

Potassium Sorbate

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 12/7/2022 Revision date: 12/7/2022 Version: 1.0

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

1.1. Product identifier

Product form	: Substance
Trade name	: Potassium Sorbate
Chemical name	: Potassium (E,E)-hexa-2,4-dienoate
IUPAC name	: potassium hexa-2,4-dienoate
EC-No.	: 246-376-1
CAS-No.	: 24634-61-5
Formula	: C ₆ H ₈ O ₂ .K
Synonyms	: 2,4-Hexadienoic acid, potassium salt, (E,E)- / 2,4-Hexadienoic acid, potassium salt, (2E,4E)-
REACH-No.	: 01-2119950315-41-XXXX

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

1.2.1. Relevant identified uses

Use of the substance/mixture	: Used as processing aids, intermediate, co-formulation in plant protection products, spray applications by professionals, seed and granular applications by professionals, cosmetic products.
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1.2.2. Uses advised against

Restrictions on use	: No information available
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1.3. Details of the supplier of the safety data sheet

Supplier

Nantong Acetic Acid Chemical Co Ltd.
No.968 Jangshan Road, Nantong Economical and Technological
Development Zone, Jiangsu, China
226009
T +86-513-89195550 - F +86-513-85544224
maois@ntacf.com

Only Representative

REACH24H CONSULTING GROUP
Paramount Court, Corrig Road, Sandyford, Dublin 18, Ireland
reach@reach24h.com

Importer

1.4. Emergency telephone number

Emergency number

: 

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 2 H319
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Causes serious eye irritation.

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2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H319 - Causes serious eye irritation.

Precautionary statements (CLP) :

P264 - Wash thoroughly after handling.

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

EUH-statements :

None.

2.3. Other hazards

Other hazards which do not result in classification : No information available.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2,4-Hexadienoic acid, potassium salt, (2E,4E)-	CAS-No.: 24634-61-5 EC-No.: 246-376-1 REACH-no: 01-2119950315-41-XXXX	≥ 99 – < 100	Eye Irrit. 2, H319

Full text of H- and EUH-statements: see section 16

3.2. Mixtures

Not applicable.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general :

If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation :

Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact :

Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact :

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion :

Rinse mouth. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects : Causes serious eye irritation.

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 : Water spray, Carbon dioxide (CO₂), Foam, Dry chemical
Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released, such as carbon monoxide, carbon dioxide.

5.3. Advice for firefighters

Firefighting instructions : Approach from upwind. Eliminate all ignition sources. Move containers from fire area if it can be done without personal risk. Wear self contained breathing apparatus for fire fighting if necessary. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Use personal protective equipment. Avoid dust formation. Avoid breathing dust.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Prevent entry into waterways, sewers, basements or confined areas.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Mechanically recover the product. Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not flush into surface water or sanitary sewer system. Avoid dust formation.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid dust formation. Avoid formation of respirable particles. Do not breathe vapours/dust. Dispose of rinse water in accordance with local and national regulations. Provide appropriate exhaust ventilation at places where dust is formed.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition. Keep locked up and out of reach of children. Keep away from food, drink and animal feeding stuffs. Store in accordance with local regulations.
- Incompatible materials : Oxidizing agents.
- Packaging materials : No additional information available

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	40 mg/kg bw/day
Long-term - systemic effects, inhalation	17.63 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	2 mg/kg bw/day
Long-term - systemic effects, inhalation	52.17 mg/m ³
Long-term - systemic effects, dermal	20 mg/kg bw/day
Long-term - local effects, dermal	0.17 mg/cm ²
Long-term - local effects, inhalation	26.08 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	1 mg/l
PNEC aqua (marine water)	0.1 mg/l
PNEC aqua (intermittent, freshwater)	4.8 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.6 mg/kg sediment dw

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Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)	
PNEC sediment (marine water)	0.036 mg/kg sediment dw
PNEC (Soil)	
PNEC soil	1.67 mg/kg soil dw
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: White.
Appearance	: White powder.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: 250 °C at 101.3 kPa
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive properties	: Non explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available

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Auto-ignition temperature	: 178 °C at 1013 hPa
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable.
Solubility	: Soluble in water. Water: 1.95 g/l at 20 °C
Partition coefficient n-octanol/water (Log Kow)	: -1.72 at 20 °C
Vapour pressure	: 0 Pa at 20 °C
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 1.36 at 20 °C
Relative vapour density at 20 °C	: Not available
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Oxidizing agents

10.6. Hazardous decomposition products

Carbon monoxide, carbon dioxide.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)	
LD50 oral rat	10500 mg/kg bw
LD50 dermal rat	> 2000 mg/kg bw

Skin corrosion/irritation	: Not classified no adverse effect observed (not irritating)
Serious eye damage/irritation	: Causes serious eye irritation. adverse effect observed (irritating)
Respiratory or skin sensitisation	: Not classified no adverse effect observed (not sensitising)
Germ cell mutagenicity	: Not classified no adverse effect observed (negative)
Carcinogenicity	: Not classified

Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)	
NOAEL (route: oral)	1400mg/kg bw/day
Reproductive toxicity	: Not classified

Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)	
NOAEL (route: oral)	1000 mg/kg bw/day rabbit (Himalayan [rabbit])
NOAEL (route: oral)	300 mg/kg bw/day rabbit (Himalayan [rabbit])
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)	
NOAEL (via oral route - systemic effects)	6792 mg/kg bw/day (subchronic); (rat [common rodent species])
Aspiration hazard	: Not classified

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
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11.2.2. Other information

Other information	: No information available
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)	
LC50 96h- Fish [1]	> 500 mg/l Danio rerio (previous name: Brachydanio rerio)
EC50 48h - Crustacea [1]	982 mg/l Daphnia magna
NOEC chronic crustacea	50 mg/l Daphnia magna (21d)

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12.2. Persistence and degradability

Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)

Half-life for hydrolysis	1yr at 25°C
Half-life in air	7.626h
Half-life in water	6.7yr
Biodegradation in water	readily biodegradable

12.3. Bioaccumulative potential

Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)

Partition coefficient n-octanol/water (Log Kow)	-1.72 at 20 °C
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12.4. Mobility in soil

Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.82 at 20°C (SD=0.23, pH 6.0)
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12.5. Results of PBT and vPvB assessment

Potassium (E,E)-hexa-2,4-dienoate (24634-61-5)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

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ADR	IMDG	IATA	ADN	RID
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

No REACH Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Potassium (E,E)-hexa-2,4-dienoate is not on the REACH Annex XIV List

REACH Candidate List (SVHC)

Potassium (E,E)-hexa-2,4-dienoate is not on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Potassium (E,E)-hexa-2,4-dienoate is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Potassium (E,E)-hexa-2,4-dienoate is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Potassium (E,E)-hexa-2,4-dienoate is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

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Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Not applicable.

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant

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Abbreviations and acronyms:	
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Revision	: 1.0
Issue date	: 12/7/2022
Revision date	: 12/7/2022
Data sources	: ECHA reference. Loli.
Training advice	: Normal use of this product shall imply use in accordance with the instructions on the packaging.
Other information	: No information available.

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation.

Safety Data Sheet (SDS), EU

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.