

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 06.11.2012

Revision: 06.11.2012

### 1 Identification of the substance/mixture and of the company/undertaking

· **Product identifier**

· **Trade name:** Ammonium Phosphate dibasic

· **Article number:** 50-2620-01

· **CAS Number:**

7722-76-1

· **EC number:**

231-764-5

· **Registration number** 01-2119488166-29

· **Relevant identified uses of the substance or mixture and uses advised against**

Manufacture of Ammonium dihydrogenophosphate (MAP); Fertiliser ingredient, Use as Flame retardant agent (UCN B45000) for textiles, furnitures, wood, paper, matches, plastics & cellulotics; Manufacture of fire extinguisher powder; Nutrient for yeast and in many fermentation processes in food and pharmaceutical sectors (UCN 42300); manufacture of frits for enamel (UCN G15000); binder in refractory bricks, tiles [UCN code B20300: Other binding agents]; Flux for soldering for the manufacture of metal products, electronic and electrical equipement; Dental Investment Casting Material; Manufacture of washing and cleaning products; Use as laboratory chemical; Manufacture of Ammonium polyphosphates , Flame retardants, Paints and Coatings, Wild Fire eraser; Chemical synthesis; surface treatment; Purification of sugar.

· **Sector of Use**

SU0 Other

SU1 Agriculture, forestry, fishery

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU4 Manufacture of food products

SU5 Manufacture of textiles, leather, fur

SU6a Manufacture of wood and wood products

SU6b Manufacture of pulp, paper and paper products

SU8 Manufacture of bulk, large scale chemicals (including petroleum products)

SU9 Manufacture of fine chemicals

SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU12 Manufacture of plastics products, including compounding and conversion

SU13 Manufacture of other non-metallic mineral products, e.g. plasters, cement

SU15 Manufacture of fabricated metal products, except machinery and equipment

SU16 Manufacture of computer, electronic and optical products, electrical equipment

SU18 Manufacture of furniture

SU20 Health services

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SU23 Electricity, steam, gas water supply and sewage treatment

SU24 Scientific research and development

· **Product category**

PC0 Other

PC1 Adhesives, sealants

PC7 Base metals and alloys

PC9a Coatings and paints, thinners, paint removers

PC10: Building and construction preparations

PC12 Fertilizers

PC19 Intermediate

PC21 Laboratory chemicals

PC23 Leather tanning, dye, finishing, impregnation and care products

PC26 Paper and board dye, finishing and impregnation products: including bleaches and other processing aids

PC27 Plant protection products

PC28 Perfumes, fragrances

PC29 Pharmaceuticals

PC32 Polymer preparations and compounds

PC34 Textile dyes, finishing and impregnating products; including bleaches and other processing aids

PC35 Washing and cleaning products (including solvent based products)

PC36 Water softeners

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PC38 Welding and soldering products (with flux coatings or flux cores.), flux products

· **Process category**

PROC2 Use in closed, continuous process with occasional controlled exposure

PROC3 Use in closed batch process (synthesis or formulation)

PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises

PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)

PROC6 Calendering operations

PROC7 Industrial spraying

PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

PROC10 Roller application or brushing

PROC11 Non industrial spraying

PROC13 Treatment of articles by dipping and pouring

PROC14 Production of preparations or articles by tableting, compression, extrusion, pelletisation

PROC15 Use as laboratory reagent

PROC19 Hand-mixing with intimate contact and only PPE available

PROC21 Low energy manipulation of substances bound in materials and/or articles

PROC22 Potentially closed processing operations with minerals/metals at elevated temperature - Industrial setting

PROC23 Open processing and transfer operations with minerals/metals at elevated temperature

PROC24 High (mechanical) energy work-up of substances bound in materials and/or articles

PROC25 Other hot work operations with metals

PROC26 Handling of solid inorganic substances at ambient temperature

· **Environmental release category**

ERC1 Manufacture of substances

ERC2 Formulation of preparations

ERC3 Formulation in materials

ERC4 Industrial use of processing aids in processes and products, not becoming part of articles

ERC5 Industrial use resulting in inclusion into or onto a matrix

ERC6a Industrial use resulting in manufacture of another substance (use of intermediates)

ERC6b Industrial use of reactive processing aids

ERC6c Industrial use of monomers for manufacture of thermo-plastics

ERC6d Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

ERC7 Industrial use of substances in closed systems

ERC8a Wide dispersive indoor use of processing aids in open systems

ERC8b Wide dispersive indoor use of reactive substances in open systems

ERC8c Wide dispersive indoor use resulting in inclusion into or onto a matrix

ERC8d Wide dispersive outdoor use of processing aids in open systems

ERC9a Wide dispersive indoor use of substances in closed systems

ERC9b Wide dispersive outdoor use of substances in closed systems

ERC10a Wide dispersive outdoor use of long-life articles and materials with low release

ERC10b Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)

ERC11a Wide dispersive indoor use of long-life articles and materials with low release

ERC11b Wide dispersive indoor use of long-life articles and materials with high or intended release (including abrasive processing)

· **Article category**

AC 02: Other (intended to be released)

AC2 Machinery, mechanical appliances, electrical/electronic articles

AC3 Electrical batteries and accumulators

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AC4 Stone, plaster, cement, glass and ceramic articles

AC30 Other articles with intended release of substances

- **Application of the substance / the preparation**

The substance has many industrial, professional and consumer applications.

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Severn Biotech Ltd.

Unit 2,

Park Lane,

Kidderminster,

Worcestershire.

DY11 6TJ

UK

Tel: 0044 1562 825286

Fax: 0044 1562 825284

email: info@severnbiotech.com

- **Further information obtainable from:** Product safety department.

- **Emergency telephone number:** Tel: 0044 1562 825286 (not 24 hours)

## 2 Hazards identification

- **Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**

The substance is not classified according to the CLP regulation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.

- **Information concerning particular hazards for human and environment:** Not applicable.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008** Void

- **Hazard pictograms** Void

- **Signal word** Void

- **Hazard statements** Void

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization: Substances**

- **CAS No. Description**

7722-76-1 Ammonium dihydrogenorthophosphate

- **Identification number(s)**

- **EC number:** 231-764-5

## 4 First aid measures

- **Description of first aid measures**

- **General information:** No special measures required.

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:**

Immediately rinse with water.

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- If skin irritation continues, consult a doctor.
- **After eye contact:**  
Check for and remove any contact lenses.  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; call for medical help immediately.
- **Information for doctor:** Treat symptomatically and supportively.
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Ammonia
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.  
Do not inhale explosion gases or combustion gases.
- **Additional information** Cool endangered receptacles with water spray.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Avoid formation of dust.  
Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**  
No dangerous substances are released.  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Prevent formation of dust.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** The product is not flammable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.

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- **Information about storage in one common storage facility:**  
Do not store together with alkalis (caustic solutions).
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **DNELs**  
WORKERS  
Long-term exposure - systemic effects  
Dermal DN(M)EL  
- DNEL (Derived No Effect Level): 34.7 mg/kg bw/day  
  
Inhalation DN(M)EL  
- DNEL (Derived No Effect Level): 6.1 mg/m<sup>3</sup>  
  
GENERAL POPULATION  
Long-term exposure - systemic effects  
Dermal DN(M)EL  
- DNEL (Derived No Effect Level): 20.8 mg/kg bw/day  
  
Inhalation DN(M)EL  
- DNEL (Derived No Effect Level): 1.8 mg/m<sup>3</sup>  
  
Oral DN(M)EL  
- DNEL (Derived No Effect Level): 2.1 mg/kg bw/day
- **PNECs**  
:PNEC aqua (freshwater): 1.7 mg/L  
PNEC aqua (marine water): 0.17 mg/L  
PNEC aqua (intermittent releases): 17 mg/L  
PNEC STP 10 mg/L  
PNEC oral: No potential for bioaccumulation
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**  
Select PPE appropriate for the operations taking place taking into account the product properties.
- **General protective and hygienic measures:**  
Avoid close or long term contact with the skin.  
Do not eat, drink, smoke or sniff while working.  
Do not breath dust  
Avoid contact with the eyes.  
Wash hands before breaks and at the end of work.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

<b>Form:</b>	Powder
<b>Colour:</b>	Whitish
<b>Odour:</b>	Odourless
<b>Odour threshold:</b>	Not determined.

· **pH-value (50 g/l) at 20 °C:** approx. 4

#### · Change in condition

<b>Melting point/Melting range:</b>	197 °C
<b>Boiling point/Boiling range:</b>	Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

#### · Ignition temperature:

**Decomposition temperature:** Not determined.

· **Self-igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

#### · Explosion limits:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20 °C:** 1.8 g/cm<sup>3</sup>

<b>Bulk density at 20 °C:</b>	1100 kg/m <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.

· **Solubility in / Miscibility with water at 20 °C:** >1000 g/l

· **Partition coefficient (n-octanol/water):** Not determined.

#### · Viscosity:

<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.

· **Other information** No further relevant information available.

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### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Hypochlorites, strong acids and alkalis, copper and its alloys.
- **Hazardous decomposition products:**  
Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>)  
Ammonia

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

**LD/LC50 values relevant for classification:**

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50/4 h	>5 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.  
The substance is not subject to classification according to the latest version of the EU lists.

The substance is basically harmless when handled correctly. However the following points should be noted:

- High dust concentration of air-borne material may cause irritation of the nose and upper respiratory tract with symptoms such as sore throat and coughing
- Direct and prolonged skin contact may cause some irritation.
- May cause eye irritation following direct contact.
- The material is of low toxicity. However, ingestion of very large quantities may give rise to gastrointestinal disorders.
- No long term adverse effects are known.

### 12 Ecological information

- **Toxicity**

**Aquatic toxicity:**

EC50	>1000 mg/kg (daphnia)
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- **Persistence and degradability**  
Phosphates are translocated in the soil only over very short periods and are then immobilised.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** Product is not expected to bioaccumulate.
- **Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Contact waste processors for recycling information.  
Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.
- **European waste catalogue**  
Waste key numbers in accordance with the European Waste catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· <b>UN-Number</b> · <b>ADR, ADN, IMDG, IATA</b>	Void
· <b>UN proper shipping name</b> · <b>ADR, ADN, IMDG, IATA</b>	Void
· <b>Transport hazard class(es)</b> · <b>ADR, ADN, IMDG, IATA</b> · <b>Class</b>	Void
· <b>Packing group</b> · <b>ADR, IMDG, IATA</b>	Void
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.
· <b>UN "Model Regulation":</b>	-

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**15 Regulatory information**

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Product safety department.

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