

1: IDENTIFICATION

Chemical Name	Urea, Ammonium dihydrogen phosphate, Potassium chloride	Trade Name NPK 19:19:19 (T.E)
Synonyms	NPK 19:19:19, Nitrogen (N), Phosphorus (P ₂ O ₅), Potassium (K ₂ O)	
Uses	Fertilizer	Molecular Formula H ₆ NO ₄ P + CH ₄ N ₂ O + KCl
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 info@agrostar.in

2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Monoammonium Phosphate	7722-76-1	36.60%
Urea	57-13-6	32.70%
Potassium chloride	7447-40-7	30.70%

3: HAZARD IDENTIFICATION**Human Health Hazard :**

Inhalation: Minimal hazard under normal use. Dust may cause mechanical irritation to respiratory membranes.

Ingestion: Ingestion of large quantities may cause gastrointestinal discomfort, vomiting, or weakness. Overdose symptoms include diarrhea, nausea, abdominal cramps, methemoglobinemia, irregular heartbeat, dehydration, or hypertension. Seek medical attention for overdose.

Skin Contact: Possible slight abrasion with prolonged contact (e.g., around cuffs/collars).

Eye Contact: Dust may cause particulate discomfort to the eyes.

Other Consideration:

Carcinogenicity: This product is not listed as carcinogenic by ACGIH, EPA, IARC, OSHA, or NTP.

Pre-existing Medical Conditions: Exposure may aggravate kidney disorders.

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. Immediately seek medical attention if symptoms are severe or persist.

Ingestion: Rinse mouth with water thoroughly and give water to drink. 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.

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 : During extremely high temperature conditions, the product may reach melting point and decompose to release NH₃, SO_x, PO_x, CN, CO_x. Heating mixtures of urea and oxidizers can be dangerous. Hypochlorites react with urea to form nitrogen trichloride that explodes spontaneously in air. Urea nitrate can be formed when urea is contacted with nitric acid. Urea nitrate can explode with friction.

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 a fumes. Approach fire from up wind. Wear a self contained breathing apparatus and complete protective clothes.

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.

Environmental Precaution: Keep out of all water bodies (water supplies, lakes, ponds, streams, rivers). This product is a fertilizer and will promote algae growth, potentially degrading water quality and taste.

Methods for Cleaning-up: Use appropriate tools to place the spilled material into a suitable container for intended use, recycling, or disposal. In case of large spill, prevent additional the discharge of material if safe to do so. Prevent entry into sewers, watercourses, or wells. Notify downstream water users. Recover and place the material in suitable containers for recycle, reuse, or disposal.

7: HANDLING & STORAGE

Precautions : Hygroscopic if relative humidity is over 76%. Contamination with ammonium nitrate fertilizers increases hygroscopicity of urea.

Handling: If user operations generate dust, fumes or mists, use ventilation to keep exposure to airborne contaminants below the exposure limit. 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.

Storage: Store in dry, cool and well-ventilated area. Prevent spillage and separate from strong oxidizers. Keep in original container and tightly closed when not in use. Keep out of reach of children. Avoid using containers, pipes and fittings made of zinc-clad or copper bearing alloys that are corroded by ammonia. 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: In dusty condition, use 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 : Multicoloured prills or granules

Colour : Multicolour

Odour : Saline/ammonia

Solubility in Water : Soluble , Phosphate component – 87 g/100 g water

Potash component – 34.2 g/100 mL water

Urea component - 67g/100 g water

Odour Threshold : 17 ppm as NH3

Boiling Point [°C] : Not applicable; mixture

Physical State : Solid

10:STABILITY & REACTIVITY

Stability: Stable under normal circumstances.

Conditions to Avoid: high temperatures (over 130°C)

Hazardous Decom. Products: The decomposition products may include NH3, SOx, POx, CN, COx.

Material to Avoid: Strong oxidizing agents such as hypochlorites, nitric acid, sodium nitrite, phosphorus pentachloride and nitrosyl perchlorate. Prolonged contact may cause oxidation of unprotected metals. Contamination of solid urea with solid ammonium nitrate or phosphatic fertilizers increases the hygroscopicity of urea.

Corrosivity : Slightly corrosive to steel, aluminum, zinc, and copper. Non-corrosive in presence of glass or stainless steel.

Hazardous Reactions : Polymerization will not occur.

Other : Absorbs moisture from the air. Hygroscopic; Keep containers tightly closed. Avoid contact with moisture. Slow hydrolysis will produce corrosive acids

11: TOXICOLOGICAL INFORMATION

Routes of Exposure : Ingestion, Inhalation

LD50 (Rat, oral) : 2000 mg/kg (phosphate component; other components less toxic)

Toxicity/Special Remarks : Very low toxicity for humans/animals under normal, responsible use. Urea can be a feed supplement but is harmful to wildlife/livestock if ingested in high, unmixed quantities. Clean up spills to prevent animal overexposure.

Other Effects on Humans : May cause irritation of mucous membranes and the upper respiratory tract.

12: ECOLOGICAL INFORMATION

Ecotoxicity: The product may be toxic to aquatic life in large quantities.

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

This product is not regulated for transport.

DOT Hazard Class : Not regulated

IMDG Class : Not regulated

15: REGULATORY INFORMATION

OSHA Status : Not Applicable

CERCLA reportable quantity : Not Applicable

TSCA Status : Not Applicable

RCRA Status : Not Applicable

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 -----