

AQUA BUFFER G

(ChemWatch name: SODIUM BICARBONATE)

ChemWatch Material Safety Data Sheet (REVIEW)
Issue Date: Tue 31-Dec-2002

CHEMWATCH 10448
CD 2004/2 Page 1 of 9

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

AQUA BUFFER G

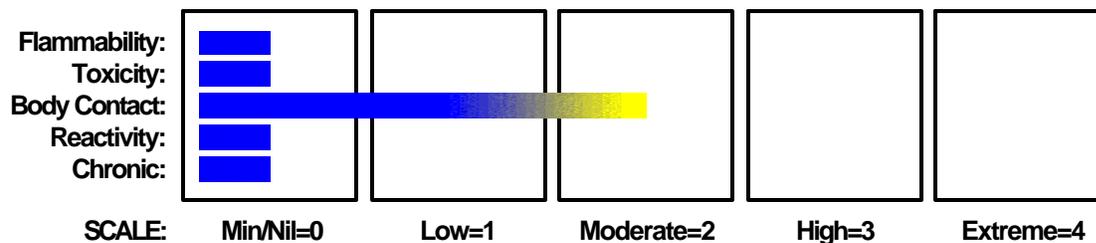
STATEMENT OF HAZARDOUS NATURE

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

SUPPLIER

Company: Andrew Limited
Address:
3 Porana Road
Glenfield
AUCKLAND
Telephone: 09 444 3733
Telephone: 0800 429 628
Emergency Tel: 0800 243 622
Fax: 09 444 3838

HAZARD RATINGS



PRODUCT USE

Manufacture of many sodium salts; source of carbon dioxide; component of dry powder fire extinguishers, and also Soda-Acid extinguishers. Food additive 500; ingredient of baking powder, effervescent salines and beverages. A mild alkali, used medicinally in low doses in antacid mixes. Also available as an intravenous infusion. Available as Technical, Pure, Food and BP grades.

AQUA BUFFER G

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ChemWatch Material Safety Data Sheet (REVIEW)

Issue Date: Tue 31-Dec-2002

CHEMWATCH 10448

CD 2004/2 Page 2 of 9

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ...

SYNONYMS

Na-H-CO ₃	C-H-O ₃ .Na
baking soda	bicarbonate of soda
carbonic acid, monosodium salt	monosodium carbonate
sodium acid carbonate	sodium hydrogen carbonate
soda mint	Food Additive 500
Deltrex	Swift Brybicarb

Section 2 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
sodium bicarbonate	144-55-8	>99

Section 3 - HAZARDS IDENTIFICATION



EMERGENCY OVERVIEW

HAZARD

- 6.1E Slightly harmful if swallowed
- 6.3B Mildly irritating to skin
- 6.4A Irritating to eyes.

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

continued...

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(ChemWatch name: SODIUM BICARBONATE)

ChemWatch Material Safety Data Sheet (REVIEW)

Issue Date: Tue 31-Dec-2002

CHEMWATCH 10448

CD 2004/2 Page 3 of 9

Section 3 - HAZARDS IDENTIFICATION ...

EYE

Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals.

Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

SKIN

Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.

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.

INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models).

Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by inhalation of generated dust and skin contact / eye contact

As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

Section 4 - FIRST AID MEASURES

SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

continued...

AQUA BUFFER G

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ChemWatch Material Safety Data Sheet (REVIEW)

Issue Date: Tue 31-Dec-2002

CHEMWATCH 10448

CD 2004/2 Page 4 of 9

Section 4 - 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.

SKIN

If skin or hair contact occurs:

- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear passage of breathing.
- If irritation or discomfort persists seek medical attention.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

There is no restriction on the type of extinguisher which may be used.

Use extinguishing media suitable for surrounding area

FIRE FIGHTING

Alert Fire Brigade and tell them location and nature of hazard.

- Wear breathing apparatus plus protective gloves for fire only.
- May be washed to drain with large quantities of water.

Use fire fighting procedures suitable for surrounding area.

Use water delivered as a fine spray to control the fire and cool adjacent area.

DO NOT approach containers suspected to be hot.

If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD

Product is not combustible. No special firefighting procedures required.

Heating may cause expansion or decomposition leading to violent rupture of containers

FIRE INCOMPATIBILITY

No known incompatibility with normal range of industrial materials

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Issue Date: Tue 31-Dec-2002

CHEMWATCH 10448

CD 2004/2 Page 5 of 9

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Clean up all spills immediately.
- Wear impervious gloves and safety glasses.
- Use dry clean up procedures and avoid generating dust.
- Sweep up.
- Place in suitable containers for disposal.

MAJOR SPILLS

- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Prevent, by any means available, spillage from entering drains or water courses.
- Stop leak if safe to do so.
- Use dry clean up procedures and avoid generating dust.
- Recover uncontaminated product in clean, dry, labelled containers
- Collect residues and seal in labelled drums for disposal
- Flush residue away with large quantities of water.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Use good occupational work practice. Observe manufacturer's storing and handling recommendations.
- Avoid generating and breathing dust.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area
- Avoid contact with incompatible materials. Avoid sources of heat.
- 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.

SUITABLE CONTAINER

- Packaging as recommended by manufacturer.
- Check that containers are clearly labelled
- Multi-wall paper container NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse.
- Multi-ply woven plastic or paper bag with sealed plastic liner
- NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse.
- Glass container

continued...

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ChemWatch Material Safety Data Sheet (REVIEW)

Issue Date: Tue 31-Dec-2002

CHEMWATCH 10448

CD 2004/2 Page 6 of 9

Section 7 - HANDLING AND STORAGE ...

Plastic drum
Polyethylene or polypropylene container

STORAGE REQUIREMENTS

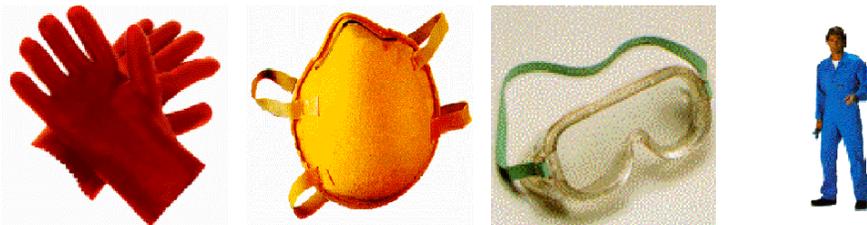
- Store in original containers.
 - Keep containers securely sealed.
 - Store in a cool, dry, well-ventilated area.
 - Store away from incompatible materials and foodstuff containers.
 - Protect containers against physical damage and check regularly for leaks.
 - Observe manufacturer's storing and handling recommendations.
- Keep dry

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Particulates not otherwise classified
WES TWA 10 mg/m³, inspirable dust
Particulates not otherwise classified
WES TWA 3 mg/m³, respirable dust
TLV TWA: 10 mg/m³ (Value for particulate matter containing no asbestos and <1% crystalline silica, Inhalable fraction) [ACGIH]
TLV TWA: 3 mg/m³ (Value for particulate matter containing no asbestos and <1% crystalline silica, Respirable fraction) [ACGIH]
Dusts not otherwise classified, as inspirable dust;
ES TWA: 10 mg/m³

PERSONAL PROTECTION



EYE

- Safety glasses with side shields
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS/FEET

Impervious gloves
PVC gloves
Rubber gloves
Safety footwear

continued...

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ChemWatch Material Safety Data Sheet (REVIEW)

Issue Date: Tue 31-Dec-2002

CHEMWATCH 10448

CD 2004/2 Page 7 of 9

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

OTHER

- Overalls
- Impervious apron
- Barrier cream
- Eyewash unit.

ENGINEERING CONTROLS

Use in a well-ventilated area
General exhaust is adequate under normal operating conditions.
If exposure to workplace dust is not controlled, respiratory protection is required; wear SAA approved dust respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Solid.
Mixes with water.

Molecular Weight: 84.0
Melting Range (°C): 70 (decomposes)
Solubility in water (g/L): Miscible
pH (1% solution): 8.4
Volatile Component (%vol): Nil
Relative Vapour Density (air=1): Not applicable.
Lower Explosive Limit (%): Not applicable
Autoignition Temp (°C): Not applicable
State: Divided solid

Boiling Range (°C): Not applicable.
Specific Gravity (water=1): 2.16
pH (as supplied): Not applicable
Vapour Pressure (kPa): Not applicable.
Evaporation Rate: Not applicable
Flash Point (°C): Not applicable
Upper Explosive Limit (%): Not applicable
Decomposition Temp (°C): 270

APPEARANCE

White, crystalline odourless powder or granules. Soluble in water.
Begins to lose carbon dioxide at about 50 deg.C., and at 100 deg.C it is converted into sodium carbonate. Insoluble in alcohol.
Readily decomposed by weak acids. Slowly decomposes in moist air.

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Presence of incompatible materials
Long term storage and Storage in unsealed containers
Stable under normal storage conditions
Hazardous polymerisation will not occur.

continued...

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Issue Date: Tue 31-Dec-2002

CHEMWATCH 10448

CD 2004/2 Page 8 of 9

Section 11 - TOXICOLOGICAL INFORMATION

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TOXICITY

Oral (human-infant) TDLo :1260 mg/kg

Oral (rat) LD50 : 4220 mg/kg

IRRITATION

Skin (human): 30 mg/3d-I-mild

Eye (rabbit): 100 mg rinse - mild

[RTECS]

Section 12 - ECOLOGICAL INFORMATION

No data for sodium bicarbonate.

Section 13 - DISPOSAL CONSIDERATIONS

Recycle wherever possible.

Consult manufacturer for recycling options.

Consult State Land Waste Management Authority for disposal.

Bury residue in an authorised landfill.

Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

Shipping Name: NONE

Hazard Class: None

UN/NA Number: None

ADR Number:

Packing Group: None

Labels Required:

Additional Shipping Information:

International Transport Regulations:

IMO: None

Section 15 - REGULATORY INFORMATION

SAFETY

Avoid contact with skin.

Wear eye/ face protection.

In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

continued...

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CHEMWATCH 10448

CD 2004/2 Page 9 of 9

Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE

0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

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