

SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1 Product Identifier** Solar PK

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

Relevant uses: Fertilizer. For professional use only.  
Uses advised against: All uses not specified in this section or in section 7.3

**1.3. Details of the supplier of the safety data sheet**

Company: Indigrow Ltd, The Old Bakery, Hyde End Lane, Brimpton, Berkshire, RG7 4RH. UK.  
Phone: +44 (0) 1189 710 995  
Email: growth@indigrow.com

**1.4. Emergency telephone number** +44 (0) 7725 962 366

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SECTION 2: Hazards Identification

**2.1. Classification of the substance or mixture**

Directive 67/548/EC and Directive 1999/45/EC:  
This product was classified in accordance with Directive 67/548/EC and Directive 1999/45/EC, adapting the requirements to Regulation (EC) n°1907/2006 (REACH regulation).  
Xi: R36/38 - Irritating to eyes and skin

CLP Regulation (EC) n° 1272/2008:  
Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.  
Eye Irrit. 2: Eye irritation, Category 2  
Skin Irrit. 2: Dermal irritation, Category 2

**2.2. Label elements**

CLP Regulation (EC) n° 1272/2008:  
Warning



Hazard indications: Eye Irrit. 2: H319 - Causes serious eye irritation  
Skin Irrit. 2: H315 - Causes skin irritation  
Cautionary advice: P264: Wash thoroughly after use  
P302+P352: IF ON SKIN: Wash with plenty of soap and water  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321: Specific treatment is urgently needed (go to see a doctor with the Safety data sheet for this product)  
P332+P313: If skin irritation occurs: Get medical advice/attention  
P362: Take off contaminated clothing and wash before reuse





Supplementary information: Non-applicable

**2.3. Other hazards**

Non-applicable

**SECTION 3: Composition/Information on Ingredients**

Chemical description: Miscellaneous products  
 Components: In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical Name/Classification	Concentration
CAS: 13492-26-7 EC: 236-809-2 Index: Non-applicable REACH: Non-applicable	Dipotassium phosphate (Self-classified)	20-<25%
	Directive 67/548/EC Xi: R36/38	
	Regulation 1272/2008 Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	
CAS: 13446-12-3 EC: 236-594-5 Index: Non-applicable REACH: Non-applicable	Monoammonium Phosphate (Self-classified)	20-<25%
	Directive 67/548/EC Xi: R36/38	
	Regulation 1272/2008 Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	

To obtain more information on the risk of the substances consult sections 8, 11, 12 and 16.

**SECTION 4: First-Aid Measures**

**4.1. Description of first aid measures**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the MSDS of this product.

- By inhalation: This product does not contain substances classified as dangerous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.
- By skin contact: Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.
- By eye contact: Rinse eyes thoroughly with luke warm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the MSDS of the product.
- By consumption: Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**4.2. Most important symptoms and effects, both acute and delayed**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3. Indication of any immediate medical attention and special treatment needed**

Non-applicable

**SECTION 5: Fire-Fighting Measures**

**5.1. Extinguishing media**

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

### 5.2. Special hazards arising from the substance or mixture

As a result of combustion or thermal decomposition reactive subproducts are created that can become highly toxic and, consequently, can present a serious health risk.

### 5.3. Advice for fire-fighters

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

### Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

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## SECTION 6: Accidental Release Measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

### 6.2. Environmental precautions

This product is not classified as dangerous to the environment. Keep product away from drains, surface and underground water.

### 6.3. Methods and material for containment and cleaning up

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

### 6.4. Reference to other sections

See sections 8 and 13.

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## SECTION 7: Handling and Storage

### 7.1. Precautions for safe handling

Precautions for safe manipulation: Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

Technical recommendations for the prevention of fires and explosions:

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

Technical recommendations to prevent ergonomic and toxicological risks:

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

Technical recommendations to prevent environmental risks:

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3).

**7.2. Conditions for safe storage, including any incompatibilities**

Technical measures for storage: Minimum Temp.: 0°C  
 Maximum Temp.: 40°C  
 Maximum time: 24 Months

General conditions for storage: Avoid sources of heat, radiation, static electricity and contact with food

**7.3. Specific end use(s)**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: Exposure Controls/Personal Protection

**8.1. Control parameters**

Substances whose occupational exposure limits have to be monitored in the work environment. There are no environmental limits for the substances contained in the product.

DNEL (Workers): Non-applicable  
 DNEL (Population): Non-applicable  
 PNEC: Non-applicable

**8.2. Exposure controls**

General security and hygiene measures in the work place:

As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding "CE marking" in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (Storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

Respiratory protection:	PPE:	Filter mask for particles
	Labelling:	CE CAT III
	CEN Standard:	EN 149:2001+A1:2009
	Remarks:	Replace when an increase in resistance to breathing is observed.
Specific protection for the hands:	PPE:	Chemical protective gloves
	Labelling:	CE CAT I
	CEN Standard:	EN 374-1:2003; EN 374-3:2003/AC:2006; EN 420:2003+A1:2009
	Remarks:	Replace the gloves at any sign of deterioration.
Ocular and facial protection:	PPE:	Panoramic glasses against liquid splash
	Labelling:	CE CAT II
	CEN Standard:	EN 166:2001; EN 172:1994/A1:2000; EN 172:1994/A2:2001; EN 165:2005
	Remarks:	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.
Bodily protection:	PPE:	Work clothing
	Labelling:	CE CAT I
	CEN Standard:	EN 340:2003
	Remarks:	For professional use only.
	PPE:	Anti-slip work shoes
	Labelling:	CE CAT II
	CEN Standard:	EN ISO 20347:2004/A1:2007; EN ISO 20344:2011
	Remarks:	None
Additional emergency measures:	Emergency measure:	Emergency shower
	Standards:	ANSI Z358-1; ISO 3864-1:2002
	Emergency measure:	Eyewash stations
	Standards:	DIN 12 899; ISO 3864-1:2002

Environmental exposure controls: In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C:	Liquid
	Appearance:	Characteristic
	Colour:	Brown
	Odor:	Characteristic
Volatility:	Boiling point at atmospheric pressure:	100°C
Product description:	Density at 20°C:	1025 - 1045 kg/m <sup>3</sup>
	Relative density at 20°C:	1.34 - 1.36
	pH:	4.5 - 5.5
	Solubility property:	Miscible
Flammability:	Flash Point:	Non Flammable (>60°C)

### 9.2. Other information

Surface tension at 20 °C:	Non-applicable
Refraction index:	39-43

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

No hazardous reactions are expected if the following technical instructions storage of chemicals. See section 7.

### 10.2. Chemical stability

Chemically stable under the conditions of storage, handling and use.

### 10.3. Possibility of hazardous reactions

Under the specified conditions, hazardous reactions that lead excessive temperatures or pressure are not expected.

### 10.4. Conditions to avoid

Applicable for handling and storage at room temperature:

Shock and friction:	Not applicable
Contact with air:	Not applicable
Increase in temperature:	Not applicable
Sunlight:	Not applicable
Humidity:	Not applicable

### 10.5. Incompatible materials

Acids:	Not applicable
Water:	Not applicable
Combustive materials:	Not applicable
Combustible materials:	Not applicable
Others:	Not applicable

### 10.6. Hazardous decomposition products

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

**SECTION 11: Toxicological Information**

**11.1. Information on toxicological effects**

No experimental information is available on the product itself in relation to the toxicological properties. When performing the danger classification on corrosive or irritant effects the recommendations included in section 3.2.5 of Annex VI of Directive 67/548/EC, in paragraphs b) and c) of section 3 of article 6 of Directive 1999/45/EC and in section 3.2.3.3.5. of Annex I of CLP Regulation were taken into account.

- Dangerous health implications:** In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure.
- Ingestion:** Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Inhalation:** Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Contact with the skin and the eyes:** Produces skin inflammation.
- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):** Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Sensitizing effects:** Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensibilizing effects. For more information see section 3.
- Specific target organ toxicity (STOT)-time exposure:** Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Specific target organ toxicity (STOT)-repeated exposure:** Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Aspiration hazard:** Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Monoammonium Phosphate CAS: 13446-12-3 EC: 236-594-5	LD50 oral	2000 mg/kg	
	LD50 dermal	2000 mg/kg	
	LC50 inhalation	Non-applicable	

**SECTION 12: Ecological Information**

**12.1. Toxicity**

Not available

**12.2. Persistence and degradability**

Not available

**12.3. Bioaccumulative potential**

Not available

**12.4. Mobility in soil**

Not available

**12.5. Results of PBT and vPvB assessment**

Not available

**12.6. Other adverse effects**

Not described

SECTION 13: Disposal Considerations

**13.1. Waste treatment methods**

Code	Description	Waste class (Directive 2008/98/EC)
-	It is not possible to assign a specific code, as it depends on the intended use by the user	Dangerous

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2000/532/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated.

Community legislation:

Directive 2008/98/EC, 2000/532/EC: Commission Decision of 3 May 2000

SECTION 14: Transport Information

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: Regulatory Information

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Active substances for which a decision of non-inclusion onto Annex I (Regulation (EU) No 528/2012): Non-applicable

Regulation (EC) 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII, REACH): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**15.2. Chemical Safety Assessment**

The supplier has not carried out evaluation of chemical safety.

## 16. OTHER INFORMATION

The information contained herein relates only to the designated formulation and may not be valid if product is used in combination with other substances. The information is to the best of our knowledge, belief and understanding, true, accurate and reliable at the date of issue. However, the information may neither be exhaustive or complete, and no warranty, guarantee or liability concerning the accuracy or completeness of the information is expressed or implied. It is the user's risk and sole responsibility to verify and satisfy their own criteria and duty of care concerning the validity of the information in relation to their application of the product.

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