



**ULINK AGRITECH PRIVATE LIMITED**  
**MATERIAL SAFETY DATA SHEET : NANOVITA NITROGEN (NPK 32:00:00)**

**1: IDENTIFICATION**

Chemical Name	Urea, Ammonium Nitrate	<b>Trade Name</b> <b>NANOVITA NITROGEN (NPK 32:00:00)</b>
Synonyms	Carbamide, Ammonium Nitrate	
Uses	Fertilizer	<b>Molecular Formula</b> <chem>CH4N2O + NH4NO3</chem>
Manufacturer/ Supplier	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra	
Emergency Contact	9503095030	E-mail <a href="mailto:info@agrostar.in">info@agrostar.in</a>

**2: COMPOSITION/INFORMATION OF INGREDIENTS**

Chemical Name	CAS #	Percent or Content (w/w)
Ammonium Nitrate	6484-52-2	30-50%
Urea	57-13-6	20-40%

**3: HAZARD IDENTIFICATION**

**GHS US Classification:** Serious eye damage/eye irritation, Category 2B      H320: Causes eye irritation.

**GHS US Labeling:**      Signal word (GHS US): Warning  
Hazard statements (GHS US): H320 - Causes eye irritation

**Other Hazards:**      No additional information is available

**4: FIRST AID MEASURES**

**General:** Have the product container, label or safety data sheet while seeking medical attention, a poison control center or physician, or going for treatment.

**Inhalation:** Move person to fresh air and keep warm and at rest in a position comfortable for breathing. Allow the person to rest. Immediately seek medical attention if symptoms are severe or persist.

**Ingestion:** Rinse mouth with water thoroughly and give water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention immediately and show this container or label.

**Skin Contact:** In case of contact with product, wash immediately skin area with plenty of water and soap. Speed in removing material from skin is extremely important. Remove and isolate contaminated clothing and shoes. Seek medical attention.

**Eye Contact:** Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

**Most Important Symptoms/ Effects, Acute and Delayed:**

Symptoms/effects after inhalation: None under normal conditions.      Symptoms/effects after eye contact: Causes eye irritation. Mild eye irritation.

Symptoms/effects after skin contact: None under normal conditions      Symptoms/effects after ingestion: None under normal conditions

**Note to Physician:** No specific Antidote. Treat symptomatically.

**5: FIRE FIGHTING MEASURES**

**Extinguishing Media:** Water fog, alcohol-resistant foam, dry chemical powder or carbon dioxide

**Unsuitable Extinguishing Media:** Heavy water stream      **Specific Hazard:** No fire hazard. No direct explosion hazard.

**Hazardous Thermal (de)composition:** Toxic fumes may be released

**Special Procedures:** Do not discharge extinguishing water into the drain or water bodies. If risk of water pollution occurs, notify appropriate authorities. Move containers away from area if it can be done without risk. If possible without risk, remove containers from fire zone, cool with water spray. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Dike area to prevent water runoff.

**Protection of Fire Fighters:** Do not breathe the fumes. Approach fire from up wind. Wear a self contained breathing apparatus and complete protective clothes. Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment.

**6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Ventilate spillage area. Use personal protective equipment including suitable protective clothing, gloves and eye or face protection. Evacuate personnel to safe areas. Stop leak if safe to do so.

**Environmental Precaution:** Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters

**Methods for Cleaning-up:** Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Dispose of materials or solid residues at an authorized site.

**7: HANDLING & STORAGE**

**Handling:** Ensure good ventilation of the work station. Do not smoke, drink, or eat during handling. Wash hands and other exposed areas with soap and water before and after handling the product. Good personal hygiene procedures must be practiced. Provide good ventilation in process area to prevent formation of vapor. Avoid contact with skin and eyes. Wear personal protective equipment.

**Storage:** Store in dry, cool and well-ventilated area away from heat. Keep in original container and tightly closed when not in use. Keep out of reach of children. Use normal safety procedure and good personal hygiene.

**8: EXPOSURE CONTROL/PERSONAL PROTECTION**

**Engineering Measures:** Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.

**General Protection:** Avoid contact with eyes and skin. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

**Personal Protection:** Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

**Respiratory Protection:** Always use NIOSH/MSHA approved respiratory protection equipment .

**Skin Protection:** Wear suitable protective working clothing to avoid skin contact. Any clothing or other absorbent material which has been drenched or heavily contaminated must be discarded.

**Hand Protection:** Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

**Eye Protection:** Wear safety glasses with side shields or goggles for eyes protection should be used. Safety showers and eyewash should be easily available.

**Others:** Wash clothing before reusing.

## 9: PHYSICAL/CHEMICAL PROPERTIES

**Appearance:** Liquid

**Colour:** Colorless Commonly dyed blue or green

**Odour:** Odourless In moist air: Ammonia odour

**Solubility in Water:** Soluble

**Physical State:** Liquid

**Flammability (solid, gas):** Non flammable.

**Boiling Point [°C]:** 122

**pH:** 6.5 – 7

## 10: STABILITY & REACTIVITY

**Stability:** Stable under normal circumstances.

**Hazardous Reactions:** Not established.

**Hazardous Decom. Products:** The decomposition products may include NH<sub>3</sub>, SO<sub>x</sub>, PO<sub>x</sub>, CO<sub>x</sub>.

**Material to Avoid:** Strong acids and bases, Oxidizers, Organic materials

**Conditions to Avoid:** Heat and sources of ignition. Direct sunlight. Extremely high or low temperatures.

## 11: TOXICOLOGICAL INFORMATION

**Ammonium nitrate:** Oral LD50 (Rat) [mg/Kg]: 2950 Dermal LD50 (Rat) [mg/Kg]: >5000 Inhalation LD50 (Rat) [mg/L]: >88.8

**Urea:** Oral LD50 (Rat) [mg/Kg]: 8471 Dermal LD50 (Rat) [mg/Kg]: > 3200 Dermal LD50 (Rabbit) [mg/Kg]: > 21000

## 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

**Acute Hazard to the Aquatic Environment:** Not classified

**Chronic Hazard to the Aquatic Environment:** Not classified

**Ammonium Nitrate:** LC50 - Fish: 447 mg/l (48 h) EC50 - Crustacea: 490 mg/l (48 h) ErC50 Algae: > 1700 mg/l (10 day(s))

**Urea:** LC50 - Fish [1]: > 6810 mg/l (96 h) LC50 - Fish [2]: 17500 mg/l (96 h) EC50 - Crustacea [1]: > 10000 mg/l (48 h)

EC50 - Crustacea [2]: > 10000 mg/l (48 h) EC50 72h - Algae [1]: 24541.9 mg/l EC50 96h - Algae [1]: 42184 mg/l

TLM - Fish [1]: 17500 ppm (96 h; Poecilia reticulata) Threshold limit - Other aquatic organisms [1]: 120000 mg/l (16 h; Bacteria; Toxicity test)

Threshold limit - Other aquatic organisms [2]: > 10000 mg/l (Pseudomonas putida)

Threshold limit - Algae [1]: > 10000 mg/l (168 h; Scenedesmus quadricauda; Growth rate)

Threshold limit - Algae [2]: 47 mg/l (192 h; Microcystis aeruginosa; Growth rate)

**Persistence and Degradability:** Ammonium nitrate: Biodegradable in water and soil

Urea: Inherently biodegradable, Hydrolysis in water, Not established.

Product: Not established

**Bioaccumulative Potential:** Not applicable

**Mobility in Soil:** Ammonium nitrate: No data available Urea: Highly mobile in soil

## 13: DISPOSAL CONSIDERATION

**Waste-disposal Procedures:** Recover and place material in a suitable container for intended use or disposal. Dispose of this product only according to the label or in compliance with government requirements or local regulations. Do not contaminate drains, streams, rivers or waterways with the chemical or used container.

**Contaminated Packaging:** Empty remaining contents and the rinse containers before disposal thrice. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## 14: TRANSPORT INFORMATION

**UN No.:** Not regulated for transport

**Proper Shipping Name:** Not regulated

**Land Transport (ADR/RID):** Not regulated

**Sea Transport (IMO/IMDG):** Not regulated

**Air Transport (IATA/ICAO):** Not regulated

## 15: REGULATORY INFORMATION

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

**H-Statements:** H320 - Causes eye irritation

## 16: OTHER INFORMATION

**DISCLAIMER OF LIABILITY** The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

----- END -----