

7758 -11 -4

U.S./CANADA VERSION	EFFECTIVE: 07/20/93	PRINTED: 10/20/93
PRINTED FOR.....	ASTRO CHEMICALS INC 64-70 SHAW'S LANE SPRINGFIELD MA 01104	
===== 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION =====		
PRODUCT NAME.....	DIPOTASSIUM PHOSPHATE	
SYNONYMS.....	DKP; POTASSIUM PHOSPHATE, DIBASIC; POTASSIUM MONOHYDROGEN ORTHOPHOSPHATE; DIPOTASSIUM MONOPHOSPHATE	
INFORMATION PROVIDED BY..	FMC CORPORATION 1735 MARKET STREET PHILADELPHIA PA 19103	
EMERGENCY PHONE NUMBERS		
CHEMTREC.....	(800) 424-9300	
MEDICAL.....	(303) 595-9048 CALL COLLECT	
PLANT/OTHER.....	(908) 541-3000 CARTERET, NJ	
===== 2. COMPOSITION/INFORMATION ON INGREDIENTS =====		
CAS # AND COMPONENTS.....	7758-11-4 DIPOTASSIUM PHOSPHATE ALSO SOLD AS 50% SOLUTION (IN WATER)	
===== 3. HAZARD IDENTIFICATION =====		
EMERGENCY OVERVIEW.....	PRODUCT IS NOT CONSIDERED HAZARDOUS BY KNOWN GOVERNMENTAL DEFINITIONS. HOWEVER, CONTINUOUS CONTACT MAY CAUSE SKIN IRRITATION.	
HEALTH EFFECTS.....	MINIMALLY TO MODERATELY IRRITATING TO UNWASHED EYES AND MINIMALLY TO MILDLY IRRITATING TO WASHED EYES IN RABBITS. SKIN IRRITATION FROM CONTINUOUS CONTACT HAS BEEN REPORTED DURING MANUFACTURING WHEN PROTECTIVE MEASURES FOR CONTACT OR PERSONAL HYGIENE PROCEDURES ARE NOT FOLLOWED.	
HUMAN INDUSTRIAL EXPERIENCE HAS SHOWN NO SIGNIFICANT INHALATION HAZARD OR SKIN IRRITATION WHEN EXPOSURES ARE PROPERLY CONTROLLED. EXPOSURE MONITORING INDICATES THAT THE AMOUNT OF RESPIRABLE DUST IN THE PRODUCT IS LOW.		
THERE HAVE BEEN NO MEDICAL CONDITIONS REPORTED AS BEING AGGRAVATED BY EXPOSURE.		
===== 4. FIRST AID MEASURES =====		
EYES.....	FLUSH EYES WITH LARGE AMOUNTS OF WATER. IF IRRITATION OCCURS AND PERSISTS, OBTAIN MEDICAL ATTENTION.	
SKIN.....	WASH WITH PLENTY OF SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION OCCURS AND PERSISTS.	
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4. FIRST AID MEASURES =====
INHALATION.....: REMOVE TO FRESH AIR. IF BREATHING DIFFICULTY
OR DISCOMFORT OCCURS AND PERSISTS, OBTAIN
MEDICAL ATTENTION.
INGESTION.....: DRINK PLENTY OF WATER. NEVER GIVE ANYTHING BY
MOUTH TO AN UNCONSCIOUS PERSON. IF ANY
DISCOMFORT PERSISTS, OBTAIN MEDICAL ATTENTION.
NOTES TO PHYSICIAN.....: LARGE DOSES MAY CAUSE NAUSEA, VOMITING AND
DIARRHEA. SYSTEMIC ORAL TOXICITY IS
EXTREMELY RARE AND HAS CONSISTED OF ACIDOSIS
AND HYPOCALCEMIC TETANY.

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5. FIRE FIGHTING MEASURES =====
EXTINGUISHING MEDIA.....: PRODUCT IS NONCOMBUSTIBLE
SPECIAL FIREFIGHTING.....: NOT APPLICABLE
PROCEDURES
DEGREE OF FIRE AND.....: NONE
EXPLOSION HAZARD
HAZARDOUS DECOMPOSITION..: NONE
PRODUCTS

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6. ACCIDENTAL RELEASE MEASURES =====
PROCEDURE FOR RELEASE....: MATERIAL SHOULD BE SWEEPED UP FOR SALVAGE
OR SPILL

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7. HANDLING AND STORAGE =====
HANDLING.....: ANIMAL STUDIES AND MANUFACTURING EXPERIENCE
INDICATE THAT EXPOSURE TO THE PRODUCT MAY
RESULT IN EYE AND SKIN IRRITATION UNDER
NORMAL CONDITIONS OF USE. IN THE EVENT OF
CONTACT, IMMEDIATELY FLUSH EYES WITH WATER; WASH
OFF SKIN.
VENTILATION.....: CONTROL MEASURES SUCH AS LOCAL EXHAUST VENTIL-
ATION MAY BE REQUIRED WHERE EXCESSIVE AIR-
BORNE DUST LOADING MAY BE PRESENT.
STORAGE.....: THE PRODUCT SHOULD BE STORED IN A CLEAN DRY AREA
TO MAINTAIN PRODUCT QUALITY AND TO PREVENT
POSSIBLE CONTAMINATION BY OTHER CHEMICALS.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION =====
CONTROL MEASURES.....: PREVENTION OF EYE AND SKIN CONTACT MAY BE
REQUIRED UNDER NORMAL USE CONDITIONS. HOWEVER,
SEVERE AGITATION OR DISPERSION INTO THE WORK
ENVIRONMENT MAY REQUIRE ENCLOSURE OF THE PROCESS
AND LOCAL EXHAUST VENTILATION AT THE SOURCE TO
PREVENT RELEASE INTO AIR. IF WORK ENVIRONMENT
    
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION =====

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

CONTROLS ARE NOT IMPLEMENTED, THEN PERSONAL PROTECTION FOR INHALATION, SKIN AND EYE MAY BE REQUIRED.

- RESPIRATORY.....: USE APPROVED DUST RESPIRATORY PROTECTION IF RELEASE OF THE PRODUCT INTO THE WORK AREA IS EXPECTED.
- EYES.....: WEAR CHEMICAL GOGGLES, WHEN AIRBORNE DUST IS EXPECTED.
- GLOVES.....: USE IMPERVIOUS GLOVES WHEN CONTINUOUS CONTACT IS EXPECTED.
- SPECIAL CLOTHING... AND EQUIPMENT: USE LONG SLEEVE WORK SHIRT TO REDUCE EXPOSED SKIN AREA.
- FOOTWEAR.....: NO SPECIAL REQUIREMENT

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9. PHYSICAL AND CHEMICAL PROPERTIES =====

- MELTING/FREEZING POINT...: - H2O @ 200*C
- BOILING POINT.....: NOT KNOWN
- VAPOR PRESSURE.....: NON-VOLATILE
- VAPOR DENSITY (AIR=1)....: NON-VOLATILE
- ROOM TEMPERATURE.....: WHITE POWDER, GRANULES, OR SOLUTION
- APPEARANCE AND STATE
- ODOR.....: NONE
- SPECIFIC GRAVITY (H2O=1)..: BULK DENSITY 1.23 G/ML
- SOLUBILITY IN H2O % BY WT: 63 @25C
- % VOLATILES.....: NON-VOLATILE
- EVAPORATION RATE.....: NON-VOLATILE
- (BUTYL ACETATE=1)
- PH (AS IS).....: NOT APPLICABLE
- PH (1% SOLUTION).....: 9
- ODOR THRESHOLD.....: NOT APPLICABLE
- DENSITY (G/ML).....: 1.1-1.2
- PARTITION COEFFICIENT....: NOT AVAILABLE
- N-OCTANOL/WATER
- FLASH POINT.....: NON COMBUSTIBLE
- AUTOIGNITION TEMPERATURE.: NON COMBUSTIBLE
- FLAMMABLE LIMITS UPPER..: NOT APPLICABLE
- (AIR) LOWER...: NOT APPLICABLE
- EXPLOSIVE PROPERTIES.....: NONE
- OXIDIZING PROPERTIES.....: NONE
- SOLUBILITY.....: NOT AVAILABLE
- FAT SOLUBILITY
- (SOLVENT - OIL)

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===== 10. STABILITY AND REACTIVITY =====

STABILITY.....: STABLE
 HAZARDOUS POLYMERIZATION.: WILL NOT OCCUR
 CONDITIONS TO AVOID.....: NONE
 MATERIALS TO AVOID.....:
 MAJOR CONTAMINANTS THAT..: NONE
 CONTRIBUTE TO INSTABILITY
 INCOMPATIBILITY.....: NONE
 HAZARDOUS DECOMPOSITION..: NONE
 PRODUCTS
 SENSITIVITY TO MECH.....: NONE
 IMPACT
 SENSITIVITY TO STATIC....: NONE
 DISCHARGE

===== 11. TOXICOLOGICAL INFORMATION =====

EYE CONTACT.....: MILDLY IRRITATING TO UNWASHED EYES; PRACTICALLY
 NON-IRRITATING TO WASHED EYES (RABBIT).
 SOURCE: FMC STUDY I86-929
 DATE: 1986
 SKIN CONTACT.....: MINIMALLY IRRITATING AT 300 MG/KG; NON-
 IRRITATING AT 20 MG/KG (RABBIT).
 SOURCE: FMC REPORT I87-0952
 DATE: 1987
 SKIN ABSORPTION.....: PRACTICALLY NONTOXIC, LD50 > 300MG/KG (RABBIT)
 SOURCE: FMC REPORT I87-0952
 DATE: 1987
 INHALATION.....: NO PUBLISHED DATA
 INGESTION.....: PRACTICALLY NONTOXIC, LD50 > 500 MG/KG (RAT)
 SOURCE: FMC REPORT I87-0951
 DATE: 1987
 ACUTE EFFECTS FROM.....: MODERATE IRRITANT TO UNWASHED EYES AND MILD
 OVEREXPOSURE IRRITANT TO WASHED EYES BY ANIMAL TESTS. FMC'S
 WORKERS OFTEN EXPERIENCE SKIN IRRITATION/RASH
 WHEN EXPOSED TO DUST.
 CHRONIC EFFECTS FROM.....: HUMAN INDUSTRIAL EXPERIENCE HAS SHOWN NO
 OVEREXPOSURE SIGNIFICANT INHALATION HAZARD NOR SKIN
 (EFFECTS CONSIDERED IRRITATION FOR LOW LEVEL LONG TERM EXPOSURE.
 INCLUDE:
 SENSITIVITIES,
 CARCINOGENICITY,
 TERATOGENICITY,
 MUTAGENICITY,
 SYNERGISTIC
 PRODUCTS, AND ANY
 MEDICAL CONDITIONS
 GENERALLY RECOGNIZED
 AS BEING AGGRAVATED
 BY EXPOSURE.)

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===== 12. ECOLOGICAL INFORMATION =====

ENVIRONMENTAL FATE.....: INORGANIC PHOSPHATES IN CONTACT WITH THE SOIL, SUB-SURFACE OR SURFACE WATERS MAY BE TAKEN UP BY PLANTS AND UTILIZED AS ESSENTIAL NUTRIENTS. PHOSPHATES MAY ALSO FORM PRECIPITATES, USUALLY WITH CALCIUM OR MAGNESIUM. THE RESULTANT COMPOUNDS ARE INSOLUBLE IN WATER AND BECOME A PART OF THE SOIL OR SEDIMENT. THE TERM BIODEGRADABILITY, AS SUCH, IS NOT APPLICABLE TO INORGANIC COMPOUNDS.

ENVIRONMENTAL EFFECTS.....: AQUATIC TOXICITY DATA
 96 HR LC50 > 100 MG/L, NON-TOXIC (RAINBOW TROUT, INLAND SILVERSIDES AND MYSID SHRIMP)
 FMC STUDIES I89-1089, -1090 & -1091
 48 HR EC50 > 100 MG/L, NON-TOXIC (DAPHNIA MAGNA) FMC STUDY I89-1092

===== 13. DISPOSAL CONSIDERATIONS =====

WASTE DISPOSAL METHOD....: THIS PRODUCT DOES NOT PRESENT A DANGER OR HAZARD FOR DISPOSAL. EXCEPT FOR FOOD APPLICATIONS, SALVAGE AND RETURN TO CONTAINER, PROCESS OR RECYCLE FOR OTHER USES. MAY BE DISPOSED OF IN LANDFILLS ACCORDING TO APPLICABLE REGULATIONS.

===== 14. TRANSPORT INFORMATION =====

DOT PROPER SHIPPING NAME.: NONE; NOT REGULATED
 IATA.....: NONE; NOT REGULATED
 IMDG.....: NONE; NOT REGULATED
 DOT CLASSIFICATION.....: NOT REGULATED
 DOT LABELS.....: NOT REQUIRED
 DOT MARKING.....: NOT REQUIRED
 DOT PLACARD.....: NOT REQUIRED
 UN NUMBER.....: NONE
 HAZARDOUS SUBSTANCE/RQ...: NOT LISTED
 49 STCC NUMBER.....: NONE
 PRECAUTIONS TO BE TAKEN..: NONE
 IN TRANSPORTATION
 OTHER SHIPPING.....: NONE
 INFORMATION

===== 15. REGULATORY INFORMATION =====

OSHA
 EXPOSURE LIMITS
 SUBSTANCE(S).....: DIPOTASSIUM PHOSPHATE
 OSHA PEL-TWA.....: NOT APPLICABLE
 STEL.....: NOT APPLICABLE
 CEILING.....: NOT APPLICABLE

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===== 15. REGULATORY INFORMATION =====

SKIN DESIGNATION.: NOT APPLICABLE
 ACGIH TLV-TWA.....: NOT APPLICABLE
 STEL.....: NOT APPLICABLE
 CEILING.....: NOT APPLICABLE
 SKIN DESIGNATION.: NOT APPLICABLE
 TARGET ORGAN EFFECTS.....: NOT APPLICABLE
 CARCINOGENIC POTENTIAL...: DIPOTASSIUM PHOSPHATE
 REGULATED BY OSHA.....: NO
 LISTED ON NTP REPORT...: NO
 IARC GROUP 1, 2A, 2B...: NO
 U.S. EPA REQUIREMENTS
 RELEASE REPORTING
 CERCLA (40 CFR 302)
 LISTED SUBSTANCE(S)....: NOT LISTED
 RQ.....: NOT APPLICABLE
 CATEGORY.....: NOT APPLICABLE
 RCRA WASTE NO.....: NOT APPLICABLE
 UNLISTED SUBSTANCE(S)..: NOT APPLICABLE
 RQ.....: NOT APPLICABLE
 CHARACTERISTIC...: NOT APPLICABLE
 RCRA WASTE NO.....: NOT APPLICABLE
 SARA TITLE III SEC 313
 (40 CFR 372).....: NOT LISTED
 LISTED TOXIC CHEMICAL..: NOT LISTED
 REPORTING THRESHOLD....: NOT APPLICABLE
 INVENTORY REPORTING
 SARA TITLE III SEC 311/312
 (40 CFR 370)
 SUBSTANCE(S).....: NOT LISTED
 HAZARD CATEGORY.....: NOT APPLICABLE
 PLANNING THRESHOLD....: NOT APPLICABLE
 EMERGENCY PLANNING
 SARA TITLE III SEC 302-303
 (40 CFR 355)
 LISTED SUBSTANCE(S)....: NOT APPLICABLE
 RQ.....: NOT APPLICABLE
 PLANNING THRESHOLD....: NOT APPLICABLE
 U.S. TSCA STATUS.....: LISTED IN INVENTORY
 CANADA
 INGREDIENT DISCLOSURE LIST
 SUBSTANCE(S).....: NOT LISTED
 CONTROLLED PRODUCT.....: NO
 HAZARD SYMBOLS.....: NOT APPLICABLE
 CLASS & DIVISION.....: NOT APPLICABLE
 PRODUCT IDENTIFICATION NO: NOT APPLICABLE
 DOMESTIC SUBSTANCE LIST.: LISTED
 CEPA PRIORITY LIST.....: NOT LISTED
 CARCINOGENICITY
 ACGIH APPENDIX A.....: NO

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===== 15. REGULATORY INFORMATION =====

A1 - CONFIRMED HUMAN...: NOT LISTED
 A1 - SUSPECTED HUMAN...: NOT LISTED
 IARC GROUP 1 OR 2.....: NOT LISTED
 LABEL LANGUAGE (US/CANADA)
 HEALTH.....: NOT HAZARDOUS BY OSHA NOR CANADIAN WHMIS
 DEFINITION.
 PHYSICAL.....: NOT APPLICABLE
 HANDLING AND STORAGE...: STORE CLEAN DRY AREA. FOR FOOD APPLICATIONS
 STORE AWAY FROM POSSIBLE CONTAMINATION.
 FIRST AID.....: IN CASE OF EYE OR SKIN CONTACT , FLUSH WITH
 PLENTY OF WATER. IF IRRITATION PERSISTS,
 OBTAIN MEDICAL ASSISTANCE.
 STATE REGULATIONS.....: CONTAINS CHEMICALS FROM CALIFORNIA "PROP 65"
 LISTS OF CARCINOGENS AND REPRODUCTIVE TOXINS:
 PPM MAXIMUM ARSENIC 3, CADMIUM 2 AND LEAD 0.7.

===== 16. OTHER INFORMATION =====

PRODUCT USES.....: SPECIALTY FERTILIZERS, AUTOMOTIVE ANTIFREEZE
 FORMULATIONS, NUTRIENT FOR ANTIBIOTIC
 PRODUCTION, PHARMACEUTICALS, EMULSIFIER IN
 NON-DAIRY CREAMERS, HUMECTANT, ETC.
 MAY BE USED TO TREAT DRINKING WATER UP TO
 18.4 MG/L (35.6 MG/L FOR 50% SOLUTION).

NFPA 704
 HEALTH.....: 0
 FLAMMABILITY.....: 0
 REACTIVITY.....: 0
 SPECIAL HAZARD.....: NONE
 (DEGREE OF HAZARD
 0 = NO HAZARD
 4 = SEVERE HAZARD)

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THE CONTENTS AND FORMAT OF THIS MSDS ARE IN
 ACCORDANCE WITH OSHA HAZARD COMMUNICATION AND
 CANADA'S WORKPLACE HAZARDOUS MATERIAL
 INFORMATION SYSTEM (WHMIS)