

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: Fertiliser. 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

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

GB CLP Regulation: Classification of this product has been carried out in accordance with GB CLP Regulation.
 Eye Irrit. 2: Eye irritation, Category 2, H319

2.2. Label elements

GB CLP Regulation: Warning



Hazard statements: Eye Irrit. 2: H319 - Causes serious eye irritation.
 Precautionary statements: P264: Wash thoroughly after use.
 P280: Wear protective gloves/protective clothing/eye protection/protective footwear.
 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.

2.3. Other hazards

Product fails to meet PBT/vPvB criteria.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Non-applicable.

3.2. Mixtures

Chemical description: Mixture composed of inorganic substances
 Components: In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

| Chemical Name | EINECS-No. | CAS-No. | REACH number | CLP Classification | Percent [%] |
|---------------------------------------|------------|------------|--------------|------------------------------|-------------|
| Phosphonic acid, potassium salt (1:1) | - | 13977-65-6 | - | Eye Irrit. 2: H319 - Warning | 25-<50% |

To obtain more information on the hazards of the substances consult sections 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 SDS of this product.

- By inhalation: This product does not contain substances classified as hazardous 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: In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety data Sheet
- By eye contact: Rinse eyes thoroughly with lukewarm 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, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.
- By ingestion/aspiration: In case of consumption, seek immediate medical assistance showing the SDS for the product.

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

Suitable extinguishing media: Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media: Non-applicable

5.2. Special hazards arising from the substance or mixture

As a result of combustion or thermal decomposition reactive sub-products 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 self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...).

Additional provisions: Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: 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.

For emergency responders: See section 8.

6.2. Environmental precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground 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.

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, handling 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 temperature: 5°C

Maximum temperature: 30°C

General conditions for storage: Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5.

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 workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

| Identification | Occupational exposure limits | |
|--|------------------------------|-----------------------|
| potassium hydroxide WEL (8h) CAS: 1310-58-3 | WEL (8h) | - |
| | WEL (15 min) | 2.0 mg/m ³ |

DNEL (Workers):

| Identification | | Short exposure | | Long exposure | |
|---|------------|----------------|----------------|------------------------|----------------|
| | | Systemic | Local | Systemic | Local |
| Phosphonic acid, potassium salt (1:1) CAS: 13977-65-6 EC: 604-162-9 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 59 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 41.2 mg/m ³ | Non-applicable |

DNEL (General Population):

| Identification | | Short exposure | | Long exposure | |
|---|------------|----------------|----------------|------------------------|----------------|
| | | Systemic | Local | Systemic | Local |
| Phosphonic acid, potassium salt (1:1) CAS: 13977-65-6 EC: 604-162-9 | Oral | Non-applicable | Non-applicable | 2.9 mg/kg | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 29 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 10.2 mg/m ³ | Non-applicable |

PNEC:

| Identification | | | | |
|---|--------------|----------------|-------------------------|------------|
| Phosphonic acid, potassium salt (1:1) CAS: 13977-65-6 EC: 604-162-9 | STP | 100 mg/L | Fresh water | 0.137 mg/L |
| | Soil | 1 mg/kg | Marine water | 0.014 mg/L |
| | Intermittent | 1.37 mg/L | Sediment (Fresh water) | 0.117 mg/L |
| | Oral | Non-applicable | Sediment (Marine water) | 0.012 mg/L |

8.2. Exposure controls

General security and hygiene measures in the work place:

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>>. For more information on Personal Protective 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:

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

Specific protection for the hands:

Mandatory hand protection

PPE: Protective gloves against minor risks

Remarks: Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

Ocular and facial protection:

Mandatory face protection

PPE: Panoramic glasses against splash/projections.

Remarks: Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

Body protection:

PPE: Work clothing

Remarks: Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.

Mandatory foot protection

PPE: Anti-slip work shoes

Remarks: Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

Additional emergency measures:

Emergency shower

Standards: ANSI Z358-1; ISO 3864-1:2011, ISO 3864-4:2011

Eyewash stations

Standards: DIN 12 899 ;ISO 3864-1:2011, ISO 3864-4:2011

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

| | |
|-------------------|-------------------|
| State: | Liquid |
| Colour: | Colourless |
| Odour: | Perceptible odour |
| Relative density: | 1.35 - 1.39 kg/l |
| pH: | 3.5 - 4.5 |

9.2. Other information

Non-applicable

SECTION 10: Stability and Reactivity

10.1. Reactivity

No hazardous reactions are expected because the product is stable under recommended storage conditions. 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 to excessive temperatures or pressure are not expected.

10.4. Conditions to avoid

Not applicable.

10.5. Incompatible materials

Avoid strong acids.

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 (CO₂), carbon monoxide and other organic compounds.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

- Ingestion (acute effect): Acute toxicity: Based on available data, the classification criteria are not met.
Corrosivity/Irritability: Based on available data, the classification criteria are not met.
- Inhalation (acute effect): Acute toxicity: Based on available data, the classification criteria are not met.
Corrosivity/Irritability: Based on available data, the classification criteria are not met.
- Contact with the skin and the eyes (acute effect): Contact with the skin: Based on available data, the classification criteria are not met.
Contact with the eyes: Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction): Carcinogenicity: Based on available data, the classification criteria are not met.
IARC: Non-applicable
Mutagenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
- Sensitizing effects: Respiratory: Based on available data, the classification criteria are not met.
Cutaneous: Based on available data, the classification criteria are not met.
- Specific target organ toxicity (STOT) - single exposure: Based on available data, the classification criteria are not met.
- Specific target organ toxicity (STOT)-repeated exposure: Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met.
Skin: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.
- Other information: Non-applicable
- Specific toxicology information on the substances: Not available
- Acute Toxicity Estimate (ATE mix): Oral: >5000 mg/kg (Calculation method)
Dermal: >5000 mg/kg (Calculation method)
Inhalation: >20 mg/L (4 h) (Calculation method)

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

Product fails to meet PBT/vPvB criteria.

12.6. Other adverse effects

Not described.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

| | |
|---|---|
| Waste treatment methods: | Code: 06 10 02 |
| | Description: wastes containing hazardous substances |
| | Waste class: Dangerous |
| Type of waste: | HP4 Irritant — skin irritation and eye damage |
| Waste management (disposal and evaluation): | Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste Regulations 2011, 2011 No. 988. As under 15 01 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 UK REACH the provisions related to waste management are stated: UK legislation: The Waste Regulations 2011. |

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

| | |
|---|---|
| Substances listed in UK REACH Authorisation List (Annex 14): | Non-applicable |
| Substances listed in UK candidate list of substances of very high concern (SVHCs): | Non-applicable |
| The Control of Major Accident Hazards Regulations 2015: | Non-applicable |
| Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc ...): | |
| Shall not be used in: | - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, tricks and jokes, games for one or more participants, or any article intended to be used as such, even with, ornamental aspects |
| Specific provisions in terms of protecting people or the environment: | It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product. |
| Other legislation: | The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020. The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020. Control of Substances Hazardous to Health Regulations 2002 (as amended) EH40/2005 Workplace exposure limits. |

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.
