

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : Rappaport-Vassiliadis Broth
Type of product : Food Safety -- [Food Safety]
Product code : 9237

1.2. Other means of identification

Synonyms : RV Medium
Part Number(s) : 9237|9715|9716|9729|22015|400000054|400000059|400000633|700002799|700002800|700002804

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals, Scientific research and development
Recommended use : Scientific research and development, Laboratory chemicals

1.4. Supplier's details

Neogen Corporation
620 Leshar Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - <https://www.neogen.com/>

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Reproductive toxicity, Category 2 H361 Suspected of damaging fertility or the unborn child.
Full text of H statements : see section 16

2.2. GHS label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Warning

Hazard statements (GHS CA) : H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS CA) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.

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P308+P313 - IF exposed or concerned: Get medical advice or attention.

P405 - Store locked up.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
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potassium dihydrogenorthophosphate	Phosphoric acid monopotassium salt ; Potassium dihydrogen orthophosphate 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 dihydrogenorthop hosphate / potassium hydrogenphospha te / potassium orthophosphate, di-H / potassium orthophosphate, di-hydrogen / potassium phosphate, monobasic / primary- potassiumphosph ate / prim- potassium phosphate / Soerensen's buffer substances (potassium phosphate) / Sorensen's potassium phosphate / Sörensen's potassium phosphate	CAS-No.: 7778-77-0	≥ 5 – < 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
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Malachite green oxalate	Malachite green oxalate ammonium, [4-[p-(dimethylamino)-alpha-phenylbenzylidene]-2,5-cyclohexadien-1-ylidene]dimethyl-, oxalate (1:1), oxalate (1:1) / ammonium, [4-[para-(dimethylamino)-alpha-phenylbenzylidene]-2,5-cyclohexadien-1-ylidene]dimethyl-, oxalate (1:1), oxalate (1:1) / bis[[4-[4-(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium] oxalate, dioxalate / ethanedioic acid, ion(1-), N-[4-[[4-(dimethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methylmethanaminium, ethanedioate (2:1) / malachite green oxalate (2:2:1) / malachite green oxalate salt (2:2:1) / malachite green oxalate, certified (2:2:1) / methanaminium, N-[4-[[4-(dimethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, ethanedioate, ethanedioate (2:2:1)	CAS-No.: 2437-29-8	≥ 0.1 – < 0.5	Acute Tox. 3 (Oral), H301 Eye Dam. 1, H318 Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
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Full text of hazard classes and H-statements : see section 16

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.
First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
Personal protection for first-aid responders.	: First aid workers will be equipped with suitable personal protective equipment.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact	: None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Symptoms/effects after eye contact	: None under normal conditions. Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
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

General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
Environmental precautions	: Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up	: Mechanically recover the product. Notify authorities if product enters sewers or public waters.

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Other information : Dispose of materials or solid residues at an authorized site.
For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment.
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

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Store locked up.
Storage temperature : 2 – 30 °C
Packaging materials : Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

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, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



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SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Color	: Gray light blue
Odor	: mild
Odor threshold	: No data available
pH	: 4.7 – 5.1
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Explosion limits	: Not applicable
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	: No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

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

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Unknown acute toxicity (GHS CA)	69.88% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 69.88% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 69.88% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
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potassium dihydrogenorthophosphate (7778-77-0)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal rabbit	> 4640 mg/kg Source: National Library of Medicine
LC50 Inhalation - Rat	> 0.83 mg/l air (EPA OPP 81-3: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust), 14 day(s))

Malachite green oxalate (2437-29-8)	
LD50 oral rat	275 mg/kg (Rat, Oral)
LD50 dermal rat	> 2000 mg/kg
ATE CA (oral)	275 mg/kg body weight

Skin corrosion/irritation : Not classified.
pH: 4.7 – 5.1

potassium dihydrogenorthophosphate (7778-77-0)	
pH	4.5 (1 %)

Malachite green oxalate (2437-29-8)	
pH	2.4 (1 %)

Serious eye damage/irritation : Not classified
pH: 4.7 – 5.1

potassium dihydrogenorthophosphate (7778-77-0)	
pH	4.5 (1 %)

Malachite green oxalate (2437-29-8)	
pH	2.4 (1 %)

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : Not classified

potassium dihydrogenorthophosphate (7778-77-0)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

potassium dihydrogenorthophosphate (7778-77-0)	
NOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Aspiration hazard : Not classified

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Viscosity, kinematic	Not applicable

potassium dihydrogenorthophosphate (7778-77-0)	
Viscosity, kinematic	Not applicable (solid)

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Malachite green oxalate (2437-29-8)	
Viscosity, kinematic	Not applicable
Symptoms/effects after inhalation	: None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact	: None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Symptoms/effects after eye contact	: None under normal conditions. Dust from this product may cause eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

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.
Hazardous to the aquatic environment, short-term (acute)	: Not classified.
Hazardous to the aquatic environment, long-term (chronic)	: Not classified.

potassium dihydrogenorthophosphate (7778-77-0)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (EU Method C.3, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [1]	12700000 mg/l Source: Ecological Structure Activity Relationships

Malachite green oxalate (2437-29-8)	
LC50 - Fish [1]	0.12 mg/l (96 h, Pimephales promelas)
EC50 - Crustacea [1]	0.29 mg/l (48 h, Daphnia magna)
ErC50 algae	1.08 mg/l

12.2. Persistence and degradability

Rappaport-Vassiliadis Broth	
Persistence and degradability	Not rapidly degradable

potassium dihydrogenorthophosphate (7778-77-0)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Malachite green oxalate (2437-29-8)	
Persistence and degradability	Not readily biodegradable in water.

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12.3. Bioaccumulative potential

potassium dihydrogenorthophosphate (7778-77-0)

Bioaccumulative potential	Not bioaccumulative.
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Malachite green oxalate (2437-29-8)

Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
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BCF - Fish [1]	0.15 mg/l (24 h, Salmo gairdneri, Residues)
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Partition coefficient n-octanol/water (Log Pow)	1.15 (Estimated value)
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12.4. Mobility in soil

potassium dihydrogenorthophosphate (7778-77-0)

Surface tension	No data available in the literature
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Ecology - soil	No (test)data on mobility of the substance available.
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12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.

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

Sewage disposal recommendations : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.

Additional information : Do not re-use empty containers.

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
Not regulated for transport			
14.2. UN Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group, if applicable			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

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according to the Hazardous Products Regulation (WHMIS 2015)

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

potassium dihydrogenorthophosphate (7778-77-0)

Listed on the Canadian DSL (Domestic Substances List)

Malachite green oxalate (2437-29-8)

Listed on the Canadian DSL (Domestic Substances List)

Canada DSL & NDSL Flags

Significant New Activity (SNAc) provisions of the Act apply

potassium dihydrogenorthophosphate (7778-77-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Malachite green oxalate (2437-29-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

SECTION 16 Other Information

Issue date : 06-19-2025

Revision date : 08-04-2025

Supersedes : 06-19-2025

Full text of hazard classes and H-statements:

H301	Toxic if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child

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Full text of hazard classes and H-statements:	
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), Canada

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.