

PHT Nutrient Buffer 0-8-0

Safety Data Sheet

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

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : PHT Nutrient Buffer 0-8-0
Product code : M77037

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

No additional information available

1.3. Details of the supplier of the safety data sheet

JR Simplot Company
P.O. Box 70013
Boise, ID 83707
T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Met. Corr. 1 H290 - May be corrosive to metals
Skin Corr. 1A H314 - Causes severe skin burns and eye damage
Full text of H-statements: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS-US) : P234 - Keep only in original container
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P264 - Wash ... thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a poison center/doctor/...
P321 - Specific treatment (see ... on this label)
P363 - Wash contaminated clothing before reuse
P390 - Absorb spillage to prevent material damage
P405 - Store locked up
P406 - Store in corrosive resistant/... container with a resistant inner liner
P501 - Dispose of contents/container to ...in accordance with local/regional/national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Water	(CAS No) 7732-18-5		Not classified
phosphoric acid	(CAS No) 7664-38-2		Met. Corr. 1, H290 Skin Corr. 1B, H314
sodium dodecylbenzenesulfonate	(CAS No) 25155-30-0		Acute Tox. 4 (Oral), H302
dodecylbenzenesulphonic acid	(CAS No) 27176-87-0		Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314
sodium sulfate, anhydrous	(CAS No) 7757-82-6		Not classified

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

- Symptoms/injuries : Causes severe skin burns and eye damage.
- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after eye contact : Causes serious eye damage.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

- Reactivity : Thermal decomposition generates : Corrosive vapours.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Absorb spillage to prevent material damage.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact during pregnancy/while nursing. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.

Hygiene measures : Wash ... thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Packaging materials : Store in corrosive resistant/... container with a resistant inner liner.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

phosphoric acid (7664-38-2)		
ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
ACGIH	ACGIH STEL (mg/m ³)	3 mg/m ³

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or face shield.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Dark straw colored liquid

Odour : characteristic

Odour threshold : No data available

pH : 0.72

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : Non-flammable

Relative evaporation rate (butylacetate=1) : No data available

Flammability (solid, gas) : No data available

Explosive limits : No data available

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Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Solubility	: miscible. Water: Solubility in water of component(s) of the mixture : • phosphoric acid: Complete • sodium dodecylbenzenesulfonate: 25 g/100ml • sodium sulfate, anhydrous: 44.45 g/100ml (20 °C)
Log Pow	: No data available
Auto-ignition temperature	: Non-flammable
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Reacts with alkalis and metals producing heat and hydrogen gas.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases. metals. May be corrosive to metals.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

phosphoric acid (7664-38-2)	
LD50 oral rat	4400 mg/kg (Rat)
ATE US (oral)	4400.000 mg/kg bodyweight
sodium dodecylbenzenesulfonate (25155-30-0)	
LD50 oral rat	438 mg/kg (Rat)
ATE US (oral)	438.000 mg/kg bodyweight
sodium sulfate, anhydrous (7757-82-6)	
LD50 oral rat	> 10000 mg/kg (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Literature study; > 2000 mg/kg bodyweight; Rat; Experimental value)
dodecylbenzenesulphonic acid (27176-87-0)	
LD50 oral rat	650 mg/kg (Rat; Literature study)
ATE US (oral)	650.000 mg/kg bodyweight

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 0.72
Serious eye damage/irritation	: Not classified pH: 0.72

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Respiratory or skin sensitisation	: 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
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

phosphoric acid (7664-38-2)	
LC50 fish 1	138 mg/l (96 h; Pisces; Pure substance)
LC50 other aquatic organisms 1	240 mg/l (96 h; Protozoa; Pure substance)
LC50 fish 2	100 - 1000 mg/l (Pisces; Pure substance)
LC50 other aquatic organisms 2	100 - 1000 mg/l (Pure substance)
TLM fish 1	138 ppm (24 h; Gambusia affinis; Pure substance)
Threshold limit other aquatic organisms 1	240 mg/l (96 h; Protozoa; Pure substance)
Threshold limit other aquatic organisms 2	100 - 1000, Pure substance
sodium dodecylbenzenesulfonate (25155-30-0)	
LC50 fish 1	0.99 mg/l (96 h; Pisces)
EC50 Daphnia 1	2.19 mg/l (96 h; Daphnia magna)
LC50 fish 2	6.9 mg/l (96 h; Rita rita)
Threshold limit algae 1	0.9 mg/l (96 h; Algae)
sodium sulfate, anhydrous (7757-82-6)	
LC50 fish 1	13500 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	2564 mg/l (48 h; Daphnia magna)
LC50 fish 2	3040 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	880 mg/l (96 h; Amphipoda)
TLM fish 1	16500 mg/l (96 h; Gambusia affinis)
TLM fish 2	13500 mg/l (96 h; Lepomis macrochirus)
Threshold limit algae 1	4 mg/l (360 h; Chlorella sp.)
dodecylbenzenesulphonic acid (27176-87-0)	
LC50 fish 1	3.2 - 5.6 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	1 - 10 mg/l (48 h; Daphnia magna; GLP)
LC50 fish 2	3.5 - 10 mg/l (96 h; Brachydanio rerio)
EC50 Daphnia 2	5.88 mg/l (48 h; Daphnia magna)
TLM fish 1	4.2 - 5.6, 96 h; Lepomis macrochirus; Soft water
TLM fish 2	4.2 - 5.6, 96 h; Pimephales promelas; Soft water
Threshold limit algae 1	29 mg/l (96 h; Selenastrum capricornutum)
Threshold limit algae 2	127.9 mg/l (72 h; Scenedesmus subspicatus; GLP)

12.2. Persistence and degradability

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Persistence and degradability	Not established.

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phosphoric acid (7664-38-2)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
Water (7732-18-5)	
Persistence and degradability	Not established.
sodium dodecylbenzenesulfonate (25155-30-0)	
Persistence and degradability	Readily biodegradable in water.
sodium sulfate, anhydrous (7757-82-6)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. No (test)data on mobility of the substance available.
ThOD	Not applicable (inorganic)
dodecylbenzenesulphonic acid (27176-87-0)	
Persistence and degradability	Readily biodegradable in water. Low potential for adsorption in soil.
Chemical oxygen demand (COD)	2.41 g O ₂ /g substance

12.3. Bioaccumulative potential

PHT Nutrient Buffer 0-8-0	
Bioaccumulative potential	Not established.
phosphoric acid (7664-38-2)	
Log Pow	-0.77 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
Water (7732-18-5)	
Bioaccumulative potential	Not established.
sodium dodecylbenzenesulfonate (25155-30-0)	
BCF fish 1	286 (Lepomis macrochirus)
BCF fish 2	130 (Leuciscus idus)
Log Pow	0.45 - 1.96
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
sodium sulfate, anhydrous (7757-82-6)	
BCF other aquatic organisms 1	0.5
Log Pow	-4.38 (Calculated; US EPA)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
dodecylbenzenesulphonic acid (27176-87-0)	
BCF fish 1	108 - 551 (Pisces)
BCF fish 2	130 (72 h; Leuciscus idus)
BCF other aquatic organisms 1	140 (120 h; Bacteria)
BCF other aquatic organisms 2	60 (24 h; Chlorophyta)
Log Pow	1.96
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

sodium sulfate, anhydrous (7757-82-6)	
Surface tension	0.071 N/m (20 °C; 1.005 g/l)
dodecylbenzenesulphonic acid (27176-87-0)	
Surface tension	35 N/m (25 °C; 800 mg/l)

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

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Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to ...

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1805 Phosphoric acid solution, 8, III

UN-No.(DOT) : UN1805

Proper Shipping Name (DOT) : Phosphoric acid solution

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive



Packing group (DOT) : III - Minor Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Special Provisions (49 CFR 172.102) : A7 - Steel packagings must be corrosion-resistant or have protection against corrosion.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 154

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Other information : No supplementary information available.

TDG

No additional information available

Transport by sea

UN-No. (IMDG) : 1805

Proper Shipping Name (IMDG) : PHOSPHORIC ACID SOLUTION

Class (IMDG) : 8 - Corrosive substances

Packing group (IMDG) : III - substances presenting low danger

Air transport

UN-No. (IATA) : 1805

Proper Shipping Name (IATA) : Phosphoric acid, solution

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Class (IATA) : 8 - Corrosives
Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

phosphoric acid (7664-38-2)

Not subject to reporting requirements of the United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
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sodium dodecylbenzenesulfonate (25155-30-0)

Not subject to reporting requirements of the United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
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dodecylbenzenesulphonic acid (27176-87-0)

Not subject to reporting requirements of the United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
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15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

phosphoric acid (7664-38-2)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

sodium dodecylbenzenesulfonate (25155-30-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

dodecylbenzenesulphonic acid (27176-87-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Other information : None.

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Full text of H-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage

SDS US (GHS HazCom 2012)

Disclaimer: This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION HEREIN PROVIDED. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.