



Section 1: Identification of the Material and Supplier

Product Name: Alka Klenz Plus

Other Names: Alkaline mixture of inorganic salts and surfactants.

Proper shipping name (ADG Code):
Corrosive solid, basic, inorganic, n.o.s.
(sodium hydroxide, disodium trioxosilicate)

Recommended use: As a dairy detergent.
Use as directed on the product label.

Supplier: DASCO Pty. Ltd.,
ABN: 14 004 581 113
24 - 26 Helen Street, HEIDELBERG HEIGHTS VIC 3081
Tel: (03) 9459 7004 (business hours)
Fax: (03) 9459 9200

Emergency Phone Numbers:
Transport/Fire Emergency: 000 (Emergency services)
Medical Emergency: 131126 (Poisons Information Centre)

Section 2: Hazards Identification

Classified as hazardous according to criteria of Worksafe Australia.

Dangerous goods.

Risk Phrases: R: 35 Causes severe burns.

Safety Phrases: S: 1/2 Keep locked up and out of the reach of children.
S: 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S: 37/39 Wear suitable gloves and eye/face protection.
S: 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 3: Composition/Information on Ingredients

Ingredients:

Sodium hydroxide	[1310-73-2]	10 - 20 %
Sodium metasilicate pentahydrate	[10213-79-3]	10 - 20 %
Sodium carbonate anhydrous	[497-19-8]	30 - 60 %
Mixed surfactants		< 10 %
Other ingredients deemed not to be hazardous		to 100 %

Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131 126) or a doctor.

Swallowed: If swallowed, do NOT induce vomiting.

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

Eyes: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Center or a doctor, or for at least 15 minutes.

Inhaled: Remove from exposure, rest and keep warm. Unless exposure has been slight, seek medical advice.

First Aid facilities:

Mandatory: Eye wash. Hand wash basin.

Recommended: Emergency shower if handling industrial quantities.

Advice to Doctor:

Product is a mixture of inorganic salts containing moderate proportions of sodium hydroxide and sodium metasilicate, and a low proportion of mixed surfactants. Causes severe burns to all tissues. If swallowed, may cause perforation of stomach and intestines; gastric lavage may be contraindicated. May cause swelling of the larynx and subsequent suffocation. Contact Poisons Information Centre.

Aggravated medical conditions:

No data found.

Section 5: Fire Fighting Measures

HAZCHEM Code: 2 X

Extinguishant: Water fog or fine water spray.

Risk of violent reaction or explosion: No.

Products of combustion: Carbon dioxide, oxides of phosphorus, traces of sulphur oxides.

Protective Equipment: Full protective clothing including breathing apparatus and protective gloves.

Section 6: Accidental Release Measures

Emergency Procedures:

Contain.

For large spills:

Contain spillage using sand or earth. Transfer both liquids and solids to suitable container. Treat residues as for small spillages.

For small spills:

If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb on inert absorbent, transfer to suitable container and arrange removal by disposals company.

Section 7: Handling and Storage

Precautions for safe handling:

Avoid contact with skin and eyes.

Keep away from acids and acidic salts, active metals such as aluminium, tin and zinc, wood and wood products (including paper, cardboard, chipboard).

Conditions for safe storage:

Store in a cool, well ventilated place, out of reach of children.

Large quantities should be stored in a dangerous goods store.

Store in original container. Keep container tightly closed and out of direct sunlight. Keep away from acids, active metals, ammonium compounds, oxidising agents, wood and wood products. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

Incompatibles:

Oxidising agents, acids, active metals, wood and wood products, ammonium compounds, organic halides, nitro compounds, metal salts.

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

ES-TWA: Sodium hydroxide 2 mg/m³

ES-STEL: None assigned.

ES-PEAK: Sodium hydroxide 2 mg/m³

Notations: None.

[Peak] indicates a ceiling concentration which should not be exceeded, even momentarily.

Biological Limit Values: No data found.

Engineering Controls:

Do not use aluminium, tin, zinc or galvanised iron, wood or wood products, or glass as materials of construction.
Ensure adequate ventilation (same as outdoors) when using.
If handling industrial quantities, or if dust/aerosol risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible, and at least below the TLV.

Personal Protective Equipment:

Avoid contact with skin and eyes. Do not breathe dusts or aerosols. Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:-

Normal Use:

Eye/face protection
Gloves, rubber or plastic.

Industrial Quantities:

Face shield or safety glasses
Gloves, rubber or plastic
Plastic apron, sleeves and boots
Impervious overalls.

Section 9: Physical and Chemical Properties

Appearance: White, granular powder.
Odour: Slight detergent smell.
pH: 14 Very alkaline.
Vapour Pressure: No data.
Vapour Density: No data.
Boiling Point: No data.
Melting Point: No data.
Volatiles: Nil.
Volatile Organic Compounds (VOC): Nil.
Evaporation Rate: Not applicable.
Solubilities: Soluble in water with evolution of much heat.
Specific Gravity/Density: No data.
Flash Point: None.
Flammable Limits: None.
Dust Explosion: Will not occur.
Auto-ignition Temperature: No data.

Other Information:

Very alkaline. Will react violently with acids and acidic salts. Hygroscopic, will absorb moisture from the air. Will absorb carbon dioxide from the air. Contact with acids will generate carbon dioxide, a simple asphyxiant. Contact with ammonium compounds may generate ammonia, a toxic gas. Corrosive to active metals, such as aluminium, tin and zinc, generating hydrogen, a flammable gas. Will attack wood and wood products. May form shock-sensitive products with organic nitro compounds. May attack glass on long contact. Spillages will be slippery when wet.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible materials, air, moisture.

Incompatible Materials: Acids, ammonium compounds, active metals, nitro compounds, metal salts, organic halides, wood and wood products.

Hazardous Decomposition Products: Carbon dioxide, oxides of phosphorus, traces of sulphur oxides.

Hazardous Reactions: Reacts violently with acids, generating carbon dioxide. May generate ammonia gas on contact with ammonium compounds. May generate hydrogen gas on contact with active metals. May form shock-sensitive compounds with organic nitro compounds.
Do not mix with hot water - the mixture may get hot enough to boil.

Section 11: Toxicological Information

Health Effects:

No data available for the mixture. Information presented relates to individual ingredients.

Acute:	Swallowed:	Corrosive. May cause severe burns to mouth, throat, stomach and intestines. May cause holes in the stomach and intestines. May cause nausea, vomiting, abdominal pains and diarrhoea (occasionally bloody), fall in blood pressure, heart failure, coma and death. If not immediately fatal, may form constrictive scarring. Damage may not appear for several days, but may still prove fatal.
	Skin:	Causes severe, deep burns. Mists, aerosols and dusts may cause small burns. Symptoms may include redness, pain and serious skin burns.
	Eyes:	Causes severe, deep burns. Contact with the eyes rapidly causes severe tissue damage, redness, pain and blurred vision. May cause permanent visual impairment.
	Inhaled:	Inhalation of dust or aerosols may cause damage to the upper respiratory tract and to the lungs. Effects may range from mild irritation of the mucous membranes to severe pneumonitis (inflammation of lung tissues), with cough, a burning sensation, laboured breathing, sneezing, sore throat and runny nose. Inhalation may cause pulmonary oedema (fluid build-up in the lungs). Onset of symptoms may be delayed by several hours.
Chronic:		Repeated skin exposure may lead to dermatitic effects. The sites of scarring in the stomach have been linked with later development of stomach cancer.
LD50:	Sodium hydroxide	No data found.
	Sodium carbonate anhydrous	4,090 mg/kg oral, rat.
	Sodium metasilicate pentahydrate	1,153 mg/kg oral, rat. 770 mg/kg oral, mouse.
LC50:	Sodium carbonate anhydrous	2,300 mg/m ³ /2 hours, rat.
LDLo:	Sodium hydroxide	500 mg/kg oral, rabbit.

Section 12: Ecological Information

Ecotoxicity:	Harmful to aquatic organisms.
Persistence and degradability:	No data.
Mobility:	Readily transported by water.
Environmental Fate:	No data.
Bioaccumulative potential:	No data.
Other adverse environmental effects:	Contains a moderate proportion of phosphate; may contribute to the development of algal bloom. Contains a low proportion of an alkoxyated alcohol; local concentrations may be harmful to aquatic organisms, including fish.

Section 13: Disposal Considerations

The generator of any wastes from this product is responsible for its proper classification, transport and disposal.

Consult appropriate local and State regulations.

Disposal methods and containers:

Avoid disposal to natural waters or the environment.
Do not use metal containers.

Special precautions for landfill or incineration:

Not suitable for incineration.
May not be suitable for some landfill sites.

Section 14: Transport Information

UN Number:	UN 3262
UN Proper shipping name:	Corrosive solid, basic, inorganic, n.o.s. (sodium hydroxide, disodium trioxosilicate)
Class and subsidiary risk:	8 Corrosive
Packaging group:	II
Special precautions for user:	Do not store or transport with dangerous goods of classes 1, 4.3, 5.1, 5.2, 7, 8 (acids), foodstuffs or foodstuff empties. Contain spillages.
HAZCHEM Code:	2 X
Material for export:	Regulated. Refer to IMO/IMDG and IATA/ICAO .

Section 15: Regulatory Information

Poisons (SUSDP): S6 Sodium hydroxide > 5 %

Dangerous Goods: Yes. UN 3262 8/II 2 X.

Carcinogen:	Australia	IARC	NTP	RTECS
	No.	No.	No.	No.

Agricultural and Veterinary Chemicals Act:

This product is registered with the Australian Pesticides and Veterinary Medicines Authority (**APVMA**).

Australian Inventory of Chemical Substances (AICS): Listed.

Other National/International Regulations: No data found.

Section 16: Other information

Date of MSDS update: September 2009
Complete review and re-write of all sections.

Abbreviations:

NOHSC - National Occupational Health and Safety Commission.
ACGIH - American Conference of Governmental Industrial Hygienists.
MAK - Maximum workplace concentration - Germany,
(*maximale Arbeitsplatzkonzentration*)
IARC - International Agency for Research on Cancer (France).
NTP - National Toxicology Program (USA).
RTECS - Registry of Toxic Effects of Chemical Substances.

Literature references:

Available Sources of Data:

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [2011(2003)] - NOHSC.
Australian Dangerous Goods Code.
Standard for the Uniform Scheduling of Drugs and Poisons - AHMAC.
Exposure Standards for Atmospheric Contaminants in the Occupational Environment [1003]- NOHSC.
List of Designated Hazardous Substances [10005] - NOHSC.
Merck Index - Merck Inc.
Sax's Dangerous Properties of Industrial Materials - Lewis.
Handbook of Toxic and Hazardous Chemicals and Carcinogens - Sittig.
Handbook of Reactive Chemical Hazards - Bretherick.
Hawley's Condensed Chemical Dictionary - Wiley Interscience.
AUSREG's Chemical Data Package for PCs - AUSREG Consultancy.