

[In accordance with the criteria of Regulation No 1907/2006 (REACH) with further changes]

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

1.1. Product identifier.

Product name: Potassium Sorbate PS-1000
Chemical name: Potassium sorbate
Chemical formula: $C_6H_7KO_2$
CAS No.: 24634-61-5
Synonyms: Potassium (E,E)-hexa-2,4-dienoate; 2,4-Hexadienoic acid, potassium salt, (2E,4E)-; E202

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

Relevant identified uses: Food industry
Uses advised against: not determined

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

Supplier: CHEMNOVATIC Sp. z o.o. Sp. k.
Address: Dobrzańskiego 3/BS002, 20-262 Lublin, POLAND
Phone: +48 814754442
E-mail address of the person responsible for the information card: office@chemnovatic.com

1.4. Emergency telephone number.

112 (general emergency phone number)

Section 2: Hazards Identification

2.1. Classification of the substance or mixture.

Classification according to 1272/2008/EC
Eye Irrit. 2 - Eye Irritation, category 2; H319

2.2. Label elements

Hazard symbols and signal words



Warning

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P264 Wash hands and face with plenty of soap and water thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

The substance does not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation. May form explosive dust-air mixture if dispersed.



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Section 3: Composition/Information on ingredients

3.1 Substances

No.	Chemical name	Percentage	CAS	EC (EINECS)	Index No./ REACH Registration No.	Classification according to 1272/2008/EC
1.	Potassium sorbate	≥ 99,0 %	24634-61-5	246-376-1	019-003-00-3/not applicable	Eye Irrit. 2; H319

3.2 Mixtures

Not applicable.

Section 4: First aid measures

4.1. Description of first aid measures.

Skin contact: Remove contaminated clothing immediately, wash skin with plenty of soap and water and rinse thoroughly. If irritation persists, consult a dermatologist.

Eye contact: Rinse with plenty of water for at least 15 minutes with the eyelid held wide open. Avoid strong stream of water because of the risk of mechanical damage to the cornea. If irritation persists, consult an ophthalmologist.

Ingestion: Rinse mouth with water and give the sufferer a large amount of water to drink. Do not induce vomiting. Consult a doctor if you feel unwell.

Inhalation: Take the injured out of the place of exposure, provide fresh air. The person giving aid should be equipped with appropriate respiratory protection. If disturbing symptoms occur, consult a doctor.

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

May cause eye irritation.

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

Symptomatic treatment.

Section 5: Firefighting measures

5.1. Extinguishing media.

Suitable extinguishing media: Water spray, carbon dioxide (CO₂), foam, extinguishing powder.

Unsuitable extinguishing media: No information available.

5.2. Special hazards arising from the substance or mixture.

Combustible substance, danger of dust explosion. Keep away from fire sources. In a fire, hazardous gases including carbon monoxide may be released.

5.3. Advice for firefighters.

Do not stay in the danger zone without special protective clothing and individual breathing apparatus.

Do not allow the run-off of fire-fighting water to drains, waters and soil.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures.

For non-emergency personnel:



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Avoid dust formation; do not inhale the dust. Avoid eyes and skin contamination. Do not walk on spilled material. Provide good ventilation in closed rooms. Use personal protective clothing and equipment. Leave the danger zone as soon as possible.

For emergency responders:

Make sure that the failure and its effects are removed only by trained personnel. Use personal protective clothing and equipment.

6.2. Environmental precautions.

Do not allow product to reach sewage system, surface water, groundwater and soil.

6.3. Methods and material for containment and cleaning up.

Collect carefully when dry, place in airtight containers and send for disposal. Clean contaminated area.

6.4. References to other sections.

Appropriate conduct with waste product - see section 13. Personal protective equipment - see section 8.

Section 7: Handling and storage

7.1. Precautions for safe handling.

When using, do not eat, drink, avoid contact with the substance, avoid inhaling dusts, observe the principles of personal hygiene, use protective clothing and equipment (as specified in section 8), work in well-ventilated rooms. Protect against electrostatic discharges in order to minimize the risk of ignition of the dust.

7.2. Conditions for safe storage, including any incompatibilities.

Keep containers tightly closed in cool, dry and well-ventilated area.

7.3. Specific end use(s).

No information about the applications other than those listed in subsection 1.2.

Section 8: Exposure control/personal protection

8.1. Control parameters.

Does not contain substances with occupational exposure limit values.

D(M)NEL and PNEC values:

DNEL/DMEL (Workers):

Long-term - systemic effects, dermal: 40 mg/kg body weight/day

Long-term - systemic effects, inhalation: 17.63 mg/m³

DNEL/DMEL (General population):

Long-term - systemic effects, orally: 2 mg/kg body weight/day

Long-term - systemic effects, inhalation: 52.17 mg/m³

Long-term - systemic effects, dermal: 20 mg/kg body weight/day

Long-term - local effects, dermal: 0.17 mg/cm²

Long-term - local effects, inhalation: 26.08 mg/m³

PNEC (Water):

PNEC freshwater: 1 mg/l

PNEC marine water: 0.1 mg/l

PNEC (Sediment):

PNEC freshwater sediment: 3.6 mg/kg dry weight

PNEC marine sediment: 0.36 mg/kg dry weight

PNEC (Soil)

PNEC soil: 1.67 mg/kg dry weight

PNEC (Sewage Treatment Plant)



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PNEC Sewage treatment plant: 10 mg/l.

8.2. Exposure controls.

Technical control measures applied:

Provide adequate ventilation, including adequate local exhaust ventilation, if dust formation is likely.

Individual protective equipment, such as personal protective equipment:

Protective clothing should be selected appropriately for the workplace, depending on concentration and amount of the substance. The resistance of the protective clothing to chemicals should be ascertained by the manufacturer.

a) Eye or face protection: use goggles.

b) Skin protection:

- Hand protection: use protective gloves resistant to chemicals in accordance with EN 374, made of e.g. 1.5 mm thick nitrile rubber with a breakthrough time of 480 minutes, butyl rubber 0.3 mm thick and a breakthrough time of 480 minutes

- Other: recommended - protective clothing

protective and hygienic measures: immediately change contaminated clothes. Wash hands and face after working with this substance.

Do not inhale the substance. Never eat at the workplace.

c) Respiratory protection: necessary - if dusts are generated - use a dust mask or a full-face mask with air supply for better protection.

Environmental exposure controls:

Do not allow the product to get into the sewage system, water and soil.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties.

a) physical state:	solid
b) colour:	white
c) odour:	odorless
d) melting point/freezing point:	250 °C (for melting)
e) boiling point or initial boiling point and boiling range:	not determined
f) flammability:	product not classified as flammable
g) lower and upper explosion limit:	not determined
h) flash point:	not determined
i) auto-ignition temperature:	178 °C, 1013 hPa
j) decomposition temperature:	not determined
k) pH:	5-7 (10 % solution)
l) kinematic viscosity:	not determined
m) solubility:	in water: 1.95 g/l, 20 °C in organic solvents: Potassium sorbate is slightly soluble in pure methanol (78.2-80.2 mg/l) and in neat p-xylene (30.2-30.8 mg/l); in the range of 10-30 °C.
n) partition coefficient n-octanol/water (log value):	-1,72, 20 °C
o) vapour pressure:	0 hPa at 20 °C
p) density and/or relative density:	1,36 g/cm ³ at 20 °C
q) relative vapour density:	not applicable
r) particle characteristics:	not determined



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9.2. Other information.

Surface tension: 72.6 mN/m (at 20 °C; 1000 mg/l)

Dissociation constant: pKa at 20 °C: 4.69

Section 10: Stability and reactivity

10.1. Reactivity.

Under the conditions of storage and handling as intended - no reactivity.

10.2. Chemical stability.

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions.

May react dangerously with oxidants.

10.4. Conditions to avoid.

Strong heating.

10.5. Incompatible materials.

Oxidizers.

10.6. Hazardous decomposition products.

Carbon oxides (CO, CO₂).

Section 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008.

a) Acute toxicity

LD50 (oral rat): 10500 mg/kg

LD50 (dermal rat): >2000 mg/kg

b) Skin corrosion/irritation

Not classified.

c) Serious eye damage/irritation

May cause eye irritation.

d) Respiratory or skin sensitization

Not classified.

e) Germ cell mutagenicity

Not classified.

f) Carcinogenicity

Not classified.

g) Reproductive toxicity

Not classified.

Effects on fertility:

NOAEL: 1000 mg/kg body weight/day

Developmental Toxicity:

NOAEL: 300 mg/kg body weight/day

h) STOT-single exposure

Not classified.

i) STOT-repeated exposure

Not classified.



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NOAEL: 6792 mg/kg body weight/day (sub-chronic); (rat [common rodent])

j) Aspiration hazard

Not classified.

11.2. Information on other hazards.

No data available.

Section 12: Ecological Information

12.1. Toxicity.

Ecotoxic effects:

LC50 (freshwater fish): 500 mg/l

EC50 / LC50 (freshwater invertebrates): 982 mg/l

EC50 / LC50 (freshwater algae): 480 mg/l

EC10 / LC10 or NOEC (freshwater invertebrates): 50 mg/l

EC10 / LC10 or NOEC (freshwater algae): 97 mg/l

EC50 or LC50 (soil macroorganisms): 864 mg/kg dry weight

EC10 / LC10 or NOEC (soil macroorganisms): 582 mg/kg dry weight

EC50 or LC50 (terrestrial plants): 83.6 mg/kg dry weight

EC10 / LC10 or NOEC (terrestrial plants): 100 mg/kg dry weight

EC50 or LC50 (soil macroorganisms): 5000 mg/kg dry weight

EC10 / LC10 or NOEC (soil microorganisms): 500 mg/kg dry weight

EC50 / LC50 (aquatic microorganisms): 100 mg/l

EC10 / LC10 or NOEC (aquatic microorganisms): 100 mg/l

12.2. Persistence and degradability.

Easily biodegradable (sorbic acid)

Half-life in air: 7,626 hours

Half-life in water: 6,7 years

12.3. Bioaccumulative potential.

Log Kow: -1.72 at 20 °C

BCF: 0,007 (aquatic species)

BCF: 0,84 (terrestrial species)

Bioaccumulative potential: Low potential for bioaccumulation in terrestrial ecosystems.

12.4. Mobility in soil.

High mobility in soil and therefore high potential for leaching into groundwater.

12.5. Results of PBT and vPvB assessment.

The substance does not meet the PBT and vPvB criteria.

12.6. Endocrine disrupting properties.

No data available.

12.7. Other adverse effects.

Do not allow product to enter waters, sewage or soil.

Section 13: Disposal considerations

13.1. Waste treatment methods.

The substance and packaging should be disposed of in accordance with the applicable environmental protection laws and regulations.

After cleaning, reusable packaging can be reused.



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Section 14: Transport Information

- 14.1 UN number or ID number**
Not applicable
- 14.2 UN proper shipping name**
Not applicable
- 14.3 Transport hazard class(es)**
Not applicable
- 14.4 Packing group**
Not applicable
- 14.5 Environmental hazards**
Not applicable
- 14.6 Special precautions for user**
Not applicable
- 14.7 Maritime transport in bulk according to IMO instrments**
Not applicable.

Section 15: Regulatory Information.

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.**
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).
COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
- 15.2. Chemical safety assessment.**
Chemical safety assessment was not performed for the substance.

Section 16: Other Information.

a) revised safety data sheet- changes

First version.

b) legend to abbreviations and acronyms used in the safety data sheet

PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance
CAS	Chemical Abstract Service
EC No.	is a unique seven-digit identifier that is assigned to chemical substances for regulatory purposes within the European Union by the regulatory authorities.
LD50	lethal dose, the point where 50% of test subjects exposed would die



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LC50	lethal concentration, the point where 50% of test subjects exposed would die
EC50	half maximal effective concentration
NOAEL	no observed adverse effect level
NOEC	no observed effects concentration
DNEL	Derived No-Effect Level
DMEL	Derived Minimal Effect Level
PNEC	predicted no-effect concentration with no adverse effect
UN number	is four-digit number that identify hazardous substances

c) list of relevant H phrases, hazard statements, safety phrases and/or precautionary statements- full text

H319 Causes serious eye irritation

d) trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

e) other data

The above information is prepared on the basis of current state of knowledge and relates to the product in the form in which it is used. Data relating to the product are presented in order to include safety requirements, and not to guarantee their particular properties.

In the event when conditions of application of the product are beyond control of the manufacturer, responsibility for safe use of the product is borne by the user.

The Employer is obligated to inform all employees who have contact with the product, about hazards and personal protection equipment specified in this material safety data sheet.

This material safety data sheet has been prepared on the basis of MSDS provided by the manufacturer and/or web databases and the binding regulations regarding hazardous substances and chemical agents.

The product is classified as hazardous. EXPOSURE SCENARIOS are not required.