

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**nutrinova**

## Nutrinova® Potassium Sorbate Granules

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	05.10.2023	000000033709	Date of first issue: 05.10.2023

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

#### 1.1 Product identifier

Trade name	:	Nutrinova® Potassium Sorbate Granules
Product code	:	000000000020008709
Index-No.	:	019-003-00-3
EC-No.	:	246-376-1

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

Use of the Sub-stance/Mixture	:	Food/ feedstuff additives, Pharmaceutical
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#### 1.3 Details of the supplier of the safety data sheet

Company	:	Nutrinova Sales Germany GmbH Am Unisyspark 1 65843 Sulzbach (Taunus), Germany
Telephone	:	' +1 972-443-4000
E-mail address of person responsible for the SDS	:	HazCom@nutrinova.com

#### 1.4 Emergency telephone number

CHEMTREC: +1 703 527 3887 (Collect calls accepted)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Eye irritation, Category 2

H319: Causes serious eye irritation.

#### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

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Precautionary statements :

### Prevention:

P264 Wash skin thoroughly after handling.  
P280 Wear eye protection/ face protection.

### Response:

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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Index-No. : 019-003-00-3

EC-No. : 246-376-1

#### Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
potassium (E,E)-hexa-2,4-dienoate	24634-61-5 246-376-1	>= 90 - <= 100

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with plenty of water.  
Get medical attention if irritation develops and persists.

In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

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Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

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

Risks : Causes serious eye irritation.

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

Treatment : Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
Water spray  
Foam  
Dry chemical

Unsuitable extinguishing media : High volume water jet

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

Hazardous combustion products : Carbon oxides

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.  
Avoid contact with the skin and the eyes.  
Keep away from heat and sources of ignition.  
Provide adequate ventilation.

### 6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.  
Do not flush into surface water or sanitary sewer system.

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

Methods for cleaning up : Keep in suitable, closed containers for disposal.  
Use mechanical handling equipment.

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of respirable particles.  
Do not breathe vapours/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Take measures to prevent the build up of electrostatic charge. Keep away from heat and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke.  
Wash hands before breaks and at the end of workday.

Temperature class : T4

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : Keep away from oxidizing agents.

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : None known.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Engineering measures

Local exhaust

#### Personal protective equipment

Eye/face protection : Eye wash bottle with pure water

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Hand protection		Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Material	:	Nitrile rubber
Break through time	:	480 min
Glove thickness	:	1.5 mm
Directive	:	Equipment should conform to EN 374
Protective index	:	Class 6
Material	:	butyl-rubber
Break through time	:	480 min
Glove thickness	:	0.3 mm
Directive	:	Equipment should conform to EN 374
Protective index	:	Class 6
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Skin and body protection	:	Dust impervious protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	:	No personal respiratory protective equipment normally required. Half mask with a particle filter P2 (EN 143)

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	:	solid
Colour	:	white
Odour	:	odourless
pH	:	7 (20 °C) Concentration: 543 g/l
Melting point/range	:	250 °C Method: OECD Test Guideline 102
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Vapour pressure	:	0.0000001 hPa (20 °C) Method: OECD Test Guideline 104  0.0000001 hPa (50 °C) Method: OECD Test Guideline 104
Density	:	1.36 g/cm <sup>3</sup> (20 °C) Method: OECD Test Guideline 109
Solubility(ies)	:	
Water solubility	:	1.95 g/l (20 °C) pH: 4.0

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Method: OECD Test Guideline 105

Solubility in other solvents : 30.5 g/l  
(20 °C)  
Solvent: Methanol  
Method: OECD Test Guideline 105

30.5 g/l  
(20 °C)  
Solvent: xylene  
Method: OECD Test Guideline 105

Partition coefficient: n-octanol/water : log Pow: -1.72 (20 °C)  
pH: 6.5  
Method: OECD Test Guideline 107

Auto-ignition temperature : 178 °C

Oxidizing properties : not applicable based on consideration of the structure

### 9.2 Other information

Surface tension : 72 mN/m, 1,000 mg/l, OECD Test Guideline 115

Particle Size Distribution : D10 = 5 µm  
D90 = 1,140 µm  
Measurement method: OECD Test Guideline 110

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

### 10.4 Conditions to avoid

Conditions to avoid : Do not expose to temperatures above: 210 °C

### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Not classified based on available information.

##### Components:

##### potassium (E,E)-hexa-2,4-dienoate:

Acute oral toxicity	:	LD50 (Rat): > 10,000 mg/kg Test substance: Sorbic acid
Acute inhalation toxicity	:	LC50 (Rat): > 5.15 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 Test substance: Sorbic acid

##### Skin corrosion/irritation

Not classified based on available information.

##### Product:

Remarks : May cause skin irritation in susceptible persons.

##### Components:

##### potassium (E,E)-hexa-2,4-dienoate:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

##### Serious eye damage/eye irritation

Causes serious eye irritation.

##### Product:

Remarks : May cause irreversible eye damage.

##### Components:

##### potassium (E,E)-hexa-2,4-dienoate:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Eye irritation

##### Respiratory or skin sensitisation

##### Skin sensitisation

Not classified based on available information.

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### Respiratory sensitisation

Not classified based on available information.

#### Components:

##### potassium (E,E)-hexa-2,4-dienoate:

Species	:	Guinea pig
Method	:	Similar to EEC 96/54, B.6
Result	:	Does not cause skin sensitisation.
Test substance	:	Sorbic acid

### Germ cell mutagenicity

Not classified based on available information.

#### Components:

##### potassium (E,E)-hexa-2,4-dienoate:

Genotoxicity in vitro	:	Test Type: Ames test Metabolic activation: with and without metabolic activation Method: Mutagenicity (Escherichia coli - reverse mutation assay) Result: negative
		Test Type: Chromosome aberration test in vitro Metabolic activation: without metabolic activation Method: Mutagenicity (in vitro mammalian cytogenetic test) Result: Positive results were obtained in some in vitro tests.
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Method: OECD Test Guideline 474 Result: negative

### Carcinogenicity

Not classified based on available information.

#### Components:

##### potassium (E,E)-hexa-2,4-dienoate:

Species	:	Mouse
Application Route	:	Oral
Exposure time	:	80 weeks
	:	1,400 mg/kg bw/day
Result	:	No evidence of carcinogenicity in animal studies.
Test substance	:	Sorbic acid

### Reproductive toxicity

Not classified based on available information.

#### Components:

##### potassium (E,E)-hexa-2,4-dienoate:

Effects on fertility	:	Test Type: Two-generation study Species: Rat
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Application Route: Oral  
General Toxicity - Parent: NOAEL: 3,000 mg/kg body weight  
General Toxicity F1: NOAEL: 1,000 mg/kg body weight  
Method: OECD Test Guideline 416  
Result: No toxicity to reproduction  
Remarks: Testsubstance: Sorbic acid

Effects on foetal development : Species: Rat  
Application Route: Oral  
Teratogenicity: NOAEL: 340 mg/kg bw/day  
Embryo-foetal toxicity: NOAEL: 340 mg/kg bw/day  
Method: Regulation (EC) No. 440/2008, Annex, B.31  
Result: No developmental or reproductive effects

### STOT - single exposure

Not classified based on available information.

### STOT - repeated exposure

Not classified based on available information.

### Repeated dose toxicity

#### Components:

#### potassium (E,E)-hexa-2,4-dienoate:

Species : Rat  
NOAEL : 750 mg/kg  
Application Route : Oral  
Test substance : Sorbic acid  
Remarks : No consistent differences between treated and control groups, although there were some statistically significant differences in the high dose males and/or females

### Aspiration toxicity

Not classified based on available information.

### Further information

#### Product:

Remarks : No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

#### potassium (E,E)-hexa-2,4-dienoate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 982 mg/l  
Exposure time: 48 h

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Method: OECD Test Guideline 202

Toxicity to microorganisms : EC50 : > 100 mg/l  
Exposure time: 3 h  
Test Type: activated sludge  
Test substance: Sorbic acid  
Method: OECD Test Guideline 209

### 12.2 Persistence and degradability

#### Components:

##### **potassium (E,E)-hexa-2,4-dienoate:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301D  
Test substance: Sorbic acid

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### Components:

##### **potassium (E,E)-hexa-2,4-dienoate:**

Assessment : The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII

### 12.6 Other adverse effects

#### Product:

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information : No data available

#### Components:

##### **potassium (E,E)-hexa-2,4-dienoate:**

Additional ecological information : No data available

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

- |                        |  |
|------------------------|--|
| Product                | : Do not dispose of waste into sewer.<br>Do not contaminate ponds, waterways or ditches with chemical or used container.<br>Send to a licensed waste management company.<br>Dispose of in accordance with local regulations. |
| Contaminated packaging | : Empty remaining contents.<br>Dispose of as unused product.<br>Do not re-use empty containers.  |

### SECTION 14: Transport information

#### 14.1 UN number

- |      |                                     |
|------|-------------------------------------|
| ADR  | : Not regulated as a dangerous good |
| RID  | : Not regulated as a dangerous good |
| IMDG | : Not regulated as a dangerous good |
| IATA | : Not regulated as a dangerous good |

#### 14.2 UN proper shipping name

- |      |                                     |
|------|-------------------------------------|
| ADR  | : Not regulated as a dangerous good |
| RID  | : Not regulated as a dangerous good |
| IMDG | : Not regulated as a dangerous good |
| IATA | : Not regulated as a dangerous good |

#### 14.3 Transport hazard class(es)

- |      |                                     |
|------|-------------------------------------|
| ADR  | : Not regulated as a dangerous good |
| RID  | : Not regulated as a dangerous good |
| IMDG | : Not regulated as a dangerous good |
| IATA | : Not regulated as a dangerous good |

#### 14.4 Packing group

- |                  |                                     |
|------------------|-------------------------------------|
| ADR              | : Not regulated as a dangerous good |
| RID              | : Not regulated as a dangerous good |
| IMDG             | : Not regulated as a dangerous good |
| IATA (Cargo)     | : Not regulated as a dangerous good |
| IATA (Passenger) | : Not regulated as a dangerous good |

#### 14.5 Environmental hazards

Not regulated as a dangerous good

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### 14.6 Special precautions for user

Not applicable

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Not applicable

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation : Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

UK REACH List of substances subject to authorisation (Annex XIV) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Not applicable

### 15.2 Chemical safety assessment

## SECTION 16: Other information

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China;

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IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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