



Ultimate PK

SDS = Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

1.1. Product identifier

Product form : Mixture
Product name : Ultimate PK
Product code : 300.095.000

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use
Use of the substance/mixture : Fertilizer

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Mills Nutrients B.V.
Aalsmeerderweg 249K
1432 CM Aalsmeer - The Netherlands
T +31 (0)20 5533957
info@mills-nutrients.com - www.mills-nutrients.com

1.4. Emergency telephone number

Emergency number : National Poisons Information Service
+44 870 600 6266
worldwide: <http://www.who.int/ipcs/poisons/centre/directory/en>

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : No additional information available.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium Phosphite	(CAS No) 13977-65-6 (EC no) 604-162-9 (REACH-no) 01-2119988836-13	0 - 10	Eye Irrit. 2, H319

Full text of H-phrases: see section 16

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
- First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
- First-aid measures after skin contact : Wash immediately with lots of water. Soap may be used. In all cases of doubt, or when symptoms persist, seek medical attention.
- First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.
- First-aid measures after ingestion : Rinse mouth with water. Do not induce vomiting. Give 2-3 glasses of water to drink. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

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

- Symptoms/injuries after inhalation : None under normal use.
- Symptoms/injuries after skin contact : Contact during a long period may cause light irritation.
- Symptoms/injuries after eye contact : Irritation of the eye tissue.
- Symptoms/injuries after ingestion : Nausea. Vomiting. Diarrhoea. AFTER ABSORPTION OF HIGH QUANTITIES: Disturbances of heart rate. Respiratory difficulties.
- Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Gastrointestinal complaints. Affection of the renal tissue. Disturbed tactile sensibility. Paralysis.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : EXTINGUISHING MEDIA FOR SURROUNDING FIRES: All extinguishing media allowed. Adapt extinguishing media to the environment.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Non combustible.
- Explosion hazard : Not applicable.

5.3. Advice for firefighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
- Protection during firefighting : Fire fighters have to wear suited clothing and an independent repertory device (SCBA) that covers the face completely with pressure. Clothing for fire fighters (including helmets, protective boots and gloves) according to European Regulation EN 469, give a basic protection level for an incident with chemicals.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Ensure adequate ventilation.

6.1.1. For non-emergency personnel

- Protective equipment : Wear suitable protective clothing. See "Material-Handling" to select protective clothing.
- Emergency procedures : Clear the danger area. Notify experts. Mark the danger area. Corrosion-proof appliances. Wash contaminated clothes.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing. Reactivity hazard: compressed air/oxygen apparatus.

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

- For containment : Plug the leak, cut off the supply. Dam up the liquid spill. Clean spills promptly.
- Methods for cleaning up : Collect all waste in suitable and labelled containers and dispose according to local legislation. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Scoop absorbed substance into closing containers. Wash down leftovers with plenty of water. Wash clothing and equipment after handling.

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6.4. Reference to other sections

Concerning personal protective equipment to use, see item 8. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure adequate ventilation. Use personal protective equipment as required. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep container tightly closed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep container closed when not in use.
Storage conditions	: Store in original container.
Storage temperature	: 10 - 30 °C
Heat and ignition sources	: KEEP SUBSTANCE AWAY FROM: heat sources.
Storage area	: Keep container in a well-ventilated place. Keep out of direct sunlight. Meet the legal requirements.
Special rules on packaging	: meet the legal requirements. correctly labelled. Secure fragile packagings in solid containers.
Packaging materials	: SUITABLE MATERIAL: stainless steel, synthetic material.

7.3. Specific end use(s)

Fertilizer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls	: No specific measures are necessary.
Personal protective equipment	: Safety glasses. Gloves. Protective clothing.
Hand protection	: Gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Respiratory protection not required in normal conditions. Ensure adequate air ventilation.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: liquid.
Colour	: No data available
Odour	: characteristic.
Odour threshold	: No data available
pH	: 7
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available

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Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.12 kg/l
Solubility	: Soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No direct explosion hazard.
Oxidising properties	: Not applicable.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with (some) acids/bases.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

May react violently with reducing agents.

10.4. Conditions to avoid

Avoid high temperatures. Keep out of frost.

10.5. Incompatible materials

May be corrosive to metals. KEEP SUBSTANCE AWAY FROM: Strong acids. Oxidizing agent. Reducing agent. halogens. Strong bases.

10.6. Hazardous decomposition products

On heating/burning: release of toxic and corrosive gases/vapours nitrous vapours. On heating/burning: release of toxic and corrosive gases/vapours (sulphur oxides).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

Potassium Phosphite (13977-65-6)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 5050 mg/kg

Skin corrosion/irritation : Not classified
pH: 7

Serious eye damage/irritation : Not classified
pH: 7

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Potassium Phosphite (13977-65-6)	
NOAEL (acute, oral, animal/male)	> 1000 mg/kg bodyweight

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Potassium Phosphite (13977-65-6)	
LC50 fish 1	> 200 mg/l
LC50 other aquatic organisms 1	13.75 mg/l

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Potassium Phosphite (13977-65-6)	
EC50 Daphnia 1	> 200 mg/l

12.2. Persistence and degradability

Potassium Phosphite (13977-65-6)	
Persistence and degradability	Biodegradability: not applicable.

12.3. Bioaccumulative potential

Ultimate PK	
Bioaccumulative potential	No bioaccumulation data available.

Potassium Phosphite (13977-65-6)	
Log Pow	insoluble in octanol
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

Potassium Phosphite (13977-65-6)	
Ecology - soil	Soluble in water.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Do not discharge into drains or rivers. Recycle product or dispose properly. Remove to an authorized waste treatment plant.
Sewage disposal recommendations	: Remove waste in accordance with local and/or national regulations.
Additional information	: Non hazardous waste.
European List of Waste (LoW) code	: 06 03 14 - solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

SECTION 14: Transport information

Not regulated for transport

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list $\geq 0,1\%$ / SCL
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference	: Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

Waterbezwaarlijkheid	: 11 - Weinig schadelijk voor in het water levende organismen
SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: None of the components are listed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

Complete review of safety data sheet.

Abbreviations and acronyms:

CLP	CLP = Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
SDS	SDS = Safety Data Sheet
REACH	REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
EC50	Median effective concentration
LC50	Median lethal concentration
NOAEL	No-Observed Adverse Effect Level
LD50	Median lethal dose

Data sources

: ECHA Website: Information on Registered Substances
Handbook of Chemistry and Physics CRC Press Inc
Information suppliers
BIG-database.

Other information

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Full text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation
EUH210	Safety data sheet available on request

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product