afterwards plenty of water.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Obtain medical attention.  
Do NOT induce vomiting.
- Most important symptoms and effects, both acute and delayed** : No specific symptoms known.
- Notes to physician** : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES****Flammable properties**

Flash point : Not applicable

**Fire fighting**Suitable extinguishing media : Water  
Foam

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

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Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Consider dust explosion hazard.

**Protective equipment and precautions for firefighters**

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Use personal protective equipment.  
Ensure adequate ventilation.  
Avoid dust formation.  
Avoid breathing dust.

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.  
Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

Advice on safe handling : Avoid formation of respirable particles.  
Avoid exceeding the given occupational exposure limits (see section 8).  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Dispose of rinse water in accordance with local and national regulations.  
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Avoid dust formation.  
Provide appropriate exhaust ventilation at places where dust is formed.  
Take precautionary measures against static discharges.

Conditions for safe storage : Store at room temperature.  
Keep container tightly closed and dry.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

| Components | CAS-No. | Value type (Form of | Control parameters / Permissible | Basis |
|------------|---------|---------------------|----------------------------------|-------|
|            |         |                     |                                  |       |

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|                                |            | exposure)        | concentration                   |           |
|--------------------------------|------------|------------------|---------------------------------|-----------|
| dicopper chloride trihydroxide | 1332-65-6  | TWA              | 1 mg/m <sup>3</sup><br>(Copper) | NIOSH REL |
| iron sulphate monohydrate      | 17375-41-6 | TWA              | 1 mg/m <sup>3</sup><br>(Iron)   | ACGIH     |
|                                |            | TWA              | 1 mg/m <sup>3</sup><br>(Iron)   | OSHA P0   |
|                                |            | TWA              | 1 mg/m <sup>3</sup><br>(Iron)   | NIOSH REL |
| calcium carbonate              | 471-34-1   | TWA (Respirable) | 5 mg/m <sup>3</sup>             | NIOSH REL |
|                                |            | TWA (total)      | 10 mg/m <sup>3</sup>            | NIOSH REL |

**Personal protective equipment**

- Respiratory protection** : In the case of dust or aerosol formation use respirator with an approved filter.
- Hand protection** : Glove material: for example nitrile rubber
- Consider the hazard characteristics of this product and any special workplace conditions when selecting the appropriate type of protective gloves.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Eye protection** : Safety glasses with side-shields  
Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection** : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures** : Avoid contact with skin, eyes and clothing.  
Wash hands before breaks and immediately after handling the product.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

- Appearance** : powder
- Odour** : No information available.
- Odour Threshold** : No information available.
- pH** : No data available
- Melting point/range** : not determined
- Boiling point/boiling range** : not determined
- Flash point** : Not applicable
- Flammability (solid, gas)** : May form combustible dust concentrations in air
- Vapour pressure** : Not applicable
- Relative vapour density** : Not applicable
- Density** : not determined
- Water solubility** : not determined

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Partition coefficient: n-octanol/water : Not applicable  
Auto-ignition temperature : No data available  
Thermal decomposition : No data available  
Explosive properties : No data available  
Oxidizing properties : No data available

### 9.2 Other information

No data available

## SECTION 10. STABILITY AND REACTIVITY

Reactivity : No hazards to be specially mentioned.  
Chemical stability : Stable under recommended storage conditions.  
Possibility of hazardous reactions : Dust may form explosive mixture in air.  
Conditions to avoid : Heat  
Incompatible materials : Strong acids and strong bases  
Strong oxidizing agents  
Hazardous decomposition products : No decomposition if used as directed.

## SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Acute toxicity estimate : 1,307 mg/kg  
(Calculation method)  
Skin irritation : May cause skin irritation in susceptible persons.  
Eye irritation : May irritate eyes.  
####STOT - repeated exposure  
Manganese amino acid complex : May cause damage to organs through prolonged or repeated exposure.  
Experience with human exposure: Ingestion  
iron sulphate monohydrate : Liver: Liver disorders  
Gastrointestinal tract: Stomach/intestinal disorders

## SECTION 12. ECOLOGICAL INFORMATION

Toxicity

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Toxicity to fish  
dicopper chloride trihydroxide : Fish  
LC50 (96 h) ca. 1.4 mg/l

Toxicity to daphnia and other aquatic invertebrates  
dicopper chloride trihydroxide : Crustaceans  
EC50 (48 h) ca. 0.03 mg/l

No data is available on the product itself.

**Persistence and degradability**

No data is available on the product itself.

**Bioaccumulative potential**

Bioaccumulation : No data available

Partition coefficient: n-  
octanol/water : Not applicable

**Mobility in soil**

Distribution among environ-  
mental compartments : No data available

**Results of PBT and vPvB assessment**

Assessment : Not applicable

**Other adverse effects**

Regulation 40 CFR Protection of Environment; Part 82 Protection of  
Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a  
Class I or Class II ODS as defined by the U.S. Clean Air Act  
Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological informa- : Very toxic to aquatic organisms, may cause long-term adverse  
tion effects in the aquatic environment.

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Discharge into the environment must be avoided.  
Do not contaminate ponds, waterways or ditches with chemi-  
cal or used container.  
Do not dispose of waste into sewer.  
Offer surplus and non-recyclable solutions to a licensed dis-  
posal company.

User must determine if any wastes generated exhibit hazard-  
ous characteristics as per 40 CFR Part 261 or other national /  
local legislation.

Contaminated packaging : Dispose of as unused product.  
Do not re-use empty containers.

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**SECTION 14. TRANSPORT INFORMATION****International Regulation****IATA-DGR**

UN/ID No. : UN 3077  
 Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
 (dicopper chloride trihydroxide, Zinc amino acid complex)  
 Class : 9  
 Packing group : III  
 Labels : Miscellaneous Dangerous Goods  
 Packing instruction (cargo aircraft) : 956  
 Packing instruction (passenger aircraft) : 956

**IMDG-Code**

UN number : UN 3077  
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,  
 N.O.S.  
 (dicopper chloride trihydroxide, Zinc amino acid complex)  
 Class : 9  
 Packing group : III  
 Labels : 9  
 EmS Code : F-A, S-F  
 Marine pollutant : yes

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations****49 CFR**

UN/ID/NA number : UN 3077  
 Proper shipping name : Environmentally hazardous substances, solid, n.o.s.  
 (dicopper chloride trihydroxide, Zinc amino acid complex)  
 Class : 9  
 Packing group : III  
 Labels : CLASS 9  
 ERG Code : 171  
 Marine pollutant : yes (dicopper chloride trihydroxideZinc amino acid complex)  
 Remarks : No additional requirements.

**SECTION 15. REGULATORY INFORMATION**

TSCA list : Not relevant  
 Not relevant

**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|------------|---------|--------------------|-----------------------------|
|            |         |                    |                             |



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|          |           |     |   |
|----------|-----------|-----|---|
| selenium | 7782-49-2 | 100 | * |
| selenium | 7782-49-2 | 10  | * |

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

| Components      | CAS-No.    | Component RQ (lbs) | Calculated product RQ (lbs) |
|-----------------|------------|--------------------|-----------------------------|
| sodium selenite | 10102-18-8 | 100                | *                           |

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

|                                |           |          |
|--------------------------------|-----------|----------|
| dicopper chloride trihydroxide | 1332-65-6 | 9.8027 % |
|--------------------------------|-----------|----------|

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

|                 |            |          |
|-----------------|------------|----------|
| sodium selenite | 10102-18-8 | 0.0098 % |
|-----------------|------------|----------|

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

|                 |            |          |
|-----------------|------------|----------|
| sodium selenite | 10102-18-8 | 0.0098 % |
|-----------------|------------|----------|

**Massachusetts Right To Know**

|                            |            |           |
|----------------------------|------------|-----------|
| quartz (SiO <sub>2</sub> ) | 14808-60-7 | 0 - 0.1 % |
| sodium selenite            | 10102-18-8 | 0 - 0.1 % |

**Pennsylvania Right To Know**

|                                |              |           |
|--------------------------------|--------------|-----------|
| Manganese Hydroxychloride      | 39438-40-9   | 10 - 20 % |
| basic zinc chloride            | 12167-79-2   | 10 - 20 % |
| dicopper chloride trihydroxide | 1332-65-6    | 5 - 10 %  |
| Manganese amino acid complex   | Not Assigned | 5 - 10 %  |
| iron sulphate monohydrate      | 17375-41-6   | 5 - 10 %  |
| Zinc amino acid complex        | Not Assigned | 5 - 10 %  |
| selenium                       | 7782-49-2    | 0 - 0.1 % |

**New Jersey Right To Know**

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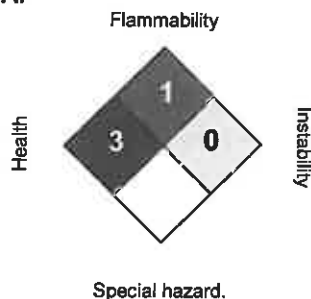
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|                                |              |           |
|--------------------------------|--------------|-----------|
| Manganese Hydroxychloride      | 39438-40-9   | 10 - 20 % |
| basic zinc chloride            | 12167-79-2   | 10 - 20 % |
| dicopper chloride trihydroxide | 1332-65-6    | 5 - 10 %  |
| Manganese amino acid complex   | Not Assigned | 5 - 10 %  |
| iron sulphate monohydrate      | 17375-41-6   | 5 - 10 %  |

The components of this product are reported in the following inventories:

|      |                                |
|------|--------------------------------|
| TSCA | : Not On TSCA Inventory        |
|      | : Manganese Hydroxychloride    |
|      | : basic zinc chloride          |
|      | : Manganese amino acid complex |
|      | : iron sulphate monohydrate    |
|      | : Zinc amino acid complex      |

**SECTION 16. OTHER INFORMATION****Further information****NFPA:****HMIS III:**

|                 |    |
|-----------------|----|
| HEALTH          | 3* |
| FLAMMABILITY    | 1  |
| PHYSICAL HAZARD | 0  |

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Abbreviations:** ACGIH = American Conference of Governmental Industrial Hygienists. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act. CFR = Code of Federal Regulations. CPR = Controlled Products Regulations. DSL = Canadian Domestic Substance List. DOT = Department of Transportation. EINECS = European Inventory of New and Existing Chemical Substances. EPA = Environmental Protection Agency. HCS = Hazardous Communication Standard. HEPA = High Efficiency Particulate Air. HMIS = Hazardous Material Identification System. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IMDG = International Maritime Dangerous Good. NFPA = National Fire Protection Association. NIOSH = National Institute of Occupa-

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