



**FERT
TRADE**

COMMERCIAL FERTILISER PRODUCTS AND SERVICES

Fertco 2016 Ltd
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NSMART

Controlled Release Nitrogen

43-0-0+TE

Product Analysis

Total Nitrogen (N) -----	43.0%
N- NO ₃ -----	0%
N- NH ₄ -----	0%
N- CO(NH ₂) ₂ -----	43.0%
Total Phosphorus (P ₂ O ₅) -----	0%
0.0% soluble in neutral ammonium citrate sol.	
0.0% water soluble	
Total Potassium (K ₂ O)-----	0%
0% water soluble	
Trace element (TE)-----	1.0%
Copper (Cu) EDTA -----	0.002%
Zinc (Zn) EDTA-----	0.016%
Magnesium (Mg) EDTA -----	0.020%
Boron (B)-----	0.018%
Iron (Fe) EDTA -----	0.020%
Manganese (Mn) EDTA -----	0.034%
Calcium (Ca) EDTA -----	0.005%
Mo (Molybdenum)-----	0.0001%
Moisture-----	0.1-0.5%
Bulk density-----	720-820kg/m ³

Nutrients are derived from urea nitrogen.

Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name : NSmart
Chemical formula : Not applicable / Mixture
Chemical name : N-P-K fertilizer
Material user : Fertilizers.
Prepared by : Fert Trade a division of Fertco 2016 Ltd
Emergency Telephone : 0800 CHEMICALL (0800 243 622)

Date prepared: 2019

Section 2. Hazard Identification

Physical state: Solid. (Granular solid.)
Emergency: No specific hazard.
Overview: Follow good industrial hygiene practice. Seal properly after usage.
Store under cool dry conditions. Keep out of the reach of children.
Routes of entry: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects
Eyes: May cause eye irritation
Skin: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.
Potential chronic: Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
Health effects: Mutagenic effects: Not available.
Teratogenic effects: Not available.
Medical conditions aggravated by over- exposure: Repeated exposure of the eyes to a low level of dust can produce eye irritation.

See toxicological information (Section 11.)

Section 3. Composition Information on Ingredients

	CAS number	Concentration
Urea	57-13-6	90-100

This material is classified as not hazardous under OSHA regulations.
See section 8 and 11 for details

Section 4. First Aid measures

Eye contact:	In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
Skin contact:	Wash with soap and water. Get medical attention if symptoms occur.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
Ingestion:	Do not include vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Section 5. Fire fighting measures

Flammability of the Product:	Non-flammable.
Products of combustion:	Thermal decomposition products are dependent on temperature conditions.
Fire- fighting media and instructions:	Use an extinguishing agent suitable for the surrounding fire.
Special protective equipment for fire-fighters:	Not considered an oxidizer because of the prilled/ coated form of the salts Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face- piece operated in positive pressure mode.
Special remarks on fire Hazards:	Non- combustible
Special remarks on explosion hazards:	Non- explosion under normal conditions. Not considered on oxidizer because of the prilled/ coated form of the salts.

Section 6. Accidental release measures

Personal precautions:	Use suitable protective equipment.
Environmental precautions:	Avoid dispersal of spilled material, runoff and contact with waterways, drains and sewers.
Methods for cleaning up:	Use a tool to scoop up solid or absorbed material and place into appropriate labeled waste container. Avoid creating dusty conditions and prevent wind dispersal.

Section 7. Handling and storage

Handling:	In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
Storage:	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure controls, personal protection

Engineering controls:	Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
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Personal Protection

Eyes:	Not require under normal conditions of uses. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to dusts.
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Respiratory:	A respirator is not needed under normal and intended conditions of product uses. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.
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Hands:	Not required under normal conditions of uses. Gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
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Skin/ body:	No special protective clothing is required.
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Personal protection in case of a large spill:	Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH- approved self-contained breathing apparatus or equivalent and full protective gear.
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Consult local authorized for acceptable exposure limits.

Section 9. Physical and chemical properties

Physical states:	Solid. (Granular solid.)
Color:	Brown, red, yellow, white and/ or blue.
Odor:	Odorless.
Molecular Weight:	Not applicable / Mixture.
Molecular formula:	Not applicable / Mixture.
pH:	Not applicable because low solubility in water.
Melting/ Freezing point:	Decomposition temperature: >200°C
Bulk density:	0.7 to 1.1 g/cm ³ .
Vapor pressure:	Not applicable.
Vapor density:	Not applicable.
Volatility:	Non-volatile.

Odor threshold:	Not available.
Evaporation rate:	Not available.
VOC:	Not an organic solvent.
Viscosity:	Not applicable.
LogKow:	Not applicable because of low solubility in water.
Ionicity (in water):	See below.
Solubility:	Dissolve very slowly, polymer coating is insoluble.

Section 10. Stability and reactivity

Stability and reactivity:	Stable under recommended storage and handling conditions (see section 7).
Conditions of instability:	Elevated temperatures. Avoid all possible sources of ignition (spark of flame).
Incompatibility with various substances:	Reactive with reducing materials, metals, acids, alkalis and organic materials.
Hazardous decomposition products:	Under fire- oxides of nitrogen, phosphorous, potassium when strongly heated it melts and decomposes releasing toxic fumes. In contact with alkaline materials it may release ammonia gas.
Hazardous polymerization:	Will not occur

Section 11. toxicological information

Toxicity data

<u>Ingredient name</u>	<u>Test</u>	<u>Results</u>	<u>Route</u>	<u>Species</u>
Urea	LD50	8471 mg/kg	Oral	Rat

Acute Effects

Eyes:	May cause eye irritation.
Skin:	No known significant effects or critical hazards.
Inhalation:	No known significant effects or critical hazards.
Ingestion:	No known significant effects or critical hazards.
Potential chronic health effects	Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. Mutagenic effects: Not available. Teratogenic effects: Not available.
Special remarks on chronic effects on Humans:	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 12. Ecological information

Biodegradable/OECD:	Not available.
Mobility:	Soluble in cold water, hot water.
Persistence/ degradability:	Persistence potential: Not applicable.

Other adverse effects: This material is not expected to be harmful to aquatic organisms.

Section 13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with waterways, drains and sewers. Disposal of this product, solutions and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.

Consult your local or regional authorized.

Section 14. Transport Information

Not classified as Dangerous Goods.

Land Transport: Not Dangerous Goods according to relevant rules for road transport

Sea Transport: Not Dangerous Goods according to relevant rules for vessel transport

Air Transport: Not Dangerous Goods according to relevant rules for air transport

Section 15. Regulatory Information

Based on available information, it is not classified as hazardous.

Section 16. Other information.

The information provided in this Material 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 guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information only relates 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.