



Safety Data Sheet

Cat. # RC-083

Potassium Phosphate (Monobasic)

Size: 500g





Potassium Phosphate (Monobasic)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 11/18/2015

Revision date: 05/11/2017

Version: 7.1

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Substance name	: Potassium Phosphate (Monobasic)
CAS-No.	: 7778-77-0
Product code	: 323P
Formula	: KH ₂ PO ₄
Synonyms	: E340(I) / monobasic potassium phosphate / monopotassium dihydrogen phosphate / monopotassium orthophosphate / monopotassium phosphate / phosphate monobasic / phosphate monobasic, potassium / phosphoric acid, monopotassium salt / potassium acid phosphate / potassium dihydrogen phosphate / potassium dihydrogenorthophosphate / potassium hydrogenphosphate / potassium orthophosphate, di-H / potassium orthophosphate, di-hydrogen / potassium phosphate, monobasic / primary-potassiumphosphate / prim-potassium phosphate / productcode Z7343 / Soerensen's buffer substances (potassium phosphate) / Sorensen's potassium phosphate / Sørensen's potassium phosphate
BIG No	: 14583

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Food industry: additive Laboratory chemical Chemical raw material Pharmaceutical product: auxiliary substance
------------------------------	--

1.3. Supplier

Geno Technology, Inc./ G-Biosciences
9800 Page Avenue
Saint Louis, 63132-1429 - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number	: Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)
------------------	--

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type	: Mono-constituent
----------------	--------------------

Potassium Phosphate (Monobasic)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
Potassium Phosphate (Monobasic) (Main constituent)	E340(I) / monobasic potassium phosphate / monopotassium dihydrogen phosphate / monopotassium orthophosphate / monopotassium phosphate / phosphate monobasic / phosphate monobasic, potassium / phosphoric acid, monopotassium salt / potassium acid phosphate / potassium dihydrogen phosphate / potassium dihydrogenorthophosphate / potassium hydrogenphosphate / potassium orthophosphate, di-H / potassium orthophosphate, dihydrogen / potassium phosphate, monobasic / primary-potassiumphosphate / prim-potassium phosphate / productcode Z7343 / Soerensen's buffer substances (potassium phosphate) / Sorensen's potassium phosphate / Sørensen's potassium phosphate	(CAS-No.) 7778-77-0	100	Not classified

Full text of hazard classes and H-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	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms	: Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Practically non-toxic through skin (LD50 skin 2000/5000 mg/kg). Slightly harmful by inhalation. Slightly irritant to respiratory organs. Slightly irritant to eyes.
Symptoms/effects after inhalation	: AFTER INHALATION OF DUST/MIST: Slight irritation.
Symptoms/effects after skin contact	: Slight irritation.
Symptoms/effects after eye contact	: Slight irritation.
Symptoms/effects after ingestion	: No specific information available. SIMILAR PRODUCTS CAUSE FOLLOWING SYMPTOMS: AFTER INGESTION OF HIGH QUANTITIES: Feeling of weakness. Vomiting. Nausea. Abdominal pain. Diarrhoea. Disturbances of heart rate. Sensorial disturbances.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Specific hazards arising from the chemical

Fire hazard	: DIRECT FIRE HAZARD: Non combustible. INDIRECT FIRE HAZARD: Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: DIRECT EXPLOSION HAZARD: No direct explosion hazard.

Potassium Phosphate (Monobasic)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
- Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray.
- Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.
- Emergency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.
- Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

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.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. On heating: dilute combustible/toxic gases/vapours.
- Methods for cleaning up : Stop dust cloud by humidifying. Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
- 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Keep container tightly closed.
- 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 : Store in a well-ventilated place. Keep cool.
- Storage temperature : 20 °C
- Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.
- Information on mixed storage : KEEP SUBSTANCE AWAY FROM: (strong) acids. (strong) bases. oxidizing agents. water/moisture.
- Storage area : Store in a dry area. Store at room temperature. Keep container in a well-ventilated place. Meet the legal requirements.
- Special rules on packaging : SPECIAL REQUIREMENTS: closing. watertight. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- Packaging materials : SUITABLE MATERIAL: paper. cardboard. polyethylene. textile. synthetic material. MATERIAL TO AVOID: steel. aluminium.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potassium Phosphate (Monobasic) (7778-77-0)

No additional information available

Potassium Phosphate (Monobasic)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

GIVE GOOD RESISTANCE: synthetic material. rubber. nitrile rubber

Hand protection:

Gloves

Eye protection:

Safety glasses. In case of dust production: protective goggles

Skin and body protection:

Protective clothing

Respiratory protection:

Dust production: dust mask with filter type P1

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Crystalline solid. Crystalline powder. Grains.
Color : Colourless or white
Odor : Odourless
Odor threshold : No data available
pH : 4.5 (1 %)
Melting point : 253 °C
Freezing point : Not applicable
Boiling point : Not applicable
Flash point : Not applicable
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Non flammable.
Vapor pressure : No data available
Relative vapor density at 20 °C : Not applicable
Relative density : 2.34 (20 °C)
Specific gravity / density : 2338 kg/m³
Molecular mass : 136.09 g/mol
Solubility : Soluble in water.
Water: 22 g/100ml
Log Pow : No data available
Auto-ignition temperature : Not applicable
Decomposition temperature : 400 °C
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosion limits : Not applicable
Explosive properties : No data available
Oxidizing properties : No data available

9.2. Other information

VOC content : 0 %
Other properties : Hygroscopic. Acid reaction.

Potassium Phosphate (Monobasic)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts violently with (strong) acids/bases.

10.2. Chemical stability

Hygroscopic.

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

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Potassium Phosphate (Monobasic) (7778-77-0)	
LD50 oral rat	7100 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 4640 mg/kg (Rabbit, Dermal)
ATE US (oral)	7100 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: 4.5 (1 %)

Serious eye damage/irritation : Not classified
pH: 4.5 (1 %)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Potential Adverse human health effects and symptoms : Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Practically non-toxic through skin (LD50 skin 2000/5000 mg/kg). Slightly harmful by inhalation. Slightly irritant to respiratory organs. Slightly irritant to eyes.

Symptoms/effects after inhalation : AFTER INHALATION OF DUST/MIST: Slight irritation.

Symptoms/effects after skin contact : Slight irritation.

Symptoms/effects after eye contact : Slight irritation.

Symptoms/effects after ingestion : No specific information available. SIMILAR PRODUCTS CAUSE FOLLOWING SYMPTOMS:
AFTER INGESTION OF HIGH QUANTITIES: Feeling of weakness. Vomiting. Nausea. Abdominal pain. Diarrhoea. Disturbances of heart rate. Sensorial disturbances.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Potassium Phosphate (Monobasic)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Ecology - water : Slightly harmful to fishes. Mild water pollutant (surface water). May cause eutrophication. pH shift.

Potassium Phosphate (Monobasic) (7778-77-0)

LC50 fish 1	> 900 mg/l (48 h, Leuciscus idus)
-------------	-----------------------------------

12.2. Persistence and degradability

Potassium Phosphate (Monobasic) (7778-77-0)

Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Potassium Phosphate (Monobasic) (7778-77-0)

Bioaccumulative potential	No bioaccumulation data available.
---------------------------	------------------------------------

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Waste treatment methods.

Product/Packaging disposal recommendations : Do not discharge into surface water. Remove waste in accordance with local and/or national regulations. Remove to an authorized dump. Precipitate/make insoluble.

Additional information : Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Air transport

SECTION 15: Regulatory information

15.1. US Federal regulations

Potassium Phosphate (Monobasic) (7778-77-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Potassium Phosphate (Monobasic) (7778-77-0)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Potassium Phosphate (Monobasic)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

National regulations

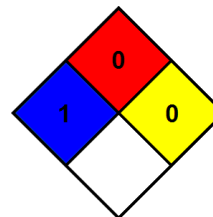
No additional information available

15.3. US State regulations

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date	: 05/11/2017
NFPA health hazard	: 1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA fire hazard	: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.



SDS US (GHS HazCom 2012)

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.