Material Safety Data Sheet

Issue Date: 01-Aug-2014

DAP- Diammonium Phosphate

Section 1: Product and Company Information

Product Name: **DAP – Diammonium Phosphate**
Chemical Name: Dibasic Ammonium Phosphate

Supplier: IFFCO Paradeep unit
Musadia Village,Paradeep (P.O.)
Jagatsinghpur (dt.) – Odisha -754142
India

Contact No. : (+91) 06722228201

Section 2: Hazards Identification

Health Hazards

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Di ammonium phosphate is generally recognized as safe when used in accordance with good manufacturing practice.

Physical Hazards : Slippery when wet

Physical Form: Solid

Appearance: Brown or black granules

Odour: Slight ammonia odour

Toxicity: Non- toxic

Potential Health Effects

Eye: Contact may cause mild eye irritation including stinging , watering, and redness.

Skin: Contact may cause mild irritation including redness and a burning sensation. No harmful effects from skin absorption have been reported.

Inhalation (Breathing): Studies by other exposure routes suggest a degree of hazard by inhalation under normal circumstances.

Ingestion (Swallowing): Low degree of toxicity by ingestion.

Signs and Symptoms: Effects of overexposure may include irritation of the nose, throat and digestive tract, nausea, vomiting, diarrhoea, coughing, and shortness of breath.

Other comments: Effects of overexposure to dust can include irritation of the eyes and respiratory tract, pneumoconiosis (dust congested lungs), pneumonitis (lung inflammation), coughing, vomiting, diarrhoea, abdominal pain and jaundice.

Pre-Existing Medical Conditions: Respiratory (asthma – like) disorders, dermatitis

Section 3: Composition/Information on Ingredients

Ingredient:	Phospahte as P2O5 46%
	Nitrogen as N 18%
	Water 1.5%
CAS #	7783-28-0

Section 4: First Aid Measures

Eyes: Move victim away from exposure and into fresh air. Flush with plenty of clean water for at least 15 minutes .If symptoms persist, seek medical attention.

Skin Contact: 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 person is conscious, immediately give water or milk. Do not induce vomiting. Seek medical attention. If person is unconscious, do not give anything by mouth.

Section 5: Fire Fighting Measures

Flash point: Not applicable.

OSHA Flammability Class: Not applicable.

LEL/UEL: Not applicable.

Auto Ignition Temperature: Not applicable.

Extinguishing media: Use extinguishing agent suitable for type of surrounding fire. Avoid excessive water to minimise runoff.

Small fires: Water spray, foam, dry chemical or CO_2

Large fires: Water spray, fog or foam

Protection of Fire-fighters: Positive pressure, self – contained breathing apparatus is required for all fire fighting activities involving hazardous materials.

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.

Section 7: Handling and Storage

Store in cool dry area. Prevent spillage and separate from strong oxidizers. Use of normal safety procedures and good personal hygiene. Keep out of reach of children.

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:
Eye/Face: Approved eye protection 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: Protection is not required where adequate ventilation conditions exist. Use a dust mask or other appropriate respiratory protection where engineering controls are not feasible or during operations that generate airborne concentrations exceeding the relevant standards.

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:

Particulates not otherwise specified: 5 mg/m3
TWA (Respirable): 15 mg/m3 ; TWA (total) , Ammonia : 50 ppm (35 mg/m3) TWA

ACGIH Threshold Limit Value (TLV) : Ammonia : 25 ppm (18 mg/m3) TWA ; 35 ppm (27 mg/m3) STEL

Section 9: Physical and Chemical Properties

Flash Point	:	Not applicable
Flammability/Explosive Limits (%)	:	LEL: Not applicable/UEL: Not applicable
Auto-Ignition Temperature	:	Not applicable
Appearance	:	Brown or black granules
Physical state	:	Solid
Odor	:	Slight ammonia odor
pH	:	7.0-8.0 in a 1% solution
Vapour pressure	:	Not applicable
Boiling point	:	Not applicable
Melting point	:	Decomposes (155^0C) before melting
Solubility in water	:	80-95%
Specific gravity	:	Not applicable
Bulk density	:	980 kg/m3

Section 10: Stability and Reactivity

Chemical stability	:	Stable under normal conditions of storage and handling. Decomposes at (155^0C)
Conditions to avoid	:	Extreme temperatures
Incompatible Materials	:	Avoid contact with alkaline materials
Hazardous decomposition	:	If heated to the point of decomposition, oxides of phosphorous, oxides of nitrogen and ammonia (NH_3) may be released.
Corrosiveness	:	May be corrosive to iron and mild steels, aluminium, zinc and copper
Hazardous Polymerization	:	Will not occur

Section 11: Toxicological Information

Acute oral Toxicity	:	LD_{50} (rat, oral) > 5000 mg/kg bw
Acute Inhalation Toxicity	:	Data not available
Acute Dermal Toxicity	:	LD_{50} (rat, dermal) > 5000 mg/kg bw
Mutagenesis	:	Data not available
Target Organ	:	Data not available
Developmental Toxicity	:	Data not available
Carcinogenicity	:	The ingredient(s) of this product is (are) not classified as carcinogenic by NTP (National Toxicology Program), IARC, or OSHA.

Section 12: Ecological Information

May release ammonium ions that are toxic to fish. Un-ionized ammonia concentrations above

0.02 mg/l are considered toxic in fresh water. May release phosphates which will result in algae growth, increased turbidity, and depleted oxygen. At extremely high concentrations, this may be hazardous to fish or other marine organisms. Release to watercourses may cause effects downstream. Fish 96 hour LC50, OECD Guidelines 203 (rainbow trout): >86mg/L Non-toxic to aquatic organisms as defined by USEPA.

Section 13: Disposal Considerations

As per the local regulations for proper disposal of this material.

Section 14: Transport Information

Motor vehicles Act 1988, Railway Guidelines & Rules

Section 15: Regulatory Information

Carcinogenicity by IARC? - Yes ( ) No (×) by NTP ? Yes ( ) No (×)

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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