



Section 1: Identification of the Material and Supplier

Product Name: Boumatic Acid 3x

Other Names: Phosphoric acid solution.

Proper shipping name (ADG Code): Phosphoric acid 67 %

Recommended use: As a non-foaming acid concentrate.
Use as directed on the product label.

Supplier: DASCO Pty. Ltd.,
ABN: 14 004 581 113
24 - 26 Helen Street, HEIDELBERG HEIGHTS VIC 3081
Tel: (03) 9459 7004 (business hours)
Fax: (03) 9459 9200

Emergency Phone Numbers:
Transport/Fire Emergency: 000 (Emergency services)
Medical Emergency: 131126 (Poisons Information Centre)

Section 2: Hazards Identification

Classified as hazardous according to criteria of Worksafe Australia.

Dangerous goods.

Risk Phrases: R: 34 Causes burns.

Safety Phrases: S: 1/2 Keep locked up and out of the reach of children.
S: 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S: 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 3: Composition/Information on Ingredients

Ingredients:

Phosphoric acid	[7664-38-2]	> 60 %
Other ingredients deemed not to be hazardous		< 10 %
Water	[7732-18-5]	to 100 %

Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131126) or a doctor.

- Swallowed: If swallowed, do NOT induce vomiting.
- Skin: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.
- Eyes: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Center or a doctor, or for at least 15 minutes.
- Inhaled: Remove from exposure, rest and keep warm. Seek medical advice.

First Aid facilities:

- Mandatory: Eye wash. Hand wash basin.
- Recommended: Emergency shower if handling industrial quantities.

Advice to Doctor:

Product is a concentrated solution of phosphoric acid. Corrosive to living tissues. Contact Poisons Information Centre.

Aggravated medical conditions:

No data found.

Section 5: Fire Fighting Measures

- HAZCHEM Code: 2 R
- Evacuate: No.
- Extinguishant: Water fog or fine water spray.
- Risk of violent reaction or explosion: No.
- Products of combustion: Oxides of phosphorus.
- Protective Equipment: Full protective clothing including breathing apparatus and protective gloves.

Section 6: Accidental Release Measures

Emergency Procedures:

Contain.

For large spills:

Contain spillage using sand or earth. Transfer both liquids and solids to suitable container. Treat residues as for small spillages.

For small spills:

Spills may be neutralised by the liberal application of soda ash. If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb on inert absorbent, transfer to suitable container and arrange removal by disposals company.

Section 7: Handling and Storage

Precautions for safe handling:

Avoid contact with skin and eyes.
Keep away from alkalis, metals.

Conditions for safe storage:

Store in a cool, well ventilated place, out of reach of children. Large quantities should be stored in a bonded dangerous goods store. Store in original container. Keep container tightly closed and out of direct sunlight. Keep away from alkalis, metals, oxidising agents. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

Incompatibles:

Oxidising agents, strong mineral acids, alkalis (including carbonates and bicarbonates), mercaptans and organic sulphides, nitromethane, azo compounds, epoxides, sodium tetrahydroborate.

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

ES-TWA:	Phosphoric acid	1 mg/m ³
ES-STEL:	Phosphoric acid	3 mg/m ³
ES-PEAK:	None assigned.	
Notations:	None.	

Biological Limit Values: No data found.

Engineering Controls:

May be corrosive to constructions of common metals.
Ensure adequate ventilation (same as outdoors) when using.
If handling industrial quantities, or if vapour/aerosol risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible, and at least below the TLV.

Personal Protective Equipment:

Avoid contact with skin and eyes. Do not breathe vapours or aerosols. Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:-

Normal Use:

Eye/face protection
Gloves, rubber or plastic.

Industrial Quantities:

Face shield or safety glasses
Gloves, rubber or plastic
Plastic apron, sleeves and boots
Impervious overalls.

Section 9: Physical and Chemical Properties

Appearance: Clear, red-coloured liquid.
Odour: Almost odourless.
pH: < 1.5 Very acidic.
Vapour Pressure: No data.
Vapour Density: No data.
Boiling Point: From 100 °C
Melting Point: No data.
Volatiles: About 33 % [water]
Volatile Organic Compounds (VOC): Nil.
Evaporation Rate: No data.
Solubilities: Miscible with water, generating heat.
Specific Gravity/Density: 1.26 g/mL @ 20 °C
Flash Point: None.
Flammable Limits: None.
Dust Explosion: Not applicable.
Auto-ignition Temperature: No data.

Other Information:

Very acid. Corrosive to many common metals; may generate hydrogen, a flammable gas. Will react vigorously or violently with alkalis. Contact with carbonates or bicarbonates will generate carbon dioxide, a simple asphyxiant. May react violently with azo compounds, epoxides, nitromethane, mercaptans and organic sulphides, sodium tetrahydroborate. Slippery when spilled.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible materials.

Incompatible Materials: Alkalis, metals, oxidising agents, mercaptans, organic sulphides, azo compounds, epoxides, nitromethane, sodium tetrahydroborate.

Hazardous Decomposition Products: Oxides of phosphorus.

Hazardous Reactions: Mixtures with nitromethane may be explosive. May react violently with sodium tetrahydroborate. Contact with many common metals may generate hydrogen. May polymerise violently under the influence of azo compounds, epoxides or other readily polymerisable compounds. Will react vigorously or violently with alkalis.

Section 11: Toxicological Information

Health Effects:

No data available for the mixture. Information presented relates to individual ingredients.

Acute:	Swallowed:	Corrosive. May be fatal. May cause pain in the throat and stomach, abdominal cramps, a burning sensation, nausea, vomiting and intense thirst. May cause burns to stomach and intestines. May cause haemorrhaging of the digestive tract. May even cause corrosion and permanent tissue destruction of the oesophagus and digestive tract. Large quantities may cause shock, clammy skin, weak and rapid pulse, shallow breathing, weakness, confusion, reduced urine output, loss of consciousness and death.
	Skin:	Severe skin irritant. May cause redness, pain, blisters, burns. In mild cases, may cause skin rash. In severe cases may cause cyanosis or pale skin.
	Eyes:	Severe eye irritant. May cause redness, pain, blurred vision and severe deep burns. May cause chemical conjunctivitis and corneal damage.
	Inhaled:	Will be irritating to nose and throat at 1 - 5 mg/m ³ , and at 4 - 11 mg/m ³ will cause coughing. Vapour and aerosols are corrosive to lung tissues. May cause a burning sensation in the chest, cough, laboured breathing, shortness of breath, sore throat and loss of consciousness. Over-exposure may lead to pulmonary oedema (fluid in the lungs). Onset of symptoms may be delayed, but can be made worse by physical effort.
Chronic:		Repeated skin exposure may cause burns. Repeated exposure to phosphoric acid may affect the liver, blood and bone marrow.
LD50:	Phosphoric acid	1,530 mg/kg oral, rat. 2,740 mg/kg skin, rabbit.
LC50:	Phosphoric acid	> 850 mg/m ³ /1 hour, rat.

Section 12: Ecological Information

Ecotoxicity:	Harmful to aquatic organisms.
Persistence and degradability:	Converted to inorganic phosphate in the environment.
Mobility:	Readily transported by water.
Environmental Fate:	No data.
Bioaccumulative potential:	No data.
Other adverse environmental effects:	In the environment, phosphate will contribute to the development of algal blooms in natural waters.

Section 13: Disposal Considerations

The generator of any wastes from this product is responsible for its proper classification, transport and disposal.

Consult appropriate local and State regulations.

Disposal methods and containers:

Avoid disposal to drains, natural waters or the environment.
Do not use metal containers.

Special precautions for landfill or incineration:

Not suitable for incineration.
May not be suitable for some landfill sites.

Section 14: Transport Information

UN Number:	UN 1805
UN Proper shipping name:	Phosphoric acid 67 %
Class and subsidiary risk:	8 Corrosive.
Packaging group:	III
Special precautions for user:	Do not store or transport with dangerous goods of classes 1, 4.3, 5.1, 5.2, 6 (if cyanides), 7, foodstuffs and foodstuff empties. Contain spillages.
HAZCHEM Code:	2 R
Material for export:	Regulated. Refer to IMO\IMDG and IATA\ICAO .

Section 15: Regulatory Information

Poisons (SUSDP): Schedule 6 Phosphoric acid > 35 %

Dangerous Goods: Yes. UN 1805 8/III 2 R.

Carcinogen:	Australia	IARC	NTP	RTECS
	No.	No.	No.	No.

Agricultural and Veterinary Chemicals Act:

This product is registered with the Australian Pesticides and Veterinary Medicines Authority (**APVMA**).

Australian Inventory of Chemical Substances (AICS): Listed.

Other National/International Regulations: No data found.

Section 16: Other information

Date of MSDS update: September 2009
Complete review and re-write of all sections.

Abbreviations:

NOHSC - National Occupational Health and Safety Commission.
ACGIH - American Conference of Governmental Industrial Hygienists.
IARC - International Agency for Research on Cancer (France).
NTP - National Toxicology Program (USA).
RTECS - Registry of Toxic Effects of Chemical Substances.

Literature references:

Available Sources of Data:

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [2011(2003)] - NOHSC.
Australian Dangerous Goods Code.
Standard for the Uniform Scheduling of Drugs and Poisons - AHMAC.
Exposure Standards for Atmospheric Contaminants in the Occupational Environment [1003]- NOHSC.
List of Designated Hazardous Substances [10005] - NOHSC.
Merck Index - Merck Inc.
Sax's Dangerous Properties of Industrial Materials - Lewis.
Handbook of Toxic and Hazardous Chemicals and Carcinogens - Sittig.
Handbook of Reactive Chemical Hazards - Bretherick.
Hawley's Condensed Chemical Dictionary - Wiley Interscience.
AUSREG's Chemical Data Package for PCs - AUSREG Consultancy.