

# MALAYSIAN AGRO PRODUCTS

A BUSINESS LEADER IN AGRO-TECHNOLOGY

## PRODUCT DATA SHEET

# UREA 46-0-0

### GUARANTEED ANALYSIS

Total Nitrogen (N) ..... 46.00%  
46.00% Urea Nitrogen  
Derived from Urea.

### PHYSICAL CHARACTERISTICS

Lbs. of Nutrients/Ton:	920
Color:	White
Bulk Density:	42-48 lbs. per cubic foot
Solubility in Water:	100%
Size Guide Number (SGN):	250-320

### USES

1. The high analysis of urea makes aerial application very attractive. It is also suited for ground application methods. The 100% solubility of urea allows it to be totally dissolved so it can be applied through the irrigation water by flood, furrow or sprinkler method.
2. Because of urea's chemical characteristics, it should be incorporated soon after application. Band application in close proximity to seeds and young plants should be avoided.
3. For specific crop recommendations, see your local distributor.

### ADVANTAGES

1. Urea is the most concentrated dry nitrogen fertilizer on today's market. This high-analysis fertilizer saves the farmer money on handling, freight, storage, and application costs.
2. Urea is 100% water soluble and is mobile in the soil, moving with soil moisture until soil organisms initiate the nitrification process that changes the organic nitrogen to ammoniacal nitrogen and eventually to nitrate nitrogen. Urea will supply a continuous, long-lasting supply of nitrogen to the growing crop.

### SAFETY

Urea 46-0-0 - Slight irritation may result from eye contact or prolonged skin contact. Not generally considered toxic. Nonflammable.

## Material Safety Data Sheet

Trade Name: Urea Fertilizer 46-0-0  
 Registration No: None

M11020

<b>SECTION 1</b>	<b>CHEMICAL PRODUCT AND COMPANY INFORMATION</b>
------------------	---

Product Name: Urea Fertilizer 46-0-0  
 Common Name: 46-0-0  
 Chemical Type: Inorganic Chemical Fertilizer

<b>SECTION 2</b>	<b>COMPOSITION INFORMATION</b>				
------------------	--------------------------------	--	--	--	--

Chemical Name and Synonyms	C.A.S. No.	Chemical Formula	WT% Hazardous	TLV	PEL
None listed					
Urea	57-13-6	CO(NH <sub>2</sub> ) <sub>2</sub>	Non-Hazardous 98.7	NE	Not available
Non-hazardous ingredients			1.3		

<b>SECTION 3</b>	<b>HAZARDS IDENTIFICATION</b>
------------------	-------------------------------

Ingestion: Minimal hazard under normal conditions and use. Ingestion of large quantities may cause gastrointestinal discomfort, vomiting, weakness or other medically related problems.

Inhalation: Dusty conditions may cause mechanical aggravation to respiratory mucous membranes.

Eye Contact: Dust from this product may cause particulate discomfort to eyes.

Skin Absorption: Not normally absorbed through the skin.

Skin Contact: Slight dermal abrasion is possible with prolonged contact, especially around cuffs and collars.

Effects of Overdose: Ingestion of large doses may cause diarrhea, nausea, abdominal cramps or formation of methemoglobinemia. Seek medical attention.

<b>SECTION 4</b>	<b>FIRST AID MEASURES</b>
------------------	---------------------------

Ingestion: If large amount is ingested, give 2-3 glasses of water and induce vomiting. Seek medical attention.

Inhalation: Remove to fresh air. Seek medical attention if condition persists.

Eyes: Flush eyes with running water for at least 15 minutes. Seek medical attention if condition persists.

Skin: Wash with soap and water. Seek medical attention if condition persists.

Notes to Physician: Consult standard literature. Treatment based on the sound judgment of the physician and the individual reactions.

<b>SECTION 5</b>	<b>FIRE FIGHTING MEASURES</b>
------------------	-------------------------------

Extinguishing Media: Use media suitable to extinguish source of fire.

Special Fire Fighting Procedures: Product is not combustible.

Unusual Fire and Explosion Hazards: During extremely high temperature fire conditions, the product may reach melting point and decompose to release NH<sub>3</sub>, SO<sub>2</sub>, PO<sub>x</sub> or CN.

<b>SECTION 6</b>	<b>ACCIDENTAL RELEASE MEASURES</b>
------------------	------------------------------------

Environmental Precautions: Keep out of water supplies, lakes, ponds, streams and rivers. This product is a fertilizer and may promote algae growth.

Steps to be taken in case material is released or spilled: Keep from entering waterways. Sweep up material and place in suitable container for use as a fertilizer or for disposal.

<b>SECTION 7</b>	<b>HANDLING AND STORAGE</b>
------------------	-----------------------------

Precautions to be taken in handling and storing: Store in a cool, dry area. Prevent spillage and separate from strong oxidizers. Use normal safety procedures and good personal hygiene. Keep out of the reach of children.

<b>SECTION 8</b>	<b>EXPOSURE CONTROLS/PERSONAL PROTECTION</b>
------------------	--

Ventilation Protection: Adequate ventilation.

Respiratory Protection: Approved dust respirator when necessary.

Protective Clothing: Normal clean work clothing.

Eye Protection: In dusty conditions, safety glasses with side shields or goggles may be necessary.

<b>SECTION 9</b>	<b>PHYSICAL AND CHEMICAL PROPERTIES</b>
------------------	---

Boiling Point:	Not applicable	Solubility in Water:	67 gm/100 gm H <sub>2</sub> O @ 32 °F
Specific Gravity:	1.335	% Volatiles (by volume):	0
Flashpoint:	Non-flammable	Vapor Pressure, mm Hg:	Not applicable
pH:	Not listed	Reaction with Water:	None
Appearance:	White prills or granules.	Extinguishing Media:	Use media suitable to extinguish source of fire.

<b>SECTION 10</b>	<b>STABILITY AND REACTIVITY</b>
-------------------	---------------------------------

Stability (Normal Conditions): Stable

Conditions to Avoid: Extremely high temperatures.

Incompatibility (Material to Avoid): Strong oxidizing agents. Prolonged contact may cause oxidation of unprotected metals.

Hazardous Decomposition Products: During extremely high temperature fire conditions, the product may reach melting point and decompose to release NH<sub>3</sub>, SO<sub>2</sub>, PO<sub>x</sub> or CN.

Hazardous Polymerization: Will not occur

<b>SECTION 11</b>	<b>TOXICOLOGY INFORMATION</b>
-------------------	-------------------------------

Acute Oral Toxicity: LD<sub>50</sub> (rat) is 14,300 mg/kg (ppm); not acutely toxic by oral exposure. (TFI Product Testing Results)

Acute Aquatic Toxicity: Fish 96-hour LC<sub>50</sub> is greater than 9,100 mg/L (ppm); daphnia 24-hour EC<sub>50</sub>: greater than 10,000 mg/L. Non-toxic to aquatic organisms. (TFI Product Testing Results)

<b>SECTION 12</b>	<b>ECOLOGICAL INFORMATION</b>
-------------------	-------------------------------

None listed.

<b>SECTION 13</b>	<b>DISPOSAL CONSIDERATIONS</b>
-------------------	--------------------------------

Waste Disposal Procedures: Pick up with a shovel and broom and use as a fertilizer by applying to soil using good agricultural and soil management.

<b>SECTION 14</b>	<b>TRANSPORT INFORMATION</b>
-------------------	------------------------------

Shipping name:	Not regulated by DOT	C.A.S. Number:	57-13-6
Hazard Class:	None	D.O.T. Number:	None
Reportable Quantity (RQ):	None	Haz Waste No.:	None
Labels Required:	None	EPA Regist No.:	None
Placard:	None		

<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b>
-------------------	-------------------------------

Carcinogenicity: by IARC?: Yes ( ) No (X) by NTP?: Yes ( ) No (X)  
 Not on the 302 list of SARA reportable quantities.

<b>SECTION 16</b>	<b>OTHER INFORMATION</b>
-------------------	--------------------------

Flash Point (Test Method):	Non-flammable	Flammable Limits (% BY VOLUME)	LOWER	UPPER
Autoignition Temperature:	Not applicable		N/A	N/A