

VIRTUE

DL Beer Kleen

Safety Data Sheet

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1. IDENTIFICATION OF MATERIAL AND SUPPLIER

Product Name: DL BEERKLEEN LIQUID
Other Names:
Recommended use of the chemical and restrictions on use: Concentrated alkaline liquid beer line cleaner. For use in cleaning beer line system.
Supplier: Stelco Chemicals International Pty Ltd
ABN: 17 151 834 347
Street Address: 46 – 48 Henderson Road
Rowville VIC 3178
Australia
Telephone: 61 3 9757 3100
Facsimile: 61 3 9763 8243
Emergency Telephone Number: 0412 318 882

2. HAZARDS IDENTIFICATION

Classified as Hazardous according to the criteria of Safe Work Australia.

GHS classification:

Skin corrosion/irritation – category 1A
STOT, SE – category 3

Signal word: DANGER

Pictogram:

GHS05: Corrosion

GHS07: Exclamation mark



Hazard statements:

H314: Causes severe skin burns and eye damage.
H335: May cause respiratory irritation.

Precautionary statements:

Prevention:

P102: Keep out of reach of children.
P234: Keep only in original container.
P261: Avoid breathing mist/ vapours/ spray.
P271: Use only in a well-ventilated area.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

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



Safety Data Sheet

P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.

P363: Wash contaminated clothing before reuse.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312: Call a POISON CENTER or doctor/ physician if you feel unwell.

P321: Specific treatment (see First Aid Measures on Safety Data Sheet).

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

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

P405: Store locked up

Disposal

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Potassium Hydroxide	1310-58-3	<10%	H302, H318
Sodium Perborate, Tetrahydrate	10486-00-7	<3%	H360Df, H318, H335
Trisodium Phosphate	7601-54-9	1-3%	H314
Sodium Metasilicate	6834-92-0	<1%	H314, H335
Non-Hazardous ingredients	7732-18-5	balance	-

4. FIRST AID MEASURES

Description of first aid measures

Inhalation: If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Do not give direct mouth-to-mouth resuscitation. To protect rescuer, use air-viva, oxy-viva or one-way mask. Resuscitate in a well-ventilated area.

Skin contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water

Eye contact: If in eyes. Hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre (Australia 13 11 26) or by a doctor, or for at least 15 minutes.

Ingestion: If person is conscious, rinse mouth thoroughly with water, first then give a glass of water to drink. If swallowed, DO NOT induce vomiting. If vomiting occurs, wash out mouth again with water and give another glass of water to drink. Seek medical attention urgently.

Symptoms caused by exposure

Symptoms/effects after inhalation: Severe irritant. Effects from inhalation of dust or mist vary from mild irritation to serious damage of the upper respiratory tract, depending on the severity of exposure. Symptoms may include coughing, sneezing, damage to the nasal or respiratory tract. High concentrations can cause lung damage.



Safety Data Sheet

Symptoms/effects after skin contact:	Contact with skin can cause irritation or severe burns and scarring with greater exposures.
Symptoms/effects after eye contact:	Causes irritation of eyes with tearing, redness, swelling. Greater exposures cause severe burns with possible blindness resulting.
Symptoms/effects after ingestion:	Swallowing may cause severe burns of mouth, throat and stomach. Other symptoms may include vomiting, diarrhoea. Severe scarring of tissue and death may result.
Chronic symptoms:	Prolonged contact with dilute solutions or dust has a destructive effect on tissue.

Medical attention and special treatment

Treat symptomatically as for strong alkali. Can cause the corneal burn. Mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing equipment:

Carbon dioxide, foam, dry powder, water, water spray.

Specific hazards arising from the chemical:

Not combustible. However, if involved in a fire will emit toxic fumes. Can react with chemically reactive metals such as aluminium, zinc, magnesium, copper, etc. to release hydrogen gas which can form explosive mixtures with air.

Hazchem Code: 2X

Special protective equipment and precautions for firefighters:

Hot material can react violently with water. Keep containers exposed to extreme heat cool with water spray. Firefighters to wear self-contained breathing apparatus if a risk of exposure to products of combustion or decomposition.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Clear area of all unprotected personnel. Increase ventilation. Wear full protective equipment, including impervious footwear.

Environmental precautions:

Avoid release to the environment.

Methods and materials for containment and cleaning up:

SMALL SPILLS/LARGE SPILLS: Eliminate all ignition sources. Contain using sand or soil – prevent runoff into drains and waterways. Place into a sealed container for disposal. Ventilate and wash area after clean-up is complete.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid skin and eye contact and breathing in vapour, mists or aerosols.



Safety Data Sheet

Wash exposed skin thoroughly after handling.

Conditions for safe storage:

No separate storage section required. However, product is a Scheduled Poison (S5) and must be store in accordance with the relevant State Poisons Act. Store away from strong oxidising compounds and acids in a cool place (5-50 °C).

Ensure containers are correctly labelled and securely sealed and stowed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure control measures:

No value assigned for this specific material by Safe Work Australia. However, Exposure Standard(s) for constituents(s):

POTASSIUM HYDROXIDE: TWA 2 mg/m³ Peak Limitation

TWA – The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

Peak Limitation – a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Use with local exhaust ventilation or while wearing respirator. Keep containers closed when not in use.

Individual protection measures, such as Personal Protective Equipment (PPE):

OVERALLS, SAFETY SHOES, FACE SHIELD OR AIR MASK, NITRILE GLOVES (Long).

Wear overalls, full-face shield, elbow-length impervious gloves, splash apron and rubber boots. Available information suggests that gloves made from neoprene, nitrile or natural rubber should be suitable for intermittent contact. However, due to variations in construction and local conditions, a final assessment should be made by the user. Use with adequate ventilation. If inhalation risk exists wear air purifying respirator fitted with an acid-gas filter meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or reusing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour:	Clear, straw thin liquid with no specific odour.
Boiling Point/Melting Point (°C):	Approx. 100
Vapour Pressure:	Not Available
Percent Volatile by volume:	80-85
Specific Gravity:	1.05
pH (concentrate):	12.5-13.0
pH (use in dilution of 1%):	9.0-10.0
Solubility in water:	100%
Other Data:	None
Flash Point (°C):	None

10. STABILITY AND REACTIVITY

Reactivity:	React violently with strong acids
Chemical stability:	Stable under ordinary conditions of use and storage.
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Heat, moisture, incompatibles.
Incompatible materials:	Contact with water, acids, flammable liquids and organic halogen compounds, especially trichloroethylene, may cause fire or explosion. Contact with nitromethane and other similar nitro compounds cause formation of shock sensitive salts. Contact with metals such as aluminium, tin and zinc causes formation of flammable hydrogen gas.
Hazardous decomposition products:	Carbon monoxide when reacting with carbohydrates, and hydrogen gas when reacting with aluminium, zinc and tin. Thermal oxidation can produce toxic fumes of potassium oxide

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:	POTASSIUM HYDROXIDE: Oral: LD50 (rats) 273–1230 mg/kg bw. SODIUM PERBORATE TETRAHYDRATE: Oral: LD50 2567 mg/kg bw Inhalation: LC50 1.65 mg/L. TRISODIUM PHOSPHATE: Oral: LD50 >2000 mg/kg bw
Skin corrosion/irritation:	POTASSIUM HYDROXIDE is corrosive to the skin, eyes and respiratory tract. It is also corrosive following ingestion. It causes deep penetrating burns and necrosis. Based on human data, concentrations of 0.5–2.0 % are irritating to the skin, while a concentration greater than 2.0 % is corrosive.
Serious eye damage/irritation;	SODIUM PERBORATE TETRAHYDRATE caused mild corneal opacity, slight iritis and conjunctival effects, which consisted of severe redness, moderate chemosis and severe discharge (rabbits).
Respiratory or skin sensitisation:	Not considered to be a skin sensitiser.
Germ cell mutagenicity:	No data available.
Cancerogenicity:	No data available.
Reproductive toxicity:	SODIUM PERBORATE TETRAHYDRATE: NOAEL for males or females was below 1000 mg/kg bw/day. The NOAEL for developmental toxicity was established as 100 mg/kg bw/day (7 mg boron/kg bw/day).
Specific Target Organ Toxicity	POTASSIUM HYDROXIDE: inhalation exposure to the particles or the



Safety Data Sheet

(STOT): - single exposure: mist will cause such damages as burns to the nose and bronchial tube and result even in lung edemas.

Specific Target Organ Toxicity (STOT): - single repeated exposure: May cause respiratory irritation.

Aspiration hazard: No data available.

Likely routes of exposure: Skin contact. Eye contact. Ingestion.

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing may cause severe burns of mouth, throat and stomach. Other symptoms may include vomiting, diarrhea. Severe scarring of tissue and death may result.

Skin contact: Contact with skin can cause irritation or severe burns and scarring with greater exposures.

Eye contact: Causes irritation of eyes with tearing, redness, swelling. Greater exposures cause severe burns with possible blindness resulting.

Inhalation: Severe irritant. Effects from inhalation of dust or mist vary from mild irritation to serious damage of the upper respiratory tract, depending on the severity of exposure. Symptoms may include coughing, sneezing, damage to the nasal or respiratory tract. High concentrations can cause lung damage.

12. ECOLOGICAL INFORMATION

Ecotoxicity: SODIUM PERBORATE TETRAHYDRATE: 48h-EC50 = 6.98 mg/L for Crustacea (*Ceriodaohnia dubia*)
TRISODIUM PHOSPHATE: 96h-LC50 = 28.5 mg/L for fish
SODIUM SILICATE: 96h LC50 = 210 mg/L for fish (zebra fish)

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Reuse reclaimed material if possible. Disposal into sewer is strongly discouraged. Fully absorb liquid wastes into solid substrate and place in containers before sending to a chemical or industrial waste landfill. Small quantities may be disposed of with normal industrial refuse. Suitable for incineration by licensed contractors or the manufacturer for proper disposal method in your area.

14. TRANSPORT INFORMATION

Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.



UN No: 3266
Proper shipping name or technical name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
Transport hazard class: 8 Corrosive
Packing Group number: II
Hazchem or Emergency Action Code: 2X

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No: 3266
Proper shipping name or technical name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
Transport hazard class: 8 Corrosive
Packing Group number: II
IMDG EMS Fire: F-A
IMDG EMS Spill: S-B

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No: 3266
Proper shipping name or technical name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
Transport hazard class: 8 Corrosive
Packing Group number: II

15. REGULATORY INFORMATION

Poisons Schedule Number: Schedule 6 (S6)

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION



Safety Data Sheet

This Safety Data sheet has been prepared by Stelco Chemicals International Pty Ltd.

This SDS summarises at the date of issue our best knowledge of the health and safety information of the product, and in particular how to safely handle and use the product in the workplace. As each workplace is different each user must, prior to use, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact Stelco Chemicals International Pty Ltd at the contact details on page 1.