

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
Product name : Phosphoric Acid, 7% v/v
Product code : MM05450, TT28309

1.2. Recommended use and restrictions on use

Use of the substance/mixture : For laboratory and manufacturing use only.

1.3. Supplier

LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or +1-703-741-5970

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation H314 Causes severe skin burns and eye damage
Category 1C
Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS-US) : P260 - Do not breathe mist.
P264 - Wash exposed skin 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): Remove/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 or doctor/physician.
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS US)

Not applicable

Phosphoric Acid, 7% v/v

Safety Data Sheet

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

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Water	(CAS-No.) 7732-18-5	90.33	Not classified
Phosphoric Acid, 85% w/w	(CAS-No.) 7664-38-2	9.67	Skin Corr. 1B, H314 Eye Dam. 1, H318

Full text of hazard classes and 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 : Allow victim to breathe fresh air. Allow the victim to rest. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
- 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 (acute and delayed)

- Symptoms/effects : Causes severe skin burns and eye damage.
- Symptoms/effects after inhalation : Irritation of the nasal mucous membranes.
- Symptoms/effects after skin contact : Burns.
- Symptoms/effects after eye contact : Causes serious eye damage.

4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) 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. Specific hazards arising from the chemical

- Reactivity : Thermal decomposition generates : Corrosive vapors.

5.3. Special protective equipment and precautions for fire-fighters

- 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

- Protective equipment : Safety glasses. Protective clothing. Gloves.
- 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.

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.

Phosphoric Acid, 7% v/v

Safety Data Sheet

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

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

- 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 vapor. Do not breathe mist.
- Hygiene measures : Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

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 : metals, incompatible materials. Keep container closed when not in use.
- Incompatible products : Strong bases. metals.
- Incompatible materials : Sources of ignition. Direct sunlight.
- Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: (strong) bases.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric Acid, 85% w/w (7664-38-2)		
NIOSH	NIOSH REL (TWA) (mg/m ³)	1 mg/m ³
NIOSH	NIOSH REL (STEL) (mg/m ³)	3 mg/m ³
Water (7732-18-5)		
Not applicable		

8.2. Appropriate engineering controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Safety glasses. Gloves. Protective clothing.



Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or face shield

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Mist formation: aerosol mask

Other information:

Do not eat, drink or smoke during use.

Phosphoric Acid, 7% v/v

Safety Data Sheet

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Colorless
Odor	: None.
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
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	: No data available
Relative density	: No data available
Specific gravity / density	: 1.05 g/ml
Solubility	: Soluble in water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 1.23 cSt
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

Miscibility	: <= g/100ml
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SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapors.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts violently with (some) bases: release of heat.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Phosphorus oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure	: Skin and eye contact
Acute toxicity	: Not classified

Water (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg
ATE US (oral)	90000 mg/kg body weight

Phosphoric Acid, 7% v/v

Safety Data Sheet

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

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
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
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects after inhalation	: Irritation of the nasal mucous membranes.
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Phosphoric Acid, 85% w/w (7664-38-2)

LC50 fish 1	138 mg/l (Pisces)
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12.2. Persistence and degradability

Phosphoric Acid, 7% v/v

Persistence and degradability	Not established.
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Phosphoric Acid, 85% w/w (7664-38-2)

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

Water (7732-18-5)

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

Phosphoric Acid, 7% v/v

Bioaccumulative potential	Not established.
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Phosphoric Acid, 85% w/w (7664-38-2)

Bioaccumulative potential	Does not contain bioaccumulative component(s).
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Water (7732-18-5)

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

Phosphoric Acid, 85% w/w (7664-38-2)

Ecology - soil	No (test)data on mobility of the components available.
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12.5. Other adverse effects

Other information	: Avoid release to the environment.
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Phosphoric Acid, 7% v/v

Safety Data Sheet

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

SECTION 13: Disposal considerations

13.1. Disposal methods

- Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
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
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 8 - Corrosive



- 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 packaging 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.

Transportation of Dangerous Goods

- Transport document description : UN1805 PHOSPHORIC ACID, SOLUTION, 8, III
UN-No. (TDG) : UN1805
Proper Shipping Name (Transportation of Dangerous Goods) : PHOSPHORIC ACID, SOLUTION
TDG Primary Hazard Classes : 8 - Class 8 - Corrosives
Packing group : III - Minor Danger
Explosive Limit and Limited Quantity Index : 5 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 5 L

Transport by sea

- Transport document description (IMDG) : UN 1805 PHOSPHORIC ACID SOLUTION, 8, III
UN-No. (IMDG) : 1805
Proper Shipping Name (IMDG) : PHOSPHORIC ACID SOLUTION
Class (IMDG) : 8 - Corrosive substances

Phosphoric Acid, 7% v/v

Safety Data Sheet

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

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

Air transport

Transport document description (IATA) : UN 1805 Phosphoric acid, solution, 8, III
UN-No. (IATA) : 1805
Proper Shipping Name (IATA) : Phosphoric acid, solution
Class (IATA) : 8 - Corrosives
Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Phosphoric Acid, 7% v/v

SARA Section 311/312 Hazard Classes	Health hazard - Skin corrosion or Irritation Health hazard - Serious eye damage or eye irritation
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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Phosphoric Acid, 85% w/w (7664-38-2)

RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
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15.2. International regulations

CANADA

Phosphoric Acid, 85% w/w (7664-38-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

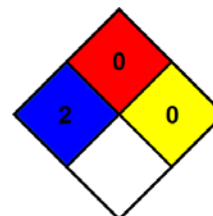
SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
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.



Phosphoric Acid, 7% v/v

Safety Data Sheet

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

Hazard Rating

- Health : 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability : 0 Minimal Hazard - Materials that will not burn
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
- Personal protection : H
- H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

SDS US LabChem

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