SAFETY DATA SHEET
Crooked Lane Harvest Vitamin C Powder

SECTION 1 IDENTIFICATION

Product Name: **Vitamin C Powder**
Company Product Code: **VAL9400, VAL9409**
Other Names **Ascorbic Acid; L-Ascorbic Acid; Vitamin C**
Uses **Food additive, additive Pharmaceuticals**
Chemical Family **No Data Available**
Chemical Formula **C6H8O6**
Chemical Name **Ascorbic Acid**
Product Description **No Data Available**

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location
Zoo Pets Pty Ltd	4/3 Terrace Road, North Richmond NSW 2754 PO Box 506, Cherrybrook NSW 2125

Telephone Number: +61 (0)2 4571 4211 (Mon-Fri 9:00am – 5:00pm)

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 13112
Chemcall	Australia	1800-127406 +64-4-9179888

Telephone Number Poisons Information Centre 13 11 26

SECTION 2 HAZARDS IDENTIFICATION

Poison Schedule (Aust) Not scheduled

Globally Harmonised System

Hazard Classification NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Signal Word None

National Transport Commision (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

SECTION 3 COMPOSITION ON INGREDIENTS

INGREDIENTS

Chemical Name	CAS Number	Proportion (%)
Ascorbic Acid	50-81-7	100%

SECTION 4 FIRST AID MEASURES

Description of necessary measures according to routes of exposure.

Swallowed: Rinse mouth with water. Give water to drink (200-300ml). Do not give victim anything to drink if he is unconscious. If symptoms develop, seek medical attention.

Eye Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Consult a physician for specific advice.

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Skin	Remove contaminated clothes; wash affected skin with water and soap; do not use any solvents.
Inhaled:	Remove victim from exposure to fresh air. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.
Medical Conditions Aggravated by Exposure	No information available on medical conditions aggravated by exposure to this product.

SECTION 5 FIRE FIGHTING MEASURES

General Measures	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
Flammability Conditions	Product is a non-flammable solid. Comments: Combustibility index for deposited dust: 2 (23'C 2 (100'C). Dust explosion class: St (H) 1 (Milled sample, Median value of tested sample 0.017mm, Loss on drying 0.3%; The value was determined in the modified Hartmann tube.) Minimum ignition temperature of a dust/air mix:>=350'C (Median value tested sample 0.388 mm) determined in the BAM over. Powder volume resistivity: ca.7E+10 Ohmm (Product sample, Median value of the tested sample 0.388mm, Loss on drying 0.2%) The material can accumulate static charge and can therefore cause electrical ignition. Minimum ignition energy: 10-30mJ (Milled sample, Median value of the tested sample 0.0017mm, Loss on drying .3% EN 13821) The minimum ignition energy (MIE) of a dust/air mix depends on the particle size the water content and the temperature of the dust. The finer and the dryer the dust the lower the MIE. General remark: The indicated dust explsion characteristics are only valid for this product and are sensitive to the sample's parameters.
Extinguishing Media	In case of fire, appropriate extinguishing media include Water spray jet, dry powder, foam, carbon dioxide.
Fire and Explosion Hazard	Avoid dust formulation; Severe dust explosion hazard.
Hazardous Products of Combustion	Non-combustible solid. Dust may form explosive mixture with air. Incompatible with Strong oxidising substances, Strong bases and sources of ignition. In case of fire, toxic gases may be formed. Hazardous decomposition products include carbon monoxide and carbon dioxide (Carbon oxides).
Special Fire Fighting Instructions	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
Flash Point	No data Available
Lower Explosion Limit	No data available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

SECTION 6 ACCIDENTAL RELEASE MEASURES

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General Response

Procedure Avoid accidents, clean up immediately. Slippery when wet. Personnel involved in the clean up should wear full protective clothing as listed in section 8. Eliminate all sources of ignition. Increase ventilation.
Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Use clean, non-sparking tools and equipment.

Clean Up Procedures Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner (using a special dust particle filter). Transfer to a suitable, labelled container and dispose of promptly.

Environmental Precautions

Measures Do not let product enter drains

Evacuation Criteria Evacuate all unnecessary personnel.

Personal Precautionary Measures Avoid dust formation. Avoid breathing vapours, mist or gas.

SECTION 7 HANDLING AND STORAGE

Handling: Ensure an eye bath and safety shower are available and ready for use.
Observe good personal hygiene practices and recommended procedures.
Wash thoroughly after handling. Processing in closed systems, if possible superposed by inert gas (e.g nitrogen); local exhaust ventilation necessary ; take precautionary measures against electrostatic charging; avoid dust formation; high dust explosion hazard.

Storage Store in a non-metallic and sealed container. Store in a cool, dry well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks.

Container Store in original packaging as approved by manufacturer.
Suitable materials: Stainless steel, coated steel (protective lacquer), glass, polyethylene, polypropylene, enamel and not easy to corrosion material by acid and alkali.
Unsuitable materials: Aluminium, copper, zinc, iron and so on.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

General No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified is 10mg/m3 (for inspirable dust) and 3mg/m3 (for respirable dust).

Exposure Limits..... No Data Available

Biological Limits No information available on biological limit values for this product

Engineering Measures A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispertion of it into the general work area.

Personal Protection Equipment RESPIRATOR: Wear an effective dust mask where dust/vapours are generated and engineering controls are inadequate (AS1715/1716).

Work Hygienic Practices General industrial hygiene practice.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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Physical State	Solid
Appearance	Crystalline Powder
Odour	Almost odourless, with sharp acidic, pleasant taste.
Colour	White or almost white
pH	2.1-2.6 (5% aqueous solution)
Vapour Pressure	<0.001hPa torr (@20ºC)
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	190 (with decomposition) ºC
Freezing Point	No Data Available
Solubility	176g/l- completely soluble 20ºC
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperation	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	176.13g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	-2.15
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Point	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No Data Available
Potential for Dust Explosion	Severe dust explosion hazard. Dust may form explosive mixture with air.
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute Unusual Hazards to Fire Intensity	No Data Available
Reactions That Release Gases	
Release of Invisible Flammable Vapours and Gases	No Data Available

SECTION 10 STABILITY AND REACTIVITY

General Information	On prolonged storage, a yellow discoloration may occur; through slow decomposition, which does not noticeably diminish biological activity; In aqueous solutions ascorbic acid is very suspect
Chemical Stability:	Product is stable under normal conditions of use, storage and temperature.
Possibility of Hazardous Reactions:	
Conditions to Avoid:	Avoid humidity, light, warming, incompatible materials, and exposure to air.

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Incompatible Materials: Oxidizing agents, atmospheric oxygen, bases, metals, metal salts

Hazardous Decomposition Products: In case of fire, toxic gases may be formed. Hazardous decomposition products may include carbon monoxide and carbon dioxide.

Hazardous Polymerisation: Hazardous polymerisation will not occur.

No specific reactivity hazards associated with this product

Dust may form explosive mixture in air.

SECTION 11 TOXICOLOGICAL INFORMATION

General Information LD50 11'900 mg/kg (oral, rat)

LD50 8'000 mg/kg (oral, mouse)

Chronic Toxicity: In predisposed individuals 4-12 g/d may cause urinary calculus.

Acute Toxicity: No Data Available

Skin Corrosion/Irritation: No Data Available

Serious Eye Damage/Irritation: Dust contact with the eyes can lead to mechanical irritation**.**

Respiratory or Skin Sensitisation: Oral uptake of up to 9g per day does not produce any serious toxic effects, however, even lesser quantities may cause diarrhoea; RDArecommended daily allowance): 60mg

May cause respiratory tract irritation**.**

May cause irritations; particularly in conjunction with humidity (perspiration).

Germ Cell Mutagenicity: No Data Available

Carcinogenicity: No Data Available

Reproductive Toxicity: No Data Available

Specific Target Organ Toxicity – Single Exposure: No Data Available

Specific Target Organ Toxicity – Repeated Exposure: No Data Available

Possible Routes of Exposure: No Data Available

Early Onset Symptoms Related to Exposure: No Data Available

Delayed Health Effects From Exposure: No Data Available

Exposure Levels and Health Effects: No Data Available

Interactive Effects: No Data Available

Other Information: No Data Available

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity: Barely toxic for fish (rainbow trout) LC50 (96 h) 1020 mg/l; the inhibitory concentration relates to re-attachment to substrate (Dreissena polymorpha) MIC (48 h) > 50mg / l (nominal concentration).

Persistence and Degradability: The product is easily biodegradable

Bioaccumulative Potential: The product is not bioaccumulating. (n-octanol/water): -2.15

Mobility in Soil: No information available on mobility for this product

Soluble in water

Environmental Fate Do NOT allow product to reach waterways, drains and sewers.

Environmental Impact No data available

Other Adverse Effects:

SECTION 13 DISPOSAL CONSIDERATIONS

General Infomation Dispose of in accordance with all local, state and federal regulations.

All empty packaging should be disposed of in accordance with Local, State and Federal Regulations or recycled/reconditioned at an approved facility.

Disposal Containers and Methods:

Physical/Chemical Properties that May affect Disposal Options:

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Effects of Sewerage Disposal:
Special Precautions for Incineration/Landfill: Contact a specialist disposal company or the local waste regulator for advice

SECTION 14 TRANSPORT INFORMATION

Land Transport (Australia)	**ADG Code**
	National Transport Commission (Austalia)
	Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
Sea Transport	**IMDG Code**
Air Transport	**IATA DGR**
UN Number:	
Shipping Name:	**Ascorbic Acid**
Transport Hazard Class:	No Data Available
Packing Group:	No Data Available
Environmental Hazards	No Data Available
for Transport Purposes:	No Data Available
Precaution for User:	No Data Available
Additional Information:	No Data Available
HAZCHEM or Code:	No Data Available
Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (AG Code)

SECTION 15 REGULATORY INFORMATION

Subject to the Following International Agreements: No Data Available
APVMA Number:

SECTION 16 OTHER INFORMATION

Date of Preparation / Revision:	**Revision #3**
	28 May 2014

Changes Made During Revision:

This SDS is prepared in accordance to the “Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice December 2011”.

This SDS contains only safety related information. For other data see product literature.

Acronyms/Abbreviations:

<	less than
>	greater than
AICS	Australian Inventory of Chemical Substances
ADG	Australian Dangerous Goods Code
CAS	Chemical Abstracts Service (Registry Number)
CO2	Carbon Dioxide
COD	Chemical Oxygen Demand
ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substance and New Organism
IATA	International Air Transport Association
IDLH	Immediately Dangerous to Life and Health
IMDG	International Maritime Dangerous Goods Code
LC50	LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD50	LD stands for "Lethal Dose". LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals

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Misc	miscible
AICS	**Australian Inventory of Chemical Substances**
Atm	**Atmosphere**
CAS	**Chemical Abstracts Service (Regisry Number)**
CO2	**Carbon Dioxide**
COD	**Chemical Oxygen Demand**
EPA (New Zealand)	**Environmental Protection Authority of New Zealand**
HSNO	**Hazardous Substance and New Organism**
IDLH	**Immediately Dangerous to Life and Health**
N/A	Not Applicable
NIOSH	National Institute for Occupational Safety and Health
NOHSC	National Occupational Health and Safety Commission
OECD	Organization for Economic Co-operation and Development
Oz	**Ounce**
Pa	**Pascal**
ppb	**Parts per Billion**
ppm	**Parts per Million**
ppm/2h	**Parts per million per 2 hours**
ppm/6h	**Parts per million per 6 hours**
psi	**Pounds per Square Inch**
PEL	Permissible Exposure Limit
R	**Rankine**
RCP	Reciprocal Calculation Procedure
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
tne	**Tonne**
TWA	Time Weighted Average
UN	United Nations (number)
cm2	square centimetres
deg C ('C)	degrees Celsius
deg F ('F)	degrees Fahrenheit
g	gram
g/cm3	grams per cubic centimetre
g/l	grams per litre
immiscible	liquids are insoluble in each other
inHg	Inch of Mercury
inH2O	Inch of Water
K	Kelvin
kg	kilogram
kg/m3	kilograms per cubic metre
lb	**Pound**
LC50	LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD50	LD stands for Lethal Dose. LD50 is the amount of material, given all at once, which causes the death of 50% (one half) of a group of test animals.
ltr	Litre
m3	cubic metre
mPa.s	milli Pascal per second
mbar	millibar
mg	milligram
mg/24H	milligrams per 24 hours
mg/kg	milligrams per kilogram
mg/m3	milligrams per cubic metre
miscible	liquids form one homogeneous liquid phase regardless of the amount of either component present
mm	millimetre
mmH2O	Millimeters of water
mPa.s	Millipascals per Second

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ppb	parts per billion
ppm	parts per million
ppm/2h	parts per million per 2 hours
ppm/6h	parts per millionper 6 hours
tne	tonne
ug/24H	micrograms per 24 hours
UN	**United Nations**
wt	weight

This SDS summarises Zoo Pets Pty Ltd best knowledge of the health and safety hazard information of the selected substance and how to safely handle the selected substance in the workplace however Zoo Pets Pty Ltd expressly disclaims that the SDS is a representation or guarantee of the chemical specifications for the substance. Each user should read the SDS and consider the information in the context of how the selected substance will be handled and used in the workplace including its use in conjunction with other substances.

END OF SDS