SAFETY DATA SHEET

C-Tec Conquer

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	C-Tec Conquer
OTHER NAMES:	C-Tec Conquer
RECOMMENDED USE:	Concentrated Laundry Builder
SUPPLIER NAME:	2CARE PRODUCTS
ADDRESS:	9 Donnor Place Mt Wellington AUCKLAND
Phone:	0800 753 753
Fax:	(09) 574 5999
Emergency Telephone:	0800 764 766 NEW ZEALAND NATIONAL POISON CENTRE

2. HAZARD(S) IDENTIFICATION

GLOBALLY HARMONISED SYSTEM

HAZARD CLASSIFICATION: HAZARDOUS according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

HAZARD CATEGORIES

Acute Toxicity (Oral)	Category 4
Acute Toxicity (Skin)	Category 5
Corrosive to Metals	Category 1
Skin Corrosion/Irritation	Category 1B
Serious Eye Damage/Irritation	Category 1
Aquatic Toxicity (Acute)	Category 3
Ecotoxic to Terrestrial Vertebrates	

PICTOGRAMS

SIGNAL WORD: **DANGER**

HAZARD STATEMENTS

H290 – May be corrosive to metals.
H302 – Harmful if swallowed.
H313 – May be harmful in contact with skin.
H314 – Causes severe skin burns and eye damage.
H318 – Causes serious eye damage.
H402 – Harmful to aquatic life.
H433 – Harmful to terrestrial vertebrates.

PRECAUTIONARY STATEMENTS

PREVENTION	P102 – Keep out of reach of children. P103 – Read label before use. P104 – Read Safety Data Sheet before use. P234 – Keep only in original container. P260 – Do not breathe fumes. P264 – Wash hands thoroughly after handling. P270 – Do not eat, drink or smoke when using this product. P273 – Avoid release to the environment. P280 – Wear protective gloves, clothing and eye/face protection.
RESPONSE	P101 – if medical advice is needed, have product container or label at hand. P310 – **IMMEDIATELY** call a **POISON CENTRE** or Doctor/Physician. P312 – Call NZ POISON CENTRE or doctor/physician if you feel unwell. P321 – **IF SWALLOWED,** give water to dilute and contact 111 immediately. P330 – Rinse mouth. P331 – Do **NOT** induce vomiting. P363 – Wash contaminated clothing before re-use P390 – Absorb spillage to prevent material damage. P301 + P312 – **IF SWALLOWED:** Call NZ POISON CENTRE or doctor/physician if you feel unwell. P301 + P330 + P331 – **IF SWALLOWED**: Rinse mouth. Do **NOT** induce vomiting. P303 + P361 + P353 – **IF ON SKIN**: Remove all affected clothing **IMMEDIATELY**. Rinse skin with water/shower. P304 + P340 – **IF INHALED**: Remove to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 – **IF IN EYES**: Rinse cautiously for several minutes. **REMOVE** contact lenses if present and safe to do so. Continue rinsing.
STORAGE	P405 – Store locked up. P406 – Store in corrosive resistant plastic container with a resistant inner liner.
DISPOSAL	P501 - Do not let this product enter the environment. Do not dispose of in waterways or sewers. Dispose of this material and its container as hazardous waste, via a licensed facility. See local council for disposal/recycling information.

ENVIRONMENTAL PROTECTION AUTHORITY (NEW ZEALAND)

HSNO CLASSIFICATIONS

Toxicity Hazards

6.1D (Oral)	Substances that are acutely toxic – Harmful.
6.1E (Skin)	Substances that are acutely toxic –May be harmful.
8.1A	Substances that are corrosive to metals.
8.2B	Substances that are corrosive to dermal tissue UN PGII
8.3A	Substances that are corrosive to ocular tissue.
9.1D	Substances that are slightly harmful to the aquatic environment.
9.3C	Substances that are harmful to terrestrial vertebrates.

The information contained in this SDS is specific to the product when handled and used neat. This product when diluted may not require the same control measures as the neat product. Check with your technical representative if in doubt.

POISONS SCHEDULE (AUS): S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium Hydroxide	NaOH	1310-73-2	< 50%
2-Phosphonobutane-1,2,4-tricarboxylic acid	$C_7H_{11}O_9P$	37971-36-1	< 5%
Other ingredients			< 10%
Water	H_2O	7732-18-5	Balance

4. FIRST AID MEASURES

INGESTION — **DO NOT** induce vomiting. If person is conscious give water to drink immediately to dilute the caustic soda. Seek **URGENT** medical attention.

EYE CONTACT — **IMMEDIATELY** flush eyes with copious amounts of water for at least 30 minutes while holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Washing must be started within 10 seconds of contact and continued for 30 minutes to prevent permanent injury. Seek immediate medical attention. An Ophthalmology consultation is a must.

SKIN CONTACT — **REMOVE** contaminated clothing. **IMMEDIATELY** flush the contaminated skin thoroughly with water for at least 15 minutes. Seek medical attention **URGENTLY** if burning or irritation persists.

INHALATION — Seek **URGENT** medical help. Remove victim from exposure to fresh air. Provide emergency airway support. Give 100% humidified supplemental oxygen with artificial respiration. **TRANSPORT** to emergency medical facility without delay.

SAFETY MEASURES — Potable water should be available to rinse eyes or skin. Provide eye baths and safety showers. Treat symptomatically.

PHYSICIAN NOTES — For acute or short-term repeated exposures to highly alkaline materials:
Respiratory stress is uncommon but present occasionally because of soft tissue oedema. Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary. Oxygen is given as indicated. The presence of shock suggests perforation and mandates an intravenous line and fluid administration. Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue. Alkalis continue to cause damage after exposure.

Persons with lung diseases may be at an increased risk due to the toxic effects of this chemical on these organs.

5. FIRE FIGHTING METHODS

GENERAL MEASURES — Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.

FLAMMABILITY CONDITIONS — Product is not combustible.

EXTINGUISHING MEDIA — Use extinguishing media appropriate for surrounding fire.

HAZARDOUS PRODUCTS OF COMBUSTION — The product is non-combustible; however, the packaging material may burn to emit corrosive fumes. Contact with metals may liberate hydrogen gas which is extremely flammable.

SPECIAL FIRE FIGHTING INSTRUCTIONS	**DO NOT** allow firefighting water to reach waterways, drains or sewers. Store fire-fighting water for treatment.
PERSONAL PROTECTIVE EQUIPMENT	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots and gloves) or chemical splash suit. Please note: Structural fire fighters protective clothing is recommended for fire situations only, it is not effective in spills.
HAZCHEM CODE	2W

6. SPILLAGE/ACCIDENTAL RELEASE MEASURES

GENERAL RESPONSE PROCEDURE	Clear area of all unprotected personnel. Allow only trained personnel wearing appropriate protective equipment to be involved in spill response. Contain spill, avoid accidents, clean up immediately. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt. Use clean, non-sparking tools and equipment. Shut off all possible sources of ignition. **CAUTION:** Contact with metals may liberate hydrogen gas which is extremely flammable.
CLEAN UP PROCEDURES	Mechanically collect as much of the spill as possible. Absorb with sand, earth or clay. Transfer to suitable, labelled corrosion resistant containers and dispose of promptly as hazardous waste. Spill on areas other than pavement (e.g. dirt and sand) may be handled by removing the affected soils and placing in approved containers.
CONTAINMENT	Stop leak if safe to do so. Contain spill immediately.
DECONTAMINATION	Dilute acid (preferably acetic acid may be used to neutralise residual traces of caustic soda) after flushing.
ENVIRONMENTAL PRECAUTIONARY MEASURES	Prevent run off into drains and waterways. If contamination of sewers or waterways has occurred advise the Environmental Protection Authority and/or your local Waste Authority.
EVACUATION CRITERIA	Evacuate all non-essential personnel.
PERSONAL PRECAUTIONARY MEASURES	Personnel involved in the clean-up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

HANDLING	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Avoid contact with eyes, skin and clothing. Do not inhale vapours. Avoid prolonged or repeated exposure. Do not smoke, eat or drink when handling product. Product can react violently with acids. Emergency showers and eye-washes must be available.
STORAGE	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Store away from aluminium, tin, zinc and alloys (bronzes), chrome and lead. Protect from damp and kept apart from acids, halogenated hydrocarbons, nitroparaffins, etc. The floor must be waterproof and anti-slip. A water supply or source must be provided in the place of storage. Emergency showers and eye-washes must be available. Keep out of reach of children.

CONTAINER	Store in original packaging as approved by manufacturer. Do not store in Aluminium or galvanised containers nor use die cast zinc or aluminium fittings (e.g. valves and bungs.)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

GENERAL	Sodium Hydroxide – [CAS 1310-73-2]	
EXPOSURE LIMITS	TWA-Ceiling 2mg/m^3 from New Zealand Workplace Exposure Standards.	
BIOLOGICAL LIMITS	No information available on biological limit values for this product.	
ENGINEERING MEASURES	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded.	
PERSONAL PROTECTIVE EQUIPMENT	RESPIRATOR	If determined an inhalation risk is present. Use a P2 grade disposable mask which conforms to the requirements of AS1715/1716).
	EYES	Use splash proof safety goggles, and/or if necessary an appropriate full-face shield that conform to AS1336/1337.
	HANDS	Any Gloves approved for chemical hazards that conform to AS2161.
	CLOTHING	Trousers, Long sleeved shirt and closed shoes.

9. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL STATE	Liquid
APPEARANCE	Free flowing
COLOUR	Clear
ODOUR	Odourless
pH	14.0
DENSITY	No Data Available
VAPOUR PRESSURE	No Data Available
VAPOUR DENSITY	No Data Available
BOILING POINT	No Data Available
FREEZING POINT	No Data Available
SOLUBILITY	Complete in water
SHELF LIFE	2 years from manufacturing date (when stored as directed)

10. STABILITY AND REACTIVITY

GENERAL INFORMATION	Corrosive Liquid.
CHEMICAL STABILITY	The substance is stable under normal environmental and foreseeable conditions of temperature and pressure during storage and handling.

CONDITIONS TO AVOID	Avoid contact with foodstuffs. Do not combine part drums of the same product.
MATERIALS TO AVOID	Highly exothermic reaction with strong acids, aluminium, tin, zinc and their alloys, copper, lead, etc, acetic acid, allyl chloride, chlorine trifluoride, chloroform, methylic alcohol, chloronitrotoluene, chlorosulphonic acid, glyoxal, cyanohydrin, hydrochloric acid, hydrofluoric acid, hydroquinone, nitric acid, sulphuric acid and oleum, nitropropane, phosphorous, propiolactone, phosphorous pentoxide, tetrachlorobenzene, tetrahydrofuran, nitromethane and nitroparaffins. Caustic soda solutions may react readily with various reducing sugars (i.e.: fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.
HAZARDOUS DECOMPOSITION PRODUCTS	The packaging material may burn to emit noxious fumes. Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen. When the product decomposes, toxic sodium oxide gases are given off.

11. TOXICOLOGICAL INFORMATION

ORAL	Sodium Hydroxide – LD_{LO} – 500mg/kg (Rabbit 24hr). Causes severe burns. Burns to the mouth, oesophagus, can cause intestinal perforation.
DERMAL	Sodium Hydroxide – LD_{LO} – 500mg/24hr (Rabbit). Causes severe burns. Intense burning and ulcers penetrating the skin.
INHALATION	Causes severe burns. Irritation of the respiratory system.
EYE	Sodium Hydroxide – LD_{LO} – 50mg/24hr (Rabbit) Causes serious eye damage. Can cause ulceration of the conjunctiva and cornea.
CARCINOGENICITY	The substance did not induce mutagenicity in in vitro and in vivo studies (EU RAR, 2007). Systemic carcinogenicity is not expected to occur because the substance is not expected to be systemically available in the body under normal handling and use conditions.
MUTAGENICITY	Both the in vitro and the in vivo genetic toxicity tests indicated no evidence of mutagenic activity. Furthermore, the substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason additional testing is considered unnecessary (EU RAR, 2007).
REPRODUCTIVE	The substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason it can be stated that the substance will not reach the foetus nor reach male and female reproductive organs
TARGET ORGAN	Repeated exposure: Corrosive substance. In addition, the substance is not expected to be systemically available in the body under normal handling and use conditions and therefore systemic effects of the substance after repeated exposure are not expected to occur.
LONG TERM	No information available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY	Sodium Hydroxide	LC_{50} – 45.4mg/L (Onchorhyncus mykiss – 96hr). EC_{50} – 40.38mg/L (Ceriodaphnia dubia – 48hr).

PERSISTENCE / DEGRADABILITY	Readily biodegradable. Other relevant information Abiotic degradation: NaOH is a strong alkaline substance that dissociates completely in water to Na^+ and OH^-. High water solubility and low vapour pressure indicate that NaOH will be found predominantly in aquatic environment. This implies that it will not adsorb on particulate matter or surfaces. Atmospheric emissions as aerosols are rapidly neutralized by carbon dioxide and the salts will be washed out by rain.
MOBILITY	High water solubility and mobility.
ENVIRONMENTAL FATE	Do not allow drainage into sewer, streams or storm water systems.
BIOACCUMULATION POTENTIAL	Sodium Hydroxide does not bioaccumulate in organism. In addition, sodium is a naturally occurring element that is prevalent in the environment and to which organism are exposed regularly for which they have some capacity to regulate the concentration in the organism.
ENVIRONMENTAL IMPACT	No information available.

13. DISPOSAL CONSIDERATIONS

GENERAL INFORMATION	Dispose of in accordance with all local, regional and national regulations. All empty packaging should be disposed of in accordance with local, regional, and national regulations or recycled/reconditioned at an approved facility.
SPECIAL PRECAUTIONS FOR LANDFILL	Containers should be triple rinsed then rinsed with dilute hydrochloric acid to neutralise sodium/potassium hydroxide residues which should be added slowly by trained staff wearing proper protection. Disposal of this product must comply with any requirements of the Resource Management Act for which approval should be sought from the Regional Authority.

14. TRANSPORT INFORMATION

LAND TRANSPORT NEW ZEALAND (NZS5433)
Classified as a Dangerous Good by NZS5433:2012 for transport by Road and Rail

PROPER SHIPPING NAME	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S (contains Sodium hydroxide)
UN NUMBER	3266
CLASS	8 – Corrosive Substances
SUBSIDIARY RISK	No Data Available
PACKAGING GROUP	II
HAZCHEM	2W
EPG	37 Toxic and/or Corrosive Substances Non-Combustible
SPECIAL PROVISIONS	No Data Available

SEA TRANSPORT (IMDG)
Classified as a Dangerous Good by the International Maritime Dangerous Good Code (IMDG) for transport by sea.

PROPER SHIPPING NAME	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S (contains Sodium hydroxide)
UN NUMBER	3266
CLASS	8 – Corrosive Substances
SUBSIDIARY RISK	No Data Available
PACKAGING GROUP	II
HAZCHEM	2W
EMS	F-A, S-B
MARINE POLLUTANT	No Data Available
SPECIAL PROVISIONS	No Data Available

AIR TRANSPORT (IATA)
Classified as a Dangerous Good by the international Air Transport Association (IATA) for transport by air

PROPER SHIPPING NAME	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S (contains Sodium hydroxide)
UN NUMBER	3266
CLASS	8 – Corrosive Substances
SUBSIDIARY RISK	No Data Available
PACKAGING GROUP	II
HAZCHEM	2W
EPG	37 Toxic and/or Corrosive Substances Non-Combustible
SPECIAL PROVISIONS	No Data Available

15. REGULATORY INFORMATION

ENVIRONMENTAL PROTECTION AUTHORITY (NEW ZEALAND)
Hazardous Substances & New Organisms Act 1996

APPROVAL CODE	HSR002526 – Cleaning Products (Corrosive) Group Standard 2006
HSNO CLASSIFICATIONS	6.1D (Oral), 6.1E (Dermal), 8.1A, 8.2B, 8.3A, 9.1D, 9.3C
APPROVED HANDLER	Not Required
NZIOC	Listed

16. OTHER INFORMATION

REVISION NUMBER	1 – New Issue
ISSUE DATE	14th August 2017

In any event the review and if necessary re-issue of an SDS shall be no longer than 5 years after the last date of issue.

KEY/LEGEND		
	AS1336/1337	Industrial Eye Protection – Metric Units (Standards Australia).
	AS1715/1716	Respiratory Protection Devices – Metric Units (Standards Australia).
	AS2161	Industrial Safety Gloves and Mittens (Standards Australia).
	CAS	Chemical Abstracts Service.
	EC_{50}	Concentration which induces a response halfway between the baseline and maximum.
	EMS	IMDG Emergency Schedule.
	EPG	Emergency Procedures Guide.
	GHS	Globally Harmonised System.
	HSNO	Hazardous Substances and New Organisms.
	IMDG	International Maritime Dangerous Goods.
	LC_{50}	Concentration required to kill half the members of a tested population after a specified duration.
	LD_{50}	Dosage required to kill half the members of a tested population after a specified duration.
	LD_{LO}	Lowest dosage required to produce death in a given species under controlled conditions.
	NOEC	No Observed Effect Concentration.
	NZIOC	New Zealand Inventory of Chemicals.
	SDS	Safety Data Sheet.
	UN No.	UN Nations Number.
	WES-Ceiling	Concentration that should not be exceeded at any time during any part of the working day.

REFERENCES

Workplace Exposure Standards-and Biological Exposure Indices – WorkSafe New Zealand.
TOXNET – ChemIDPlus Database.
IMDG Appendix B List of Marine Pollutants.
IMDG Emergency Fire and Spill Codes.
UN Recommendations on the Transport of Dangerous Goods Volume 1 (17th Edition) Part 3.

This SDS has been prepared from current technical data and 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 work place. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact the company.

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 upon request.