

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : Phosphoric Acid 0-54-0
 Product code : M77825

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Industrial

1.3. Supplier

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

Corrosive to metals Category 1 H290 May be corrosive to metals
 Acute toxicity (dermal) Category 4 H312 Harmful in contact with skin
 Skin corrosion/irritation Category 1A H314 Causes severe skin burns and 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) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H290 - May be corrosive to metals
 H312 - Harmful in contact with skin
 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/vapors/spray.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
 P302+P352 - If on skin: Wash with plenty of water
 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 or doctor
 P312 - Call a poison center or doctor if you feel unwell
 P321 - Specific treatment (see supplemental first aid instruction on this label)
 P362+P364 - Take off contaminated clothing and wash it before reuse.
 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

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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

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|-----------------------------|--------------------------|---------|---|
| phosphoric acid (7664-38-2) | (CAS-No.) 7664-38-2 | 60 – 90 | Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 |
| Proprietary* | (CAS-No.) Not Applicable | 10 – 40 | Not classified |

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 : 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 : Immediately call a poison center or doctor/physician. Specific measures (see supplemental first aid instruction on this label). Wash with plenty of soap and water. Wash contaminated clothing before reuse. Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- 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)

- Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful in contact with skin.
- Symptoms/effects : Causes severe skin burns and eye damage.
- Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

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

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

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.

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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. 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 vapor. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact during pregnancy/while nursing.
Hygiene measures : Wash hands, forearms and face 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 closed when not in use.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.
Storage temperature : ≥ 25 (5 – 42) °C
Packaging materials : Store in corrosive resistant container with a resistant inner liner.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|---|---------------------|
| Phosphoric Acid 0-54-0 | |
| No additional information available | |
| Proprietary* (Not Applicable) | |
| No additional information available | |
| phosphoric acid (7664-38-2) (7664-38-2) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH TWA (mg/m ³) | 1 mg/m ³ |
| ACGIH STEL (mg/m ³) | 3 mg/m ³ |

8.2. Appropriate engineering controls

8.3. Individual protection measures/Personal protective equipment

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:

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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 |
| Color | : Mixture contains one or more component(s) which have the following colour(s): Colorless Colourless |
| Odor | : Acrid |
| Odor threshold | : No data available |
| pH | : ≤ 1 |
| Melting point | : No data available |
| Freezing point | : ≤ 0 °C |
| Boiling point | : ≥ 100 °C |
| Flash point | : None |
| 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 | : ≥ 1.58 g/ml |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

VOC content : ≤ 10 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapors.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

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 vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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| | |
|-----------------------------|---------------------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Harmful in contact with skin. |
| Acute toxicity (inhalation) | : Not classified |

| | |
|-----------------|----------------------------|
| ATE US (dermal) | 1466.667 mg/kg body weight |
|-----------------|----------------------------|

| phosphoric acid (7664-38-2) (7664-38-2) | |
|---|---|
| LD50 oral rat | 1530 mg/kg (Rat) |
| LD50 dermal rat | ≥ 1260 mg/kg body weight |
| Skin corrosion/irritation | : Causes severe skin burns. pH: ≤ 1 |
| Serious eye damage/irritation | : Assumed to cause serious eye damage pH: ≤ 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 | : Based on available data, the classification criteria are not met. Harmful in contact with skin. |
| Symptoms/effects | : Causes severe skin burns and eye damage. |
| Symptoms/effects after skin contact | : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin. |

SECTION 12: Ecological information

12.1. Toxicity

| phosphoric acid (7664-38-2) (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 |

12.2. Persistence and degradability

| Phosphoric Acid 0-54-0 | |
|---|--|
| Persistence and degradability | Not established. |
| Proprietary* (Not Applicable) | |
| Persistence and degradability | Not established. |
| phosphoric acid (7664-38-2) (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 |

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12.3. Bioaccumulative potential

| Phosphoric Acid 0-54-0 | |
|---|---|
| Bioaccumulative potential | Not established. |
| Proprietary* (Not Applicable) | |
| Bioaccumulative potential | Not established. |
| phosphoric acid (7664-38-2) (7664-38-2) | |
| Partition coefficient n-octanol/water (Log Pow) | -0.77 (Estimated value) |
| Bioaccumulative potential | Bioaccumulation: not applicable. Not established. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid unintentional release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials : Avoid unintentional 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
Class (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

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| | |
|-----------------------------|---|
| 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 | : Consumer Commodity ORM-D for 128oz or less. |

Transportation of Dangerous Goods

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 |
| Packing group (IMDG) | : III - substances presenting low danger |
| Limited quantities (IMDG) | : 5 L |

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 0-54-0

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

| | | |
|--|------------------------|----------|
| Proprietary* | CAS-No. Not Applicable | 10 – 40% |
| phosphoric acid (7664-38-2) (7664-38-2) | | |
| CERCLA RQ | 5000 lb | |

15.2. International regulations

CANADA

Proprietary* (Not Applicable)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

phosphoric acid (7664-38-2) (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

| Component | State or local regulations |
|--|---|
| phosphoric acid (7664-38-2)(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 |

SECTION 16: Other information

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Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H-phrases:

| | |
|------|---|
| H290 | May be corrosive to metals |
| H302 | Harmful if swallowed |
| H312 | Harmful in contact with skin |
| H314 | Causes severe skin burns and eye damage |

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent 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.

NFPA specific hazard : None

Hazard Rating

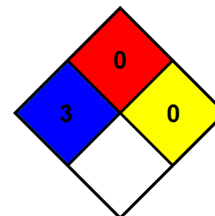
Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

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 : C

C - Safety glasses, Gloves, Synthetic apron



SDS US (GHS HazCom 2012)

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