SAFETY DATA SHEET

1. Identification

Product identifier
NITROFORM® fertilizer

Other means of identification

Synonyms
NITROFORM® fertilizer 39-0-0 Mini * NITROFORM® fertilizer Standard 39-0-0 * NITROFORM® fertilizer Powder 39-0-0

Product code
KAS_NITROFORM_AU_EN

Recommended use of the chemical and restrictions on use

Recommended use
Fertiliser.

Restrictions on use
Use in accordance with supplier's recommendations.

Details of manufacturer or importer

Manufacturer
Koch Agronomic Services, LLC
4111 E 37th St N
Wichita, KS 67220 US
kochmsds@kochind.com
1.866.863.5550

Emergency
For Chemical Emergency
Call CHEMTREC day or night
USA/Canada - 1.800.424.9300
Mexico - 1.800.681.9531
Outside USA/Canada - 1.703.527.3887
(collect calls accepted)

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards
Not classified.

Health hazards
Not classified.

Environmental hazards
Not classified.

Label elements, including precautionary statements

Hazard symbol(s)
None.

Signal word
None.

Hazard Statement(s)
The mixture does not meet the criteria for classification.

Precautionary Statement(s)

Prevention
Observe good industrial hygiene practices.

Response
Wash hands after handling.

Storage
Store away from incompatible materials.

Disposal
Dispose of waste and residues in accordance with local authority requirements.

Other hazards which do not result in classification
None known.

Supplemental information
None.

3. Composition/information on ingredients

Mixture

Identity of chemical ingredients
Urea formaldehyde polymer

CAS number and other unique identifiers
9011-05-6

Concentration of ingredients
99 - 100
Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This Safety Data Sheet is not a guarantee of product specification or NPK value(s). NPK content is on specified sales orders, customer invoices, or product specification sheets obtained from supplier.

4. First-aid measures

**Description of necessary first aid measures**

- **Inhalation**: Move to fresh air. Get medical attention if any discomfort continues.
- **Skin contact**: Wash with soap and water. Get medical attention if irritation develops or persists.
- **Eye contact**: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
- **Ingestion**: Rinse mouth. Get medical attention if any discomfort continues.

**Personal protection for first-aid responders**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**Symptoms caused by exposure**

- **Eye contact**: Symptoms can include irritation, redness, scratching of the cornea, and tearing.
- **Skin contact**: Mild skin irritation.
- **Dust may irritate throat and respiratory system and cause coughing.**

**Medical attention and special treatment**

Treat symptomatically.

5. Fire-fighting measures

**Extinguishing media**

- **Suitable extinguishing media**: Water fog. Water spray. Carbon dioxide (CO2). Foam.

- **Unsuitable extinguishing media**: None known.

**Specific hazards arising from the chemical**

Irritating and toxic gases or fumes may be released during a fire.

**Special protective equipment and precautions for fire fighters**

Self-contained breathing apparatus and full protective clothing should be worn when fighting chemical fires. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

**Fire fighting equipment/instructions**

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do it without risk.

**Hazchem Code**

None.

**General fire hazards**

Bulk material is non-combustible. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

**Specific methods**

Move container from fire area if it can be done without risk. Cool containers with flooding quantities of water until well after fire is out.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

- **For non-emergency personnel**

  Avoid inhalation of dust and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing. For personal protection, see section 8 of the SDS.

- **For emergency responders**

  Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection recommended in Section 8 of the SDS.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers or watercourses.

**Methods and materials for containment and cleaning up**

Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. After removal flush contaminated area thoroughly with water.

Never return spills to original containers for re-use.
Other issues relating to spills and releases

Clean up in accordance with all applicable regulations.

7. Handling and storage

Precautions for safe handling

Keep away from all ignition sources including heat, sparks and flame. Minimise dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Avoid inhalation of dust and contact with skin and eyes. Use only with adequate ventilation. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool, dry, well-ventilated place. Store away from incompatible materials.

8. Exposure controls and personal protection

Control parameters

Follow standard monitoring procedures.

Occupational exposure limits

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust (CAS -)</td>
<td>TWA</td>
<td>3 mg/m3</td>
<td>Respirable particles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m3</td>
<td>Inhalable particles.</td>
</tr>
</tbody>
</table>

UK. EH40 Workplace Exposure Limits (WELs)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust (CAS -)</td>
<td>TWA</td>
<td>4 mg/m3</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m3</td>
<td>Inhalable dust.</td>
</tr>
</tbody>
</table>

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

<table>
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<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust (CAS -)</td>
<td>TWA</td>
<td>4 mg/m3</td>
<td>Inhalable dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.3 mg/m3</td>
<td>Respirable dust.</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Follow standard monitoring procedures.

Appropriate engineering controls

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks. Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of exposure. Provide eyewash station and safety shower.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection

Wear approved chemical safety goggles. Wear a full-face respirator, if needed.

Skin protection

Hand protection

Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

Other

Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear air supplied respiratory protection if exposure concentrations are unknown. In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Blue powder.
Physical state: Solid.
Form: Powder and granular.
Colour: Blue.
Odour: Not available.
Odour threshold: Not available.
pH: Not available.
Melting point/freezing point: Not available.
Initial boiling point and boiling range: Not available.
Flash point: Not available.
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Upper/lower flammability or explosive limits:
  Flammability limit - lower (%): Not available.
  Flammability limit - upper (%): Not available.
  Explosive limit - lower (%): Not available.
  Explosive limit – upper (%): Not available.
Vapour pressure: Not available.
Vapour density: Not available.
Relative density: Not available.
Solubility(ies):
  Solubility (water): Not available.
Partition coefficient (n-octanol/water): Not applicable.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.
Other physical and chemical parameters:
  Chemical family: Modified Urea Polymer

10. Stability and reactivity
Reactivity Chemical stability: The product is non-reactive under normal conditions of use, storage and transport.
Possibility of hazardous reactions: Stable under normal temperature conditions.
Conditions to avoid: Heat. Extreme temperatures.

11. Toxicological information
Information on possible routes of exposure:
  Inhalation: Dust may irritate respiratory system.
  Skin contact: May cause irritation through mechanical abrasion.
  Eye contact: Dust may irritate the eyes.
  Ingestion: Ingestion may cause irritation and malaise.
Symptoms related to exposure:
  Eye contact: Symptoms can include irritation, redness, scratching of the cornea, and tearing.
  Skin contact: Mild skin irritation. Dust may irritate throat and respiratory system and cause coughing.
Acute toxicity Not expected to be acutely toxic.
Skin corrosion/irritation May cause irritation through mechanical abrasion.
Serious eye damage/irritation May cause irritation through mechanical abrasion.
Respiratory or skin sensitisation
- Respiratory sensitisation Based on available data, the classification criteria are not met.
- Skin sensitisation Not a skin sensitizer.
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.
Reproductive toxicity Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure Inhalation of dusts may cause respiratory irritation.
Specific target organ toxicity - repeated exposure Based on available data, the classification criteria are not met.
Aspiration hazard Not applicable.
Chronic effects Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Prolonged exposure may cause chronic effects.
Other information No other specific acute or chronic health impact noted.

12. Ecological information
Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability No data is available on the degradability of this product.
Bioaccumulative potential Not expected to bioconcentrate or bioaccumulate.
- Partition coefficient
  - n-octanol / water (log Kow) Not applicable.
Mobility in soil Not available.
Other adverse effects No data available.

13. Disposal considerations
Disposal methods Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
Residual waste Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.
Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information
ADG Not regulated as dangerous goods.
RID Not regulated as dangerous goods.
IATA Not regulated as dangerous goods.
IMDG Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information
Safety, health and environmental regulations
National regulations This Material Safety Data Sheet was prepared in accordance with the Australia National Code of Practice for the Preparation of Material Safety Data Sheets (NOHSC: 2011) Additional information is given in the Material Safety Data Sheet. No poison schedule number allocated.
High Volume Industrial Chemicals (HVIC)
Not listed.

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)
Not listed.

National Pollutant Inventory (NPI) substance reporting list
Not listed.

Prohibited Carcinogenic Substances
Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)
Not listed.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)
Not listed.

Restricted Carcinogenic Substances
Not regulated.

International regulations
Stockholm Convention
Not applicable.
Rotterdam Convention
Not applicable.
Kyoto protocol
Not applicable.
Montreal Protocol
Not applicable.
Basel Convention
Not applicable.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* A “Yes” indicates this product complies with the inventory requirements administered by the governing country(s). A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 12-May-2016
Revision date -

Key abbreviations or acronyms used
LD50: Lethal Dose, 50%.
LC50: Lethal Concentration, 50%.

References
ACGIH
EPA: AQUIRE database
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
Disclaimer

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