Urea

Fertilizers

SAFETY DATA SHEET

* Contents in all 3- set of number fertilizers (example 10-10-10 / 5-10-15 / 19-19-19)

KOCH FERTILIZER TRADING Sàrl

1. Identification

GHS product identifier	Urea
MSDS Number	KFT_Urea_GHS_EN
Version #	01
Issue date	02-24-2012
CAS #	57-13-6
Recommended use	Fertilizer.
Recommended Restrictions	None known.
Synonym(s)	Carbamide, Carbamidic Acid
Manufacturer information	Koch Fertilizer Trading Sarl 20, route de Pre-Bois Case Postale 1843 Geneva Switzerland kochmsds@kochind.com +11 41 227 37 4223 or +1 316 828 7672 For Chemical Emergency Call CHEMTREC day or night USA/Canada - 1.800.424.9300 Outside USA/Canada 1.703.527.3887 (collect calls accepted)

2. Hazards identification

GHS classification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.

Precautionary statement

Prevention	Use personal protective equipment as required.
Response	Get medical advice/attention if you feel unwell.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Specific hazards	Dust may irritate skin. High concentrations of dust may irritate throat and respiratory system and cause coughing. Accidental ingestion of urea fertilizer caused nausea, persistent violent vomiting, excitement and convulsions. Complete recovery was observed within a few days. However, ingestion is not likely to be a primary route of occupational exposure.

3. Composition/information on ingredients

Non-hazardous components	CAS #	Percent
Urea*	57-13-6	95 - 100

Composition comments *Treated with a non-hazardous anti-caking agent, less than 1% by weight. This Safety Data Sheet is not a guarantee of product specification or NPK value(s). NPK content is on specified sales orders, customer invoices, or product specification sheets obtained from supplier.

4. First aid measures

First aid procedures

Inhalation	Move to fresh air. Get medical attention if any discomfort continues.
Skin	Wash contact areas with soap and water. Get medical attention if irritation develops and persists.
Eye	Dust in the eyes: Do not rub eyes. Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation persists after washing.
Ingestion	Rinse mouth thoroughly. Get medical attention if any discomfort continues.
Most important symptoms and effects, both acute and delayed	Symptoms can include irritation, redness, scratching of the cornea, and tearing.
Notes to physician	Treat symptomatically.

General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Fire will produce irritating, corrosive and/or toxic gases.
Protective equipment and precautions for firefighters	Move containers from fire area if you can do it without risk. Use water spray to prevent dust formation, absorb heat, keep containers cool and protect fire-exposed material.

6. Accidental release measures

Personal precautions	Avoid inhalation of dust and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing. Use personal protection recommended in Section 8 of the MSDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not allow to enter drains, sewers or watercourses.
Methods for containment	Stop the flow of material, if this is without risk. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product.
Methods for cleaning up	Avoid dust formation. After removal flush contaminated area thoroughly with water. Never return spills to original containers for re-use.

7. Handling and storage

Handling	Avoid inhalation of dust and contact with skin and eyes. Use only with adequate ventilation. Use work methods which minimize dust production. Keep the workplace clean.
Storage	Store in a well-ventilated place. Store in a cool, dry place. Keep container tightly closed. Store away from incompatible materials.

8. Exposure controls / personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.
Engineering controls	Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of dust.
Personal protective equipment	
Eye/face protection	Use tight fitting goggles if dust is generated.
Skin protection	Risk of contact: Wear appropriate clothing to prevent any possibility of skin contact.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. No specific recommendation made, but protection against nuisance dust must be used when the general level exceeds 10 mg/m3.
Hand protection	Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove supplier.

9. Physical and chemical properties

Appearance	White granules with faint ammonia odor.
Physical state	Solid.
Color	White.
Form	Granular. Pellets. Prilled.
Odor	Ammonia-like. Faint, characteristic.
Odor threshold	Not available.
pH	8 - 8.5 10% solution
Melting point/Freezing point	270.9 °F (132.7 °C)
Boiling point	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Flammability limits in air, lower, % by volume	Not available.

Flammability limits in air, upper, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.335 (water=1)
Solubility (H2O)	Soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Bulk density	48 - 52 lb/ft³ (Packed)
Molecular weight	60.06 g/mol

10. Stability and reactivity

Chemical stability	Normally stable. May gradually give off ammonia. The product is hygroscopic and will absorb water by contact with the moisture in the air.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Moisture. High temperatures. Contact with incompatible materials.
Incompatible materials	Reacts violently with strong oxidants, nitrites, inorganic chlorides, chlorites and perchlorates causing fire and explosion hazard.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NOx). Ammonia. Biuret.

11. Toxicological information

Toxicological data

Product	Test Results
Urea* (57-13-6)	Acute Oral LD50 Rat: 8471 mg/kg

Routes of exposure	Eye contact. Skin contact. Inhalation.
Toxicological information	Occupational exposure to the substance or mixture may cause adverse effects.
Acute toxicity	Dust in the eyes will cause irritation. Dust may irritate skin. High concentrations of dust may irritate throat and respiratory system and cause coughing.
Skin corrosion/irritation	May cause skin irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitization	No data available.
Skin sensitization	Not a skin sensitizer.
Mutagenicity	No data available.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	No data available.
Chronic effects	Frequent inhalation of dust over a long period of time increases the risk of developing asthma, chronic lung diseases, and skin irritation.
Symptoms	Symptoms can include irritation, redness, scratching of the cornea, and tearing.
Other information	No other specific acute or chronic health impact noted.

12. Ecological information

Ecotoxicological data

Product	Test Results
Urea* (57-13-6)	EC50 Water flea (Daphnia magna): 3910 mg/l 48 hours

Ecotoxicity	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Environmental effects	The product may cause risk of hazardous effects to the environment.
Persistence / degradability	Not available.
Bioaccumulation	No data available.
Mobility	The product is water soluble and may spread in water systems.
Other adverse effects	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Disposal considerations

Disposal methods	Dispose of this material and its container to hazardous or special waste collection point. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

ADR

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available.

15. Regulatory information

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

Disclaimer

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet (SDS) and was prepared pursuant to Government regulation(s) that identify specific types of information to be provided. This SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. No responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product. Purchasers and users assume all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Purchasers and users of the product specifically should advise all of their employees, agents, contractors and customers who will use the product of this (M)SDS.

Revision date

04-17-2012

Potash

Fertilizers

Mosaic * Contents in all 3-set of number fertilizers (example 10-10-10 / 5-10-15 / 19-19-19)

SAFETY DATA SHEET

SECTION 1	PRODUCT AND COMPANY IDENTIFICATION
Trade Name:	Muriate of Potash (MOP), all grades
Chemical Name:	Potassium Chloride
CAS Number:	7447-40-7
Chemical Family:	Inorganic Salt
Synonyms:	Potash MOP Potassium Chloride Potassium Muriate Potassium Monochloride Muriate of Potash
Primary Use:	Crop nutrient; Industrial applications
Company Information:	THE MOSAIC COMPANY 3033 Campus Drive Plymouth, MN 55441 www.mosaicco.com 800-918-8270 or 763-577-2700 8 AM to 5 PM Central Time US
Emergency Telephone:	**EMERGENCY OVERVIEW** **24 Hour Emergency Telephone Number:** **For Chemical Emergencies:** **Spill, Leak, Fire or Accident** **Call CHEMTREC** **North America: (800) 424-9300 (reference CCN201871)** **Others: (703) 527-3887 (collect)**

SECTION 2	HAZARD IDENTIFICATION	
GHS Classification:	Not Applicable	Not Applicable
	Signal Word: not applicable **Hazard Statement(s)** Not applicable	
Label Elements:		
Prevention:	Not applicable	
Response:	Not applicable	Not applicable
Storage:	Not applicable	Not applicable
Disposal:	Not applicable	Not applicable

SECTION 3	COMPOSITION INFORMATION ON INGREDIENTS			
Formula:	KCl			
Composition:	Potassium Chloride Sodium Chloride	CAS 7447-40-7 CAS 7647-14-5	95-99.5% 0.3-3.7%	

SECTION 4	FIRST AID MEASURES	
First Aid Procedures:	Eyes:	Move victim away from exposure and into fresh air. Flush eyes with plenty of clean water for at least 15 minutes. If symptoms persist, seek medical attention.
	Skin:	Wash contaminated area thoroughly with mild soap and water. If chemical or solution soaks through clothing, remove clothing and wash contaminated skin. If irritation develops and persists after washing, seek medical attention.
	Inhaled:	If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention.
	Ingestion:	If large amounts are swallowed, seek emergency medical attention. If possible, do not leave victim unattended and observe closely for adequacy of breathing.
Note to Physician:	None Known	

SECTION 5	FIRE FIGHTING MEASURES
Extinguishing Media:	Use extinguishing agent suitable for type of surrounding fire.
Protection of Firefighters:	No unusual fire or explosion hazards are expected. When this material is subjected to high temperatures, it may release small amounts of chloride gas. Positive pressure, self-contained breathing apparatus is required for all firefighting activities involving hazardous materials. Full structural firefighting (bunker) gear is the minimum acceptable attire. The need for proximity, entry, flashover and/or special chemical protective clothing (see Section 8) needs to be determined for each incident by a competent firefighting safety professional. Water used for fire suppression and cooling may become contaminated. Discharge to sewer system(s) or the environment may be restricted, requiring containment and proper disposal of water (see Section 6).

SECTION 6	ACCIDENTAL RELEASE MEASURES
Response Techniques:	Stay upwind and away from spill (dust hazard). Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Notify appropriate federal, state, and local agencies as may be required (see Section 15). Minimize dust generation. Sweep up and package appropriately for disposal. Large spills can harm or kill vegetation.

SECTION 7	HANDLING AND STORAGE
Handling:	The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Section 8). Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Wash contaminated clothing or shoes. Use good personal hygiene practices.
Storage:	Use and store this material in dry, well-ventilated areas. Store only in approved containers. Keep container(s) tightly closed. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Material may absorb moisture from the air.

SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION	
Engineering Controls:	Use process enclosure, general dilution ventilation or local exhaust systems where necessary to maintain airborne dust concentration below the OSHA standards or in accordance with applicable regulations.	
Personal Protective Equipment (PPE):	Eye/Face:	Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended.
	Skin:	The use of cloth or leather work gloves is advised to prevent skin contact, possible irritation and absorption.
	Respiratory:	A NIOSH approved air purifying respirator with a type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed if workplace conditions warrant a respirator.
	Other:	A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.
General Hygiene Considerations:	Wash thoroughly after handling Use adequate ventilation	
Exposure Guidelines:	OSHA Permissible Exposure Limits (PEL):	Particulates Not Otherwise Regulated: 5 mg/m^3 TWA (respirable); 15 mg/m^3 TWA (total)
	ACGIH Threshold Limit Value (TLV):	Particulates Not Otherwise Specified: 3 mg/m^3 TWA (respirable); 10 mg/m^3 TWA (inhalable)

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES		
Note: Unless otherwise stated, values in this section are determined at 20°C (68°F) and 760 mm Hg (1 atm).			
Appearance:	White to reddish-brown, crystalline or granular	Vapor Pressure (mm Hg):	Not applicable
Odor:	None/Strong Saline	Vapor Density (air=1):	Not applicable

Odor Threshold:	No data available	Specific Gravity or Relative Density:	1.986 - 1.990
Physical state:	Solid	Bulk Density:	Loose 64 - 75 lbs/ft^3 (1025 - 1200 kg/m^3);
pH:	5.4 – 10.0 in a 5% solution	Solubility in Water:	99.5 - 99.999%; 34.2 g/100mL at 20°C
Melting Point/ Freezing Point:	772 to 776°C (1423 to 1428°F)	Partition coefficient:	No data available
Boiling Point:	Sublimes at 1500°C (2732°F)	Auto-Ignition Temperature:	Not applicable
Flash Point:	Not applicable	Decomposition Temperature:	No data available
Evaporation Rate:	No data available	Viscosity:	No data available
Flammability:	Not applicable	Volatility:	Not applicable
Upper/lower Flammability or explosive limits	Not applicable		

SECTION 10	STABILITY AND REACTIVITY
Chemical Stability:	Stable under normal conditions of storage and handling. Material is hygroscopic (May absorb moisture from air when relative humidity >72%).
Conditions to Avoid:	None known
Incompatible Materials:	Avoid contact with hot nitric acid, may cause evolution of toxic nitrosyl chloride. Contact with other strong acids may produce irritating hydrogen chloride gas. KCl may react violently with bromine trifluoride and may explode if mixed with potassium permanganate and sulfuric acid. NaCl can react with most noble metals, such as iron or steel, building materials (such as cement), bromine, or trifluoride. A potentially explosive reaction may occur if NaCl is mixed with dichloromaleic anhydride and urea. Electrolysis of mixtures containing NaCl and nitrogen compounds may form explosive nitrogen trichloride.
Hazardous Decomposition Products:	None known
Corrosiveness:	Similar to salt. Mildly corrosive to metals in the presence of moisture.
Hazardous Polymerization:	Will not occur

SECTION 11	TOXICOLOGICAL INFORMATION		
Substance:	Potassium Chloride		
Acute Oral Toxicity:	LD_{50} (rat, oral) > 2600 mg/kg LD_{50} (mouse, oral) > 1500 mg/kg		
Acute Inhalation Toxicity:	No data available		
Acute Dermal Toxicity:	No data available		
Substance:	Sodium Chloride		
Acute Oral Toxicity:	LD_{50} (rat, oral) > 3000 mg/kg LD_{50} (mouse, oral) > 4000 mg/kg		
Acute Inhalation Toxicity:	LC_{50} (rat) > 42 g/m^3 / 1 hour		
Acute Dermal Toxicity:	No data available		
Mutagenesis:	No data available	Target Organ	No data available

Developmental Toxicity:	No data available	Carcinogenicity	No data available

SECTION 12	ECOLOGICAL INFORMATION
Ecotoxicology:	Dissolution of large quantities of potassium chloride and sodium chloride in water may create an elevated level of salinity that may be harmful to fresh water aquatic species and to plants that are not salt-tolerant. Potassium Chloride: Lepomis macrochirus LC50 - 2010 mg/l Physa heterostrapha LC50 - 940 mg/l Scenedesmus subspicatus EC50 - 2500 mg/l Sodium Chloride: Ceriodaphania dubia LC50 - 280,000 - 3,540,000 ug/l Daphnia magnia LC50 - 3,144,000 - 10,000,000 ug/l Daphnia pulex EC50 - 56.40 mM Pimephales promelas LD50 - 6,020,000 - 10,000,000 ug/l

SECTION 13	DISPOSAL CONSIDERATIONS
	This material, if discarded as produced, is not an RCRA "listed" or "characteristic" hazardous waste. Contamination may subject it to hazardous waste regulations. It is the generator's responsibility to properly characterize all waste materials. Consult federal, state/provincial and local regulations regarding the proper disposal of this material.

SECTION 14	TRANSPORT INFO
Regulatory Status:	Not regulated
Identification Number:	HTS 3104.20.00
Hazard Class:	Not applicable
Proper Shipping Name	Not applicable
Packing Group	Not applicable
DOT Emergency Response Guide Number:	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not applicable
MARPOL Annex V:	Non-HME
IMO/IMDG:	Not applicable

SECTION 15	REGULATORY INFORMATION
CERCLA:	Not listed
RCRA 261.33:	Not listed

SARA TITLE III: (Exemptions at 40 CFR, Part 370 may apply for agricultural use, or for quantities of less than 10,000 pounds on-site.)	Section 302/304: Not listed		RQ: No		TPQ: No
	Section 311/312:				
	Acute: No	Chronic: No	Fire: No	Pressure: No	Reactivity: No
	Section 313: Not listed				
NTP, IARC, OSHA:	This material has not been identified as a carcinogen by NTP, IARC, or OSHA.				
Canada DSL and NDSL:	DSL: Yes NDSL: Not listed				
TSCA:	Listed on the TSCA Inventory				
CA Proposition 65: (Health & Safety Code Section 25249.5)	Warning: This product contains substances known to the State of California to cause cancer and/or birth defects or other reproductive harm.				
WHMIS:	**WHMIS 2015** This SDS has been prepared according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR. **WHMIS 1988** *(Repealed)* Classifications and/or symbols from the Controlled Products Regulations (CPR) are included in the Other Hazardous Classifications in Section 16 for reference.				

SECTION 16	OTHER INFORMATION
Disclaimer:	The information in this document is believed to be correct as of the date issued. **HOWEVER, MOSAIC MAKES NO GUARANTEE, REPRESENTATION, OR WARRANTY, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO THE USE OF THIS PRODUCT.** User is responsible for determining whether this product is fit for a particular purpose and suitable for user's method of use or application and assumes the risk of use thereof. The conditions and use of this product are beyond the control of Mosaic, and Mosaic disclaims any liability for loss or damage incurred in connection with the use or misuse of this product. Each user should review the recommended industrial hygiene and safe handling procedures in the specific context of the intended use and determine whether they are appropriate.
Preparation:	The preparation of this SDS was in accordance with ANSI Z400.1-2010.
Revision Date:	December 22, 2015
Sections Revised:	All
SDS Number:	MOS 100052
References:	Globally Harmonized System of Classification and Labelling of Chemicals (GHS) – 4th Edition 2011 OSHA Hazard Communication Standard, 2012 MARPOL Annex V; The Fertilizer Institute (TFI), 2003; TOXNET Toxline, Tomes, ECHA, OECD SIDS

Other Hazard Classifications:

NFPA HAZARD CLASS	
Health:	1
Flammability:	0
Instability:	0
Special Hazard:	None

HMIS HAZARD CLASS	
Health:	1
Flammability:	0
Physical Hazard:	0
PPE:	Section 8

WHMIS 1988 (CPR) HAZARD CLASS	
Symbol	N/A
Classification	Not WHMIS Controlled
Sub Class	N/A

WHMIS 2015 (HPR) HAZARD CLASS	
Signal Word	N/A
Symbol	N/A
Classification	Not WHMIS Controlled
Hazard Statements	N/A

DAP

Fertilizers

Mosaic

* Contents in all 3-set of number fertilizers (example 10-10-10, 5-10-15, 19-19-19)

SAFETY DATA SHEET

SECTION 1	PRODUCT AND COMPANY IDENTIFICATION
Trade Name:	DAP - Diammonium Phosphate
Chemical Name:	Dibasic Ammonium Phosphate
CAS Number:	7783-28-0
Chemical Family:	Ammonium Phosphates—Inorganic Salt
Synonyms:	Ammonium Phosphate Dibasic Secondary Ammonium Phosphate Diammonium Hydrogen Phosphate Fertilizer Grade Ammonium Phosphate DAP 18 - 46 - 0
Primary Use:	Crop nutrient
Company Information:	THE MOSAIC COMPANY 3033 Campus Drive Plymouth, MN 55441 www.mosaicco.com 800-918-8270 or 763-577-2700 8 AM to 5 PM Central Time US
Emergency Telephone:	24 Hour Emergency Telephone Number: For Chemical Emergencies: Spill, Leak, Fire or Accident Call CHEMTREC North America: (800) 424-9300 Others: (703) 527-3887 (collect)

SECTION 2	HAZARD IDENTIFICATION	
GHS Classification:	Acute Toxicity Oral Category 5 Skin Irritant Category 2 Eye Irritant Category 2B STOT SE Category 3	Hazard Statement H303 Hazard Statement H315 Hazard Statement H320 Hazard Statement H335
	**Signal Word: WARNING** **Hazard Statement(s)** H303: May be harmful if swallowed H315: Causes skin irritation H320: Causes eye irritation H335: May cause respiratory irritation	
Label Elements:		
Prevention:	P264: Wash thoroughly after handling. P280: Wear protective gloves P261: Avoid breathing dust P271: Use only outdoors or in a well-ventilated area.	
Response:	P302+ P352	IF ON SKIN: Wash with plenty of water.
	P321	Specific Treatment, see supplemental first aid information.
	P332+ P313	If skin irritation occurs: Get medical advice/attention.
	P362+ P364	Take off contaminated clothing and wash it before reused.
	P305+P351+ P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337+ P313	If eye irritation persists: Get medical advice/attention.
	P304+ P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P312	Call a POISON CENTER.

SECTION 7	HANDLING AND STORAGE
Handling:	The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Section 8). Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Wash contaminated clothing or shoes. Use good personal hygiene practices.
Storage:	Use and store this material in dry, well-ventilated areas. Store only in approved containers. Keep container(s) tightly closed. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Material may absorb moisture from the air.

SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION	
Engineering Controls:	Use process enclosure, general dilution ventilation or local exhaust systems where necessary to maintain airborne dust concentration below the OSHA standards or in accordance with applicable regulations.	
Personal Protective Equipment (PPE):	Eye/Face:	Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended.
	Skin:	The use of cloth or leather work gloves is advised to prevent skin contact, possible irritation and absorption.
	Respiratory:	A NIOSH approved air purifying respirator with a type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed if workplace conditions warrant a respirator.
	Other:	A source of clean water should be available in the work area for flushing eyes and skin.
General Hygiene Considerations:	Wash thoroughly after handling Use adequate ventilation	
Exposure Guidelines:	OSHA Permissible Exposure Limits (PEL):	Particulates Not Otherwise Regulated: 5 mg/m^3 TWA (respirable); 15 mg/m^3 TWA (total) Ammonia: 50 ppm (35 mg/m^3) TWA
	ACGIH Threshold Limit Value (TLV):	Particulates Not Otherwise Specified: 3 mg/m^3 TWA (respirable); 10 mg/m^3 TWA (inhalable) Ammonia: 25 ppm (18 mg/m3) TWA; 35 ppm (27 mg/m^3) STEL

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES		
Note: Unless otherwise stated, values in this section are determined at 20°C (68°F) and 760 mm Hg (1 atm).			
Appearance:	Gray, tan, brown or black granules	Vapor Pressure (mm Hg):	Not applicable

SECTION 13	DISPOSAL CONSIDERATIONS
	Recover or recycle if possible. Properly characterize all waste materials. Consult federal, state/provincial and local regulations regarding the proper disposal of this material. Prevent material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways.

SECTION 14	TRANSPORT INFO
Regulatory Status:	Not regulated
Identification Number:	HTS 3105.30.00
Hazard Class:	Not applicable
Proper Shipping Name	Not applicable
Packing Group	Not applicable
DOT Emergency Response Guide Number:	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78[9] and the IBC Code[10]:	Not applicable
MARPOL Annex V:	Non-HME
IMO/IMDG:	Not applicable

SECTION 15	REGULATORY INFORMATION				
CERCLA:	Not listed				
RCRA 261.33:	Not listed				
SARA TITLE III: (Exemptions at 40 CFR, Part 370 may apply for agricultural use, or for quantities of less than 10,000 pounds on-site.)	Section 302/304: Not listed		RQ: No		TPQ: No
	Section 311/312:				
	Acute: Yes	Chronic: No	Fire: No	Pressure: No	Reactivity: No
	Section 313: Not listed				
NTP, IARC, OSHA:	This material has not been identified as a carcinogen by NTP, IARC, or OSHA.				
Canada DSL and NDSL:	DSL: Yes NDSL: Not listed				
TSCA:	Listed on the TSCA Inventory				
CA Proposition 65: (Health & Safety Code Section 25249.5)	Warning: This product contains substances known to the State of California to cause cancer and/or birth defects or other reproductive harm.				
WHMIS:	**WHMIS 2015** This SDS has been prepared according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR. **WHMIS 1988** *(Repealed)* Classifications and/or symbols from the Controlled Products Regulations (CPR) are included in the Other Hazardous Classifications in Section 16 for reference.				
REACH Registration	#01-2119490974-22-0074				