



Section 1: Identification of the Material and Supplier

Product Name: Multi Temp

Other Names: Acid dairy detergent sanitiser.

Proper shipping name (ADG Code):

Corrosive liquid, acidic, inorganic, n.o.s.
(phosphoric acid, sulphuric acid)

Recommended use: In dairies, for milkstone removal and control of thermophilic bacteria.
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: 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
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]	10 - 30 %
Sulphuric acid	[7664-93-9]	< 10 %
Quaternary ammonium compound	[61789-71-7]	< 10 %
Other ingredients		< 10 %
Water	[7732-18-5]	to 100 %

Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131 126) or a doctor.

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 Centre or doctor, or for at least 15 minutes.

Inhaled: Remove from exposure.

First Aid facilities:

Mandatory: Eye wash. Hand wash basin.

Recommended: Emergency shower if handling industrial quantities.

Advice to Doctor:

Product is an acidic mixture containing phosphoric acid, sulphuric acid and mixed surfactants. Corrosive, causes burns. Risk of serious damage to eyes. If swallowed, may cause burns to stomach and intestines. Contact Poisons Information Centre.

Aggravated medical conditions:

Pre-existing skin disorders, eye problems or impaired respiratory function.

Section 5: Fire Fighting Measures

HAZCHEM Code: 2 X

Extinguishant: Water fog or fine water spray.

Risk of violent reaction or explosion: No.

Products of combustion: Water vapour, oxides of carbon, oxides of phosphorus, oxides of sulphur, oxides of nitrogen, hydrogen chloride.

Protective Equipment: Full protective clothing including breathing apparatus and protective gloves.

Section 6: Accidental Release Measures

Emergency Procedures:

Contain.

Spills may be neutralised by liberally covering with soda ash or crushed lime (if available), and leaving until reaction has ceased.

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:

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. Wear suitable protective clothing. Keep away from alkalis.

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, including carbonates and bicarbonates. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

Incompatibles:

Alkalis, strong oxidising agents.

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

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

Biological Limit Values: No data.

Engineering Controls:

Avoid using active metals, such as aluminium or zinc, as materials of construction.

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 TLVs.

Personal Protective Equipment:

Avoid contact with skin and eyes. Avoid breathing vapour/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.
- Protective overalls.

Industrial Quantities:

- Face shield (full face)
- Gloves or gauntlets, rubber or plastic
- Plastic apron, sleeves and boots
- Impervious overalls.

Section 9: Physical and Chemical Properties

Appearance: Clear, colourless, mobile liquid.
Odour: Almost odourless.
pH: Very acid.
Vapour Pressure: No data.
Vapour Density: No data.
Boiling Point: > 100 °C
Melting Point: No data.
Volatiles: 51 % [as water]
Volatile Organic Compounds (VOC): < 1 %
Evaporation Rate: No data.
Solubilities: Miscible with water.
Specific Gravity/Density: 1.2 g/mL
Flash Point: None.
Flammable Limits: None.
Dust Explosion: Not applicable.
Auto-ignition Temperature: No data.

Other Information:

Strong acid. Will react vigorously or violently with alkalis. Contact with carbonates or bicarbonates will generate carbon dioxide, a simple asphyxiant. Contact with active metals, such as aluminium or zinc, may generate hydrogen, a flammable gas. May react with strong oxidising agents. Slippery when spilled.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible materials.

Incompatible Materials: Alkalis (including carbonates and bicarbonates), oxidising agents, cyanides, active metals such as aluminium and zinc.

Hazardous Decomposition Products: Oxides of phosphorus, oxides of sulphur, oxides of nitrogen, oxides of carbon.

Hazardous Reactions: Will react vigorously or violently with alkalis. Contact with carbonates or bicarbonates will generate carbon dioxide, a simple asphyxiant. Contact with active metals may generate hydrogen, a flammable gas.

Section 11: Toxicological Information

Health Effects:

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

Acute:	Swallowed:	Corrosive. May cause burns to the lips, mouth, throat, stomach and intestines. May cause pain in the throat and stomach, abdominal cramps, a burning sensation, nausea, vomiting and intense thirst. May cause haemorrhaging of the gastrointestinal system. Other symptoms may include shock, clammy skin, weak and rapid pulse, shallow breathing, weakness, confusion, loss of consciousness, reduced urine output. May be fatal.
	Skin:	Corrosive, may cause redness, pain, blister and burns. May cause cyanosis or pale skin. Mild contact may cause skin rash.
	Eyes:	Corrosive, causes burns. May cause redness, pain, blurred vision, severe deep burns, serious and permanent damage to the eyes. Slight exposure may cause chemical conjunctivitis and corneal damage.
	Inhaled:	Corrosive to lung tissues. Inhalation of vapour or aerosol may cause a burning sensation in the chest, cough, laboured breathing, shortness of breath, sore throat, loss of consciousness. Exposure may cause pulmonary oedema (fluid buildup in the lungs). Onset of symptoms may be delayed.
Chronic:		Repeated skin contact may cause irritation or burns. Chronic exposure to phosphoric acid may affect the blood, bone marrow and the liver.
LD50:	Phosphoric acid	1,530 mg/kg oral, rat. 2,740 mg/kg skin, rabbit.
	Quaternary ammonium compound	240 mg/kg oral, rat. 1,560 mg/kg skin, rabbit.
	Sulphuric acid	2,140 mg/kg oral, rat.
LC50:	Phosphoric acid	> 850 mg/m ³ /1 hour, rat.
	Sulphuric acid	510 mg/m ³ /2 hours, rat.
LDLo:	Phosphoric acid	220 mg/kg unreported route, man.
	Sulphuric acid	135 mg/kg unreported route, man.

Section 12: Ecological Information

Ecotoxicity:	Harmful to aquatic organisms.
Persistence and degradability:	No data.
Mobility:	Readily transported by water.
Environmental Fate:	No data.
Bioaccumulative potential:	No data.
Other adverse environmental effects:	Contains phosphate (as phosphoric acid); may contribute to algal blooms.

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 natural waters or the environment. Contains phosphate; may contribute to algal blooms.

Avoid disposal of large quantities to sewer. Contains sulphate (as sulphuric acid); discharge of sulphate (especially acidic sulphate) to concrete sewer may be regulated by local authorities.

Special precautions for landfill or incineration:

Unsuitable for incineration.

Neutralise before disposal to landfill.

Section 14: Transport Information

UN Number:	UN 3264
UN Proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s. (phosphoric acid, sulphuric acid)
Class and subsidiary risk:	8 Corrosive.
Packaging group:	II
Special precautions for user:	Keep away from alkalis. Do not transport with classes 1, 4.3, 5.1, 5.2, 7, cyanides, foodstuff and foodstuff empties.
HAZCHEM Code:	2 X
Material for export:	Regulated. Refer to IMO/IMDG and IATA/ICAO .

Section 15: Regulatory Information

Poisons (SUSDP): Schedule 6;
Phosphoric acid > 350 g/L, and
Sulphuric acid > 0.5 %

Dangerous Goods: Yes. UN 3264 8/II 2 X.

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.

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.
MAK - Maximum workplace concentration - Germany,
(*maximale Arbeitsplatzkonzentration*)
IARC - International Agency for Research on Cancer (France).
NTP - National Toxicology Program (USA).
RTECS - Registry of Toxic Effects of Chemical Substances.
HSE - Health and Safety Executive (UK).

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.