

Product name Nutrinova® Sorbic acid
MSDS number 81004
Revision Number 3.02

Revision Date
Issuing date

NAGH/EN
Sep.01.2015
Oct.15.2015

1. Product and company identification

Trade Name

Nutrinova® Sorbic acid

Celanese Production Germany GmbH & Co. KG

Am Unisys-Park 1
65843 Sulzbach (Taunus)
Germany

Transportation emergency phone numbers:

For Chemical Emergency: Spill Leak Fire Exposure or Accident
Call CHEMTREC Day or Night
DOMESTIC NORTH AMERICA: 800-424-9300
INTERNATIONAL, CALL +1 703-527-3887 (collect calls accepted)

Identified uses

Food additive, Cosmetics, Pharmaceutical

2. Hazard Identification

GHS Classification

Hazards

Skin corrosion/irritation
Serious eye damage/eye irritation
Specific target organ systemic toxicity (single exposure)

Category

Category 2
Category 2B
Category 3 Respiratory

Label elements



Signal Word

Warning

Hazard Statements

Causes skin irritation
Causes eye irritation
May cause respiratory irritation

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Precautionary statements

Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
 Use only outdoors or in a well-ventilated area.
 Wash face, hands and any exposed skin thoroughly after handling.
 Wear protective gloves
 IF ON SKIN: Wash with plenty of water.
 Take off contaminated clothing and wash before reuse
 If skin irritation occurs: Get medical advice/attention
 IF IN EYES: 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.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER or doctor if you feel unwell.
 Store locked up.
 Store in a well-ventilated place. Keep container tightly closed
 Dispose of contents/ container to an approved waste disposal plant.

3. Composition/information on ingredients

Components	CAS-No	Percent %
Hexa-2,4-dienoic acid	110-44-1	100

4. First aid measures

Skin

Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.

Eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Inhalation

Get medical attention immediately if symptoms occur. Move to fresh air in case of accidental inhalation of vapors.

Ingestion

Do NOT induce vomiting.. Call a physician immediately.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO2), Water spray, Foam, Dry chemical

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Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases

Under conditions giving incomplete combustion, hazardous gases produced may consist of
Carbon monoxide
Carbon dioxide (CO₂)
Combustion gases of organic materials must in principle be graded as inhalation poisons
Risk of dust explosion

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Environmental precautions

Dike and collect water used to fight fire. Water used to fight fire runoff can cause environmental damage.

6. Accidental release measures

Personal precautions

Avoid contact with the skin and the eyes. Keep away from heat and sources of ignition. Provide adequate ventilation. Do not breathe dust. Move out of dangerous area.

Environmental precautions

Prevent further leakage or spillage. Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up

Use mechanical handling equipment. Dispose of in accordance with local regulations.

Authority Notification

Within the United States, call the National Response Center (800-424-8802) and appropriate state and local authorities if the quantity released over 24 hours is equal to or greater than the reportable quantity listed below:

7. Handling and storage

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

Protection - fire and explosion:

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Technical measures/Storage conditions

Keep tightly closed in a dry, cool and well-ventilated place.

Material storage

Store locked up. Keep in a dry, cool place. Protect against light.

Incompatible products

No special restrictions on storage with other products

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8. Exposure controls / personal protection

OSHA Exposure Limits

No exposure limits established.

ACGIH Exposure Limits

No exposure limits established.

Mexico National Exposure Limits

No exposure limits established

Exposure controls

Engineering measures

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Protective equipment

A safety shower and eyebath should be readily available.

General advice

Avoid contact with skin and eyes. Do not breathe dust.

9. Physical and chemical properties

Appearance

Form powder
Color white
Odor odorless

Flash point Not applicable

Ignition temperature > 120°C

Melting point/range 134 °C

Boiling point/range 170 °C

Density 1.2 g/ml @ 20°C

pH 3.3 @ 20°C @ 1.6 g/l

Viscosity not applicable

Vapor pressure 1.8 x 10⁻⁴ hPa @ 20°C

Vapor density not determined

Evaporation Rate not determined

Water solubility 1.56 g/l @ 20°C

Solubility in other solvents not determined

Partition coefficient 1.32 @ 20°C (pH: 2.5)

(n-octanol/water)

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10. Stability and reactivity

Chemical stability

Stable under normal conditions of handling, use and transportation

Conditions to avoid

Avoid dust formation

Incompatible Materials

Keep away from:
 oxidizing agents

Hazardous Combustion or Decomposition Products:

Thermal decomposition products may include oxides of carbon.

Possibility of hazardous reactions

None anticipated.

11. Toxicological information

Potential health effects

Routes of exposure Skin, eyes, inhalation.

Immediate effects

Skin	Causes skin irritation.
Eyes	Causes eye irritation.
Inhalation	May cause respiratory tract irritation.

Hexa-2,4-dienoic acid

Acute oral toxicity	LD50: > 10000 mg/kg, rat
Acute dermal toxicity	LD50: > 2000 mg/kg, rat
Skin corrosion/irritation	No skin irritation
Species	rabbit
Method	EEC 84/449, B.4
Skin Sensitization	nonsensitizer
Species	guinea pig
Method	Similar to: EEC 96/54, B.6
Serious eye damage/eye irritation	irritant
Species	rabbit eye
Method	EEC 84/449, B.5
Carcinogenic effects	No evidence of carcinogenicity
Species	rats

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Hexa-2,4-dienoic acid

in vitro Mutagenicity

in vivo Mutagenicity

Repeated exposure

- negative

Mammalian Erythrocyte Micronucleus Test in mice: negative

- Method: OECD 474

No consistent differences between treated and control groups, although there were some statistically significant differences in the high dose males and/or females

12. Ecological Information

Hexa-2,4-dienoic acid

Acute fish toxicity

Species:

Method

Acute daphnia toxicity

Species:

Method

Toxicity to aquatic plants

Species:

Toxicity to bacteria

Method

Biodegradation

Method

LC50: 1250 mg/l (96h)

(Reference substance: Potassium sorbate)

Brachidanio rerio (zebra fish)

OECD 203

EC50: 353 mg/l (48h)

Daphnia magna

OECD 202

EC50: 24.1 mg/l (72h)

Scenedesmus subspicatus

EC50 (3h): > 100 mg/l

OECD 209

Readily biodegradable

OECD 301 B

13. Disposal considerations

Disposal considerations

Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

14. Transport information

US Department of Transportation Not regulated

TDG Not regulated

Mexico Transport Information Not regulated

ICAO/IATA Not restricted

IMDG Not regulated

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15. Regulatory Information

US State Regulations

Chemicals associated with the product which are subject to the state right-to-know regulations are listed along with the applicable state(s):
none

U.S. FEDERAL REGULATIONS

TSCA Inventory:

We certify that all components are either on the TSCA inventory or qualify for an exemption.

Sorbic acid is regulated by the Food, Drug and Cosmetics Act, GRAS status (21CFR 182.3089)

Environmental Regulations:

SARA 311:

Acute health:	Yes
Chronic health:	No
Fire:	No
Sudden release of pressure:	No
Reactive:	No

INTERNATIONAL REGULATIONS

International Inventories

Australia (AICS)
Canada (DSL)
China (IECSC)
Europe (EINECS)
Japan (ENCS)
Japan (ISHL)
Korea (KECI)
New Zealand (NZIoC)
Philippines (PICCS)
United States (TSCA)

16. Other information

Prepared By

Product Stewardship Department
Celanese

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Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on Celanese owned data and public sources deemed valid or acceptable.. The absence of data elements required by ANSI or 1907/2006/EC indicates that no data meeting these requirements is available..

Other Information:

Observe national and local legal requirements

Changes against the previous version are marked by ***

Abbreviation and Acronym:

ADR = Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS = Chemical Abstracts Service (division of the American Chemical Society)

CLP = Classification, Labelling and Packaging

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial Chemical Substances

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

ICAO = International Civil Aviation Organization

IMDG = International Maritime Code for Dangerous Goods

LC50 = Lethal Concentration

LD50 = Lethal Dose

LOAEC = Low Observed Adverse Effect Concentration

LOAEL = Low Observed Adverse Effect Level

LOEL = Low Observed Effect Level

MEST = Mouse Ear Swelling Test

NOAEC = No Observed Adverse Effect Concentration

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RCR = Risk Characterization Ratio

RID = Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

R-Phrases = Risk Phrases

S-Phrases = Safety Phrases

STOT RE = Specific Target Organ Toxicity Repeated Exposure

STOT SE = Specific Target Organ Toxicity Single Exposure

STP = Sewage Treatment Plant

vPvB = very Persistent and very Bioaccumulative