



Safety Data Sheet

DIPOTASSIUM SUCCINATE (solid)

Version NA 2.2
Revision date: July 23 2015
Page 1/8

1. IDENTIFICATION

1.1 Product Identification

Product Name: Dipotassium succinate
Chemical name
CAS No.: 676-47-1
EC No.: 211-628-1

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

-Relevant identified uses: Coolant in wine making
-Uses advised against: Not approved for use as a pharmaceutical or medical product.

1.3 Details of the supplier

Company BIOAMBER Inc.
Manufactured at Route de Pomacle, 51110 BAZANCOURT, FRANCE
Telephone: +33 (0)6 75 72 88 87 or +1 519 344 0065 #110
E-mail Address: Sarnia.CustomerService@bio-amber.com

1.4. Emergency phone number

Phone + 33 (0)1 45 42 59 59 (ORFILA)
For Hazardous Materials [or Dangerous Goods] Incidents
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)
France : + 33 (9) 75 18 14 07
Germany : 0800 – 181 - 7059
Holland : + 31 (8) 58 88 05 96
Belgium : + 32 (2) 80 83 237
Poland : + 48 (2) 23 98 80 29
Japan (Tokyo) : + 81 (3) 45 20 96 37
China : 4001 – 204937
South Korea : 00 – 3087 – 13 – 2549
Taiwan: 00801 – 14 – 8954
Malaysia: 1 – 800 – 815 - 308

2. HAZARD IDENTIFICATION

2.1. OSHA Classification: Classified as non-hazardous according to 29 CFR § 1910.1200

2.2. WHMIS Classification : Not classified according to WHMIS

2.3. GHS Classification



Safety Data Sheet

DIPOTASSIUM SUCCINATE (solid)

Version NA 2.2
Revision date: July 23 2015
Page 2/8

2.4. GHS Label elements, including precautionary statements: Not classified according to GHS

2.5..HMIS Classification

Health hazard: 1
Flammability: 1
Physical hazards: 1

2.6. NFPA Rating

Health hazard: 1
Fire: 1
Reactivity Hazard: 1

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	EC No.	% (weight)
Dipotassium succinate Succinic acid, dipotassium salt	676-47-1	211-628-1	100

4. FIRST AID MEASURES

4.1 First aid description

General instructions	Consult a doctor. Show this safety data sheet to the doctor to help him/her provide the right assistance. Move away from the danger zone.
If inhaled	If inhaled, get the person in question into fresh air. If they are no longer breathing, perform artificial respiration. Consult a doctor.
In the event of skin contact	Take off contaminated clothing and shoes immediately. Rinse with soap and plenty of water. Consult a doctor. Wash contaminated clothing before re-use.
In the event of contact with the eyes	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a physician.
If ingested	Never administer anything by mouth to an unconscious person. Rinse the mouth with water. Consult a doctor.

4.2 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIREFIGHTING MEASURES

Conditions of flammability	Not flammable or combustible.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters	Wear self contained breathing apparatus for firefighting if necessary.
Hazardous combustion products	Hazardous decomposition products formed under fire conditions- Carbon oxides, Sodium oxides

Explosion data - sensitivity to mechanical impact: no data available



Safety Data Sheet

DIPOTASSIUM SUCCINATE (solid)

Version NA 2.2
Revision date: July 23 2015
Page 3/8

Explosion data - sensitivity to static discharge: no data available

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Prevent further leakage or spillage if safe to do so. Avoid producing dust. Avoid breathing vapors, mist or gas. Keep away from incompatible products.

Advice for emergency responders: Evacuate personnel to safe areas. Keep people away from and upwind of spill. Use personal protection equipment. Ensure that ventilation is adequate.

6.2. Environmental protection precautions

Follow all regulations regarding releases into the environment. Do not let the product get into the drains. Follow all regulations regarding releases into sanitary sewer systems. If the product contaminates rivers and lakes or drains, inform respective authorities.

6.3. Methods and materials for containment and cleaning

Gather and dispose of without creating dust. Store in closed containers that are appropriate for disposal. Treat recovered material as described in the section "Disposal considerations".

7. HANDLING AND STORAGE

7.1. Precautions to be taken for safe handling

Avoid contact with skin and eyes. Avoid producing dust or aerosols. Provide appropriate ventilation in locations where dust is generated. The usual preventive measures for protecting against fire. Use only equipment and materials which are compatible with the product. Do not store for long periods at elevated temperatures

7.2. Safe storage conditions, including any incompatibilities

Use tightly sealed and properly labeled containers and store them in a dry and well-ventilated space.

Suggested packing material: blow-lined fiber drums, steel, stainless steel, HD polyethylene

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

OSHA: Not established
ACGIH: Not established

8.2. Personal protection

Appropriate engineering measures

Use mechanical exhaust or laboratory fumehood to avoid exposure. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protection equipment Eye/face protection: Wear eye protection/face protection. Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin/hand protection: Wear gloves when handling. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Suitable material: Butyl rubber, nitrile, natural rubber, latex, viton, Silver Shield/4H. Unsuitable material: Leather. Select bodily protection measures depending on the quantity and concentration of the hazardous substance in the workplace ex. Chemical resistant apron.

Respiratory protection: If the risk assessment shows that gas masks with air purifying filters are appropriate, use a type N95 mask (US) or a type P1 (EN 143) respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use masks that have been tested and approved to the appropriate standards such as NIOSH (US) or CEN (EU).

Hygiene measures: Eye wash bottles or eye wash stations in compliance with applicable standards. Take off contaminated clothing and shoes immediately. Handle in accordance with industrial good hygiene and safety practices. Wash hands before breaks and at the end of the day.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Physical and chemical properties

Physical state	Crystalline solid
Color	White
Odor	Mild vinegar
pH	No Data Available
Melting point/freezing point	Could not be determined (decomposition began at 369.3 °C) (method OECD 102)
Boiling point/boiling range	Could not be determined (decomposition began at 398 °C) (method OECD 103)
Flash point	Closed cup test could not be determined
Evaporation rate	No Data Available
Flammability	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	>369°C
Explosive properties	No Data Available
Vapor pressure	Less than the minimum range of experimental method (OECD 104)
Vapor density	No Data Available
Relative density	1.73 g/ml (OECD 109)
Surface Tension	No Data Available
Solubility	88.1 g/L (OECD 105)
Partition coefficient: (n-octanol/water)	No Data Available
Viscosity	Not applicable for a solid
Oxidizing properties	No Data Available

10. STABILITY AND REACTIVITY

10.1. Chemical stability	Stable under the recommended storage conditions.
10.2. Potential for dangerous reactions	Not available
10.3. Conditions to be avoided	Excessive heat, contact with incompatible materials.
10.4. Incompatible materials	Strong oxidising agents, strong acids
10.5. Dangerous decomposition products	No known hazardous decomposition products at room temperature.

11. TOXICOLOGICAL INFORMATION

11.1. Information about toxicological effects

Routes of Entry	Inhalation, ingestion, and dermal and eye contact.
Acute toxicity	Oral LD ₅₀ Female rat: >2000 mg/kg (method OCSPP No.870.1100 & OECD 425) Inhalation LC ₅₀ : no data available Dermal LD ₅₀ Male/Female Rats: >2020 mg/kg (method OCSPP No.870.1200 & OECD 402)
Skin corrosion/skin irritation	no data available
Severe eye injuries/ eye irritation	no data available
Respiratory or cutaneous sensitisation	no data available
Mutagenicity	Non-mutagenic (Bacterial Reverse Mutation Assay, Ames methodology & OECD 471)
Carcinogenicity	No Data Available. Not listed in National Toxicology Program (NTP) Report on Carcinogens (12 th Edition) nor listed in the International Agency for Research on Cancer (IARC) Monographs (Volumes 1–105), nor listed by OSHA.
Reproductive toxicity	No data available.
Teratogenicity/ Embryotoxicity	No data available.
Specific toxicity for various target organs - single exposure (GHS)	Inhalation. May cause respiratory irritation.
Specific toxicity for various target organs - repeated exposure (GHS)	No data available
Hazards due to aspiration	No data available
Toxicologically Synergistic Materials	No data available

11.2. Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
------------	---



Safety Data Sheet

DIPOTASSIUM SUCCINATE (solid)

Version NA 2.2
Revision date: July 23 2015
Page 6/8

Ingestion	May be harmful if swallowed.
Cutaneous	May be harmful if absorbed through skin. Causes skin irritation.
Eye	Causes eye irritation.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Acute toxicity

Toxicity to fish No Data Available

Toxicity to daphnia and other aquatic invertebrates For *Daphnia magna* the mobility NOEC was 500mg/L for 24 and 48 hr, and the EC₅₀ >1000mg/L (method OPPTS 850.1010 & OECD 202)

Toxicity to algae No Data Available

-Chronic toxicity

Toxicity to fish No Data Available

Toxicity to daphnia and other aquatic invertebrates No Data Available

Toxicity to algae No Data Available

12.2 Persistence and degradability

This substance has been determined to be **Readily Biodegradable** (method OPPTS 835.3110 & OECD 301B)

Abiotic degradation
Air: No data available
Water: No data available
Soil: No data available

12.3 Bioaccumulative potential

No Data Available

12.4. Mobility

Water, Soil/sediments: No Data Available

12.5. PBT and vPvB assessment: No Data Available

12.6. Other adverse effects: No Data Available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods: Dispose of by incineration or according to local and national regulations.

13.2. Contaminated packaging: Where possible recycling is preferred to disposal or incineration. Clean container with water. Dispose of unused product in accordance with local and national regulations.



Safety Data Sheet

DIPOTASSIUM SUCCINATE (solid)

Version NA 2.2
Revision date: July 23 2015
Page 7/8

14. TRANSPORT INFORMATION

- 14.1. International transport regulations: UN Number:** Not regulated; non-hazardous for transport
- 14.2 UN proper shipping name:** Not Applicable
- 14.3 Transport hazard class(es):** No Data Available
- 14.4 Packing group:** No Data Available
- 14.5 Environmental hazards:** No Data Available
- 14.6 Special precautions for user:** No Data Available
- 14.7 Transport in bulk accordance with Annex II of MARPOL 73/78 and the IBC Code:** No Data Available

15. REGULATORY INFORMATION

Canada:

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

USA:

This product has been classified in accordance with the 2012 hazard criteria of the *Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS)* and the SDS contains all the information required by the 29 CFR § 1910.1200.

--Global Chemical Inventories--

- USA** This substance is specified on the U.S. Toxic Substances Control Act (TSCA) Inventory.
- Other TSCA Reg.** None known.
- EU** This substance is specified with REACH per the EC Seventh Amendment Directive 92/33EEC.
- Japan** This substance is specified with the Chemical Substances Control Law (CSCL) of Japan.
- Australia** This substance is specified on the Australian Inventory of Chemical Substances (AICS).
- Canada** This substance is NOT specified on the Domestic Substances List (DSL) but is on the Non- Domestic Substances List (NDSL).
- Korea** This substance is NOT specified on the Korea Existing Chemical Inventory (KECI).

--Other U.S. Federal Regulations--

SARA Ext. Haz. Subst. This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances List.

SARA Section 313 This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substances) of any chemical substance listed under SARA 313

SARA Classifications

Acute Hazard	No
Chronic Hazard	No
Fire Hazard	No
Reactivity Hazard	No

CERCLA Hazardous Substances None known

FDA Approval No Data Available

California Prop. 65 This compound is not known to contain any chemicals on the Proposition 65 list.

16. OTHER INFORMATION

16.1. Information about the revision

SDS 2.0 July 24 2012. Addition of data from toxicological and physic-chemistry studies.

Version 2.2. July 23 2015. Minor changes made: email address, copyright date.

16.2. Meanings of the abbreviations and acronyms used

ACGIH: American conference of Governmental Industrial Hygienists

CAS: Chemical Abstract Service

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

CFR: Code of Federal Regulations

EC: European Commission

EC₅₀: Effective Concentration – 50%

GHS: Globally Harmonized System

HD – High Density

HMIS: Hazardous Material Information System

IBC: International Bulk Chemical

LD₅₀: Lethal Dose – 50%

MARPOL: International Convention for the Prevention of Pollution From Ships

MSDS: Material Safety Data Sheet

NOEC: No Observed Effect Concentration

OCSPP: Office of Chemical Safety and Pollution Prevention

OECD: Organisation for Economic Co-operation and Development

OSHA: Occupational Safety and Health Administration

OPPTS: Office of Prevention, Pesticides, and Toxic Substances

PBT: Persistent Bioaccumulative Toxic Substances

Prop.: Proposition

REACH: Registration, Evaluation, Authorisation and Restriction of Chemical Substances

SARA: Superfund Amendments and Reauthorization Act

SDS: Safety Data Sheet

UN number: United Nations number

vPvB: very Persistent and very Bioaccumulative

WHMIS: Workplace Hazardous Material Information System

DISCLAIMER:

BIOAMBER urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate. However, no warranty or representation of any kind, express or implied, is given, including any warranty of merchantability or fitness for a particular purpose nor shall **BIOAMBER** indemnify any buyer against or be liable for any third party claims with respect to such information or any use thereof. Regulatory requirements are subject to change and may differ between various locations. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product.