



SAFTEY DATA SHEET

NORTHERN CHEMICALS PTY LTD
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1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product Identifier

Product Name BOWLINE
Synonym(s) BOW5L, BOW10L, BOW20L

1.2 Uses and uses advised against

Use(s) Toilet Bowl Cleaner & Deodorant

1.3 Details of the supplier of the product

Supplier Name Northern Chemicals Pty Ltd
Address 157 Hartley St, Cairns, QLD, 4870, Australia
Telephone (07) 4035 4622
Fax (07) 4035 4932
Email enquiries@northernchemicals.com.au
Website www.northernchemicals.com.au

1.4 Emergency telephone number(s)

Emergency (07) 4035 4622

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO AUSTRALIAN WHS REGULATIONS

GHS classification(s) Skin Corrosion/Irritation Category 2
Serious Eye Damage/Irritation Category 1
Acute Aquatic Hazard Category 3

2.2 Label elements

Signal word DANGER

Pictogram(s)



Hazard statement(s)

H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Prevention statement(s)

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.

Response statement(s)

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

P310 present and easy to do. Continue rinsing.
 Immediately call a POISON CENTER or doctor/physician.

Storage statement(s)

P405 Store locked up.

Disposal statement(s)

P501 Dispose of contents/container in accordance with local regulations.

2.3 Other hazards

N/A

3. COMPOSITION / INFORMATION ON INGREDIENTS**3.1 Substances / Mixtures**

INGREDIENT	CAS NUMBER	CONTENT
WATER	7732-18-5	>60%
SULFAMIC ACID	7681-38-1	10-30%
SURFACTANTS	-	<10%
SODIUM HYDROGEN SULFATE	7732-18-5	<10%

4. FIRST AID MEASURES**4.1 Description of first aid measures**

Eye If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Inhalation If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or

Skin If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.

Ingestion For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.

First aid facilities Eye wash facilities should be available.

4.2 Most important symptoms and effects, both acute and delayed

N/A

4.3 Immediate medical attention and special treatment needed

Treat symptomatically

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for

5.2 Special hazards arising from the substance or mixture

N/A

5.3 Advice for firefighters

Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.

Non combustible. Not considered to be a significant fire risk. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas. Heating may cause expansion or decomposition leading to violent rupture of containers. May emit corrosive, poisonous fumes. May emit acrid smoke.

Decomposition may produce toxic fumes of: phosphorus oxides (POx). May emit poisonous fumes. May emit corrosive fumes.

5.4 Hazchem code

N/A

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

See section 8

6.2 Environmental precautions

See section 12

6.3 Methods of cleaning up**MINOR SPILLS**

Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.

MAJOR SPILLS

Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Neutralise/decontaminate residue (see Section 13 for specific agent). Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services.

6.4 Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

7.2 Conditions for safe storage, including any incompatibilities

Sulfamic acid: Reacts violently with chlorine, nitric acid, fuming nitric acid, strong bases, chlorine, hypochlorous acid, strong oxidising agents, sulfides, cyanides or when heated with nitrates, nitrites is strongly acidic in aqueous solution. Hydrolyses to ammonium bisulfate at elevated temperatures. Is incompatible with alkylene oxides, aliphatic amines, alkanolamines, amides, ammonia, epichlorohydrin, organic anhydrides, isocyanates, metal nitrates/nitrites, oxidisers, vinyl acetate, common metals and their alloys, water.

Contact with metals may result in the evolution of hydrogen (H₂) which can form explosive mixtures in air. Avoid strong

7.3 Specific end use(s)

N/A

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Control parameters****OCCUPATIONAL EXPOSURE LIMITS (OEL)****Ingredient Data**

N/A

Emergency Limits

Ingredient	Material Name	TEEL-1	TEEL-2	TEEL-3
sulfamic acid	sulfamic acid	9.5 mg/m ³	100 mg/m ³	630 mg/m ³
sodium hydrogen sulfate	Sodium bisulfate monohydrate	0.63 mg/m ³	7 mg/m ³	42 mg/m ³

Ingredient	Original IDLH	Revised IDLH
sulfamic acid	N/A	N/A
sodium hydrogen sulfate	N/A	N/A

8.2 Exposure controls**Engineering Controls**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee

Personal Protective Equipment**Eye / Face**

Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

Hands / Feet

Elbow length PVC gloves When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.

Body

Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Respiratory

N/A

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear Blue Liquid	Relative density	N/A
Physical state	Liquid	pH	1
Odour	Herbal	Flammability	Non-flammable
Solubility in water	Miscible		

10. STABILITY AND REACTIVITY

10.1 Reactivity

See section 7

10.2 Chemical stability

Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not

10.3 Possibility of hazardous reactions

See section 7

10.4 Conditions to avoid

See section 7

10.5 Incompatible materials

See section 7

10.6 Hazardous decomposition products

See section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects**Inhaled**

The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness.

Ingestion

Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident. Accidental ingestion of the material may be damaging to the health of the individual.

Skin Contact

Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably

Eye

If applied to the eyes, this material causes severe eye damage. Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the epithelia generally recover rapidly and

Chronic

Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

BOWLINE	TOXICITY	IRRITATION
	N/A	N/A

sulfamic acid	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg	Eye (rabbit): 20 mg - moderate
	Oral (rat) LD50: ca.1450 mg/kg	Eye (rabbit): 250 ug/24 h - SEVERE
		Skin (human): 4 %/5 days (I)- mild
		Skin (rabbit): 500 mg/24 h-SEVERE

sodium hydrogen sulfate	TOXICITY	IRRITATION
	Oral (rat) LD50: >2000 mg/kg	N/A

Acute Toxicity	NO	Carcinogenicity	NO
Skin Irritation/Corrosion	YES	Reproductivity	NO
Serious Eye Damage/Irritation	YES	STOT - Single Exposure	NO
Respiratory or Skin sensitisation	NO	STOT - Repeated Exposure	NO
Mutagenicity	NO	Aspiration Hazard	NO

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Ingredient	Endpoint	Test Duration (hr)	Species	Value
sulfamic acid	LC50	96	Fish	14.2mg/L
sulfamic acid	EC50	96	Algae or other aquatic plants	115.1499mg/L
sulfamic acid	EC50	384	Crustacea	6.40973mg/L
sulfamic acid	NEOC	840	Crustacea	0.15mg/L
sodium hydrogen sulfate	LC50	96	Fish	7960mg/L
sodium hydrogen sulfate	EC50	48	Crustacea	190mg/L
sodium hydrogen sulfate	EC50	96	Algae or other aquatic plants	105.72278mg/L
sodium hydrogen sulfate	EC50	384	Crustacea	4222.331mg/L

DO NOT discharge into sewer or waterways.

12.2 Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sulfamic acid	HIGH	HIGH
sodium hydrogen sulfate	HIGH	HIGH

12.3 Bioaccumulative potential

Ingredient	Bioaccumulation
sulfamic acid	LOW (LogKOW = -4.3438)
sodium hydrogen sulfate	LOW (LogKOW = -2.2002)

12.4 Mobility in soil

Ingredient	Mobility
sulfamic acid	LOW (KOC = 6.124)
sodium hydrogen sulfate	LOW (KOC = 6.124)

12.5 Other adverse effects

N/A

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Product / Packaging disposal**

DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Treat and neutralise at an approved treatment plant. Treatment should involve: Neutralisation with soda-ash or soda-lime followed by burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material). Decontaminate empty containers with 5% aqueous sodium hydroxide or soda ash, followed by water. Observe all label safeguards until containers are

14. TRANSPORT INFORMATION**Labels Required**

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	2967	2967	2967
14.2 Proper Shipping Name	Sulfamic Acid	Sulfamic Acid	Sulfamic Acid
14.3 Transport hazard class	8	8	8
14.4 Packing Group	III	III	III
14.5 Subsidiary risk(s)	None Allocated	None Allocated	None Allocated
14.6 Environmental Hazard	Not Applicable	Not Applicable	Not Applicable
14.7 Hazchem Code	2R	2R	2R

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****SULFAMIC ACID(5329-14-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Substances Information System - Consolidated Lists	Australia Inventory of Chemical Substances (AICS)
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SODIUM HYDROGEN SULFATE(7681-38-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists	Australia Inventory of Chemical Substances (AICS)
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16. OTHER INFORMATION**16.1 Ingredients with multiple cas numbers**

sodium hydrogen sulfate	7681-38-1, 10034-88-5
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16.2 Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit.
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index