

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Chemical nature: Boric acid.
Trade Name: **Aquapro Aqua Silk**
Product Use: Spa maintenance product.
Creation Date: **March, 2013**
This version issued: **March, 2020** and is valid for 5 years from this date.
Poisons Information Centre: Phone 13 1126 from anywhere in Australia

SECTION 2 - HAZARDS IDENTIFICATION

Statement of Hazardous Nature

This product is classified as: Hazardous according to the criteria of SWA.

Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

SUSMP Classification: S5

ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.

UN Number: None allocated



GHS Signal word: DANGER

HAZARD STATEMENT:

H360: May damage fertility or the unborn child.

PREVENTION

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P281: Use personal protective equipment as required.

RESPONSE

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P308+P313: If exposed or concerned: Get medical advice.

P332+P313: If skin irritation occurs: Get medical advice.

P337+P313: If eye irritation persists: Get medical advice.

P370+P378: Not combustible. Use extinguishing media suited to burning materials.

STORAGE

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

DISPOSAL

P501: Dispose of contents and containers to landfill.

EMERGENCY OVERVIEW

Physical Description & colour: White crystalline solid.

Odour: No odour.

Major Health Hazards: may impair fertility, may cause harm to unborn children.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Conc, %	TWA (mg/m ³)	STEL (mg/m ³)
Boric acid	10043-35-3	pure *	not set	not set

* Commercially pure. May include small quantities of materials due to manufacturing or reaction processes.

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

SECTION 4 - FIRST AID MEASURES

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Gently brush away excess particles. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

Eye Contact: Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed, while holding the eyelid(s) open. Obtain medical advice immediately if irritation occurs. Take special care if exposed person is wearing contact lenses.

Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

SECTION 5 - FIRE FIGHTING MEASURES

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

No fire decomposition products are expected from this product at temperatures normally achieved in a fire.

Extinguishing Media: Not combustible. Use extinguishing media suited to burning materials.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Autoignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include Nitrile, butyl rubber. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask. Use a P1 mask, designed for use against mechanically generated particles e.g. silica & asbestos. Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

SECTION 7 - HANDLING AND STORAGE

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501** set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits**TWA (mg/m³)****STEL (mg/m³)**

Exposure limits have not been established by SWA for this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.

Eye Protection: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

Protective Material Types: We suggest that protective clothing be made from the following materials: nitrile, butyl rubber.

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask. Otherwise, not normally necessary.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

Physical Description & colour:	White crystalline solid.
Odour:	No odour.
Boiling Point:	Not available.
Freezing/Melting Point:	171°C
Volatiles:	Nil at 100°C.
Vapour Pressure:	Nil at normal ambient temperatures.
Vapour Density:	Not applicable.
Specific Gravity:	1.51
Water Solubility:	48.8g/L at 20°C, 380g/L at 100°C
pH:	5.1 (10% in water)
Volatility:	Nil at normal ambient temperatures.
Odour Threshold:	No data.
Evaporation Rate:	Not applicable.
Coeff Oil/water distribution:	No data
Viscosity:	Not applicable.
Autoignition temp:	Not applicable - does not burn.
Refractive index:	Not applicable.
Optical rotation:	Not applicable.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Keep containers tightly closed. Containers should be kept dry.

Incompatibilities: strong bases.

Fire Decomposition: No significant quantities of decomposition products are expected at temperatures normally achieved in a fire.

Polymerisation: This product will not undergo polymerisation reactions.

SECTION 11 - TOXICOLOGICAL INFORMATION

Local Effects:

Target Organs: There is no data at hand indicating any particular target organs.

CLASSIFICATION OF HAZARDOUS INGREDIENTS

Ingredient**Risk Phrases**

Boric Acid

Conc>=5.5%: T; R60; R61

LD₅₀ Oral (Rat) >2000mg/kg

Note: Sodium tetraborate and its hydrates are chemically and toxicologically related to boric acid. The majority of the borate chronic toxicity studies were conducted using boric acid. Sodium tetraborate is converted to boric acid in biological systems. The boric acid data discussed in this section can be converted to sodium tetraborate pentahydrate equivalent by dividing by a factor of 0.849. Other factors apply to different levels of hydration.

A human study of occupationally exposed borate workers showed no adverse reproductive effects. Animal studies indicate that boric acid reduces or inhibits sperm production, causes testicular atrophy and when given to pregnant animals during gestation, may cause developmental changes. These feed studies were conducted under chronic exposure conditions leading to doses many times in excess of those that could occur through inhalation of dust in the occupational setting.

Dietary levels of boric acid of 8,700ppm (0.87%) in chronic feeding studies in rats and dogs produced testicular changes (Weir, Fisher, 1972). In chronic feeding studies in mice on diets containing 5,000ppm (0.5%) boric acid, testicular atrophy was present while mice fed 2,500ppm showed no significant testicular atrophy. In another chronic boric acid study, degeneration of seminiferous tubules was present together with a reduction in germ cells in mice fed 4,500ppm boric acid. In a reproduction study on rats, 2,000ppm of dietary boric acid had no adverse effect on lactation, litter size, weight or appearance (Weir, Fisher, 1972). In a continuous breeding study in mice there was a reduction in fertility rates in males receiving 4,500ppm boric acid but not in females receiving 4,500ppm boric acid (Fail et al, 1992). The product is not listed as carcinogenic in Worksafe's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995) and studies indicate that the product is not carcinogenic or mutagenic.

POTENTIAL HEALTH EFFECTS

Inhalation:

Short term exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

Long Term exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short term exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.

Long Term exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short term exposure: This product is believed to be mildly irritating, to eyes, but is unlikely to cause anything more than mild transient discomfort.

Long Term exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short term exposure: Significant oral exposure is considered to be unlikely. However, this product is believed to be mildly irritating to mucous membranes but is unlikely to cause anything more than mild transient discomfort.

Long Term exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

SECTION 12 - ECOLOGICAL INFORMATION

This product is unlikely to adversely effect the environment. Salts, acids and bases are typically diluted and neutralised when released to the environment in small quantities. This product is unlikely to accumulate in body tissues. This product is likely to be mobile in soils.

Soil microorganisms: At high levels, borax could be toxic to many soil microorganisms.

Plants: Borax and other boron compounds at high levels may kill plants. Borax may be used as a nonselective herbicide. However, boron is an essential nutrient for plants, and boron compounds (including borax) occur widely in nature. Boron is taken up from soil by plants in proportion to the amount of boron in the soil. Borax is also used in fertilizer formulations to supply boron, which is an essential plant nutrient.

Aquatic animals: Borax is practically nontoxic to fish, and practically nontoxic to aquatic invertebrate animals. It does not build up (bioaccumulate) in fish.

Terrestrial animals: Borax is practically nontoxic to birds and mammals. It is relatively nontoxic to bees. Relatively high concentrations of boron compounds are toxic to insects, and borax is used for insect control in some cases.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal: This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to separate the contamination in some way. Only if neither of these options is suitable, consider landfill.

SECTION 14 - TRANSPORT INFORMATION

UN Number: This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

SECTION 15 - REGULATORY INFORMATION

AICS: This product is compliant with NICNAS regulations.
The following ingredient: Boric acid, is mentioned in the SUSMP.

SECTION 16 - OTHER INFORMATION

See our web site at www.lo-chlor.com

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

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 th edition)
AICS	Australian Inventory of Chemical Substances
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD STATEMENT: INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (Feb 2016)

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