MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nutricote Total 13-13-13
General Use: Controlled Release Fertilizer
Product Description: Ammonium nitrate based fertilizer coated with resin
MSDS Number: CF13-13-13

MANUFACTURER
Company Name: JCAM AGRI Co., Ltd.
Address: 6-6, Kandasudacho 2-chome, Chiyoda-ku, Tokyo, Japan
Telephone No.: +81-3-5297-8905

EMERGENCY TELEPHONE NUMBER: CANUTEC 1-613-996-6666
: CHEMTREC
United States: (800)424-9300 24 hours Everyday
International: +1-(703)527-3887(Collect) 24 hours Everyday

2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a compound fertilizer coated with polyolefin type resin.

Chemical Composition (Typical Analysis)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>wt%</th>
<th>CAS No.</th>
<th>Chemical Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Nitrate</td>
<td>24.5</td>
<td>6484-52-2</td>
<td>NH₄NO₃</td>
</tr>
<tr>
<td>Monobasic Ammonium Phosphate</td>
<td>19.2</td>
<td>7722-76-1</td>
<td>NH₄H₂PO₄</td>
</tr>
<tr>
<td>Calcium Phosphate</td>
<td>2.9</td>
<td>7757-93-9</td>
<td>CaHPO₄</td>
</tr>
<tr>
<td>Potassium Nitrate</td>
<td>18.7</td>
<td>7757-79-1</td>
<td>KNO₃</td>
</tr>
<tr>
<td>Potassium Sulfate</td>
<td>8.2</td>
<td>7778-80-5</td>
<td>K₂SO₄</td>
</tr>
<tr>
<td>Magnesium Sulfate</td>
<td>9.7</td>
<td>7487-88-9</td>
<td>MgSO₄</td>
</tr>
<tr>
<td>EDTA-Fe(III) Hydrate</td>
<td>1.43</td>
<td>—</td>
<td>C₁₀H₁₂FeN₂O₈Na·3H₂O</td>
</tr>
<tr>
<td>Manganese Sulfate Hydrate</td>
<td>0.18</td>
<td>10034-96-5</td>
<td>MnSO₄·H₂O</td>
</tr>
<tr>
<td>Copper Sulfate Hydrate</td>
<td>0.13</td>
<td>10257-54-2</td>
<td>CuSO₄·H₂O</td>
</tr>
<tr>
<td>Boric acid</td>
<td>0.12</td>
<td>10043-35-3</td>
<td>H₃BO₃</td>
</tr>
<tr>
<td>Disodium Molybdate Hydrate</td>
<td>0.045</td>
<td>10102-40-6</td>
<td>Na₂MoO₄·2H₂O</td>
</tr>
<tr>
<td>Zinc Sulfate Hydrate</td>
<td>0.043</td>
<td>7446-19-7</td>
<td>ZnSO₄·H₂O</td>
</tr>
<tr>
<td>Others *1</td>
<td>5.9</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Polyolefin *2</td>
<td>4.5</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Talc</td>
<td>4.5</td>
<td>14807-96-6</td>
<td>—</td>
</tr>
</tbody>
</table>

*1 Others contain salts of Gypsum, Tricalcium Phosphate etc.
*2 Polyolefin contains polyethylene etc.
3. HAZARDS IDENTIFICATION

WHMIS: Not Regulated

EMERGENCY OVERVIEW:
When heated to decomposition, it emits toxic gases of NOx, SOx and ammonia.

POTENTIAL HEALTH EFFECTS:
- Inhalation: Inhalation of dust may irritate nose, throat, and lungs.
- Eye: Dust from this product may cause particulate discomfort to eyes.
- Skin: Prolonged or repeated direct contact with fertilizer may irritate skin.
- Ingestion: Ingestion of large quantities may lead to symptoms such as headache, dizziness and vomiting.

POTENTIAL ENVIRONMENTAL EFFECTS
The product does not constitute a hazard to the environment.

4. FIRST AID MEASURES

INHALATION: In case of accidental inhalation of fumes from overheating or combustion, move to fresh air. If needed, seek medical attention.

EYE: In case of dust or granule in the eyes, flush with plenty of running water.

SKIN: Wash thoroughly with soap and water.

INGESTION: If conscious, give plenty of water to drink and provoke vomiting. If needed, call a doctor.

PROTECTION TO FIRST-AIDERS: Not Applicable

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: Material is essentially non-flammable.

EXTINGUISHING MEDIA: Water

FIRE FIGHTING INSTRUCTIONS:
- Remove the product from combustible materials as it may support combustion of them.
- When heated to decomposition, it emits toxic fumes of NOx, SOx, and ammonia.
- Remove the product from the source of fire.
- If it is difficult to move, flush with plenty of water.
- Do not enter fire area without self-contained breathing apparatus.
MATERIAL SAFETY DATA SHEET

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL: Sweep up and shovel into suitable containers for disposal. Avoid contact with combustibles. Reuse as fertilizer, if possible.

WATER SPILL: Keep out of water supplies, lakes, ponds, streams and rivers.

7. HANDLING AND STORAGE

HANDLING: Handle in accordance with good industrial hygiene and safety practice. Avoid mixing with fuels, other combustible materials and strong alkaline agents.

STORAGE: The product is hygroscopic and should therefore be stored in a dry place. Store away from reducing agents. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMIT VALUES: Not Established

EXPOSURE CONTROLS

Occupational Exposure Controls

Engineering Controls: No specific controls are needed.

Personal protection: Normally not required. In extremely dusty conditions, appropriate protective equipment is recommended.

Respiratory Protection : Dust mask with particle filter
Hand Protection : Rubber gloves
Eye Protection : Safety goggles
Skin Protection : Normal clean work clothing

Environmental Exposure Controls
Not Available
MATERIAL SAFETY DATA SHEET

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid, Grey granules</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>pH</td>
<td>5.0 (10% Aq.)</td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Flammability</td>
<td>None</td>
</tr>
<tr>
<td>Relative Density</td>
<td>1.1 g/cm³ (Bulk Density)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Fertilizer inside the coating dissolves in water gradually.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: High Heating. See section 5.

STABILITY: Stable

MATERIALS TO AVOID: Strong alkaline agents

HAZARDOUS REACTIONS/ DECOMPOSITION PRODUCTS:
Nitrogen oxides (NOx), Sulfur oxides (SOx), Ammonia

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: No data for mixture.

- Ammonium Nitrate: LD₅₀ (oral, rat) 2217mg/kg (GISAAA 52(8),25,1987)
- Potassium Nitrate: LD₅₀ (oral, rat) 3750mg/kg (NYKZAU 81,469,1983)
- Potassium Sulfate: LD₅₀ (oral, rat) 6600mg/kg (VCBN1* -48,1998)

Eye Irritation: Not irritating. Granules may cause temporary mechanical eye irritation.
Skin Irritation: Not irritating.
Sensitization: None known.
Mutagenicity: None known.
ECOTOXICITY: Large amounts of product released to water systems will be harmful to aquatic plant and animal life.

PERSISTENCE AND DEGRADABILITY:
Fertilizer granules are soluble in water and biodegradable.
Coating materials are persistent and not biodegradable.

BIOACCUMULATIVE POTENTIAL: Not available.

DISPOSAL CONSIDERATIONS
Safe disposal methods: Uncontaminated product may be reused as fertilizer.
Classify waste under applicable federal, state and local regulations.
Do not dump this product into sewers, on the ground or into any body of water.

TRANSPORT INFORMATION:

US DEPARTMENT OF TRANSPORTATION (DOT)
DOT Land – Not Regulated when transported domestically over land.

SEA TRANSPORT
IMDG
Class: 9
Packing Group(PG): III
UN Number: 2071
Proper Shipping Name: Ammonium Nitrate Based Fertilizer
Marine Pollutant: Not Applicable

AIR TRANSPORT
ICAO/IATA
Class: 9
Packing Group(PG): Not Applicable
UN Number: 2071
Proper Shipping Name: Ammonium Nitrate Based Fertilizer

TRANSPORT CANADA
TDG: Not Regulated
15. REGULATORY INFORMATION

TSCA STATUS: see 2. COMPOSITION/INFORMATION ON INGREDIENTS
CERCLA REPORTABLE QUANTITY (40CFR117,302): None
SARA TITLE III
   SECTION 302 (40 CFR 355) : None
   SECTION 311/312 (40 CFR 370)
      1. Immediate (Acute) Health Effect; No
      2. Delayed (Chronic) Health Effect; No
      3. Fire Hazard; No
      4. Sudden Release of Pressure Hazard; No
      5. Reactivity Hazard; No
   SECTION 313 (40 CFR 372) : None
WHMIS: Not Regulated

This Product has been classified according to the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the CPR.

Please refer to any other federal, state and local regulations.

16. OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Chisso-Asahi Fertilizer Co., Ltd.

It relates only to the specific product designated herein, and does not relate to use in combination with any other material or process. Chisso-Asahi Fertilizer Co., Ltd. assumes no legal responsibility for use or reliance upon this information.