



SEEC

Stage 1 Contamination Assessment

**For Proposed Rezoning of Part Lot 4 DP 834254,
510 Beach Road, Berry**

Prepared by:

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SEEC Reference 15000106-CA-01

8th October 2015



SEEC

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Document Certification

This report has been developed based on agreed requirements as understood by SEEC at the time of investigation. It applies only to a specific task on the nominated lands. Other interpretations should not be made, including changes in scale or application to other projects.

Any recommendations contained in this report are based on an honest appraisal of the opportunities and constraints that existed at the site at the time of investigation, subject to the limited scope and resources available. Within the confines of the above statements and to the best of my knowledge, this report does not contain any incomplete or misleading information.

Mark Passfield

Director

SEEC

8th October 2015

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1 Executive Summary

Strategic Environmental and Engineering Consulting (SEEC) have been commissioned by Mr. and Mrs. Hall owners of Lot 4 DP 834254 (**Figure 1**) to prepare this Stage 1 Preliminary Contamination Assessment. It is required to accompany an application to rezone the land to permit residential development.

The site has changed little since at least 1949 as evidenced by a series of historical aerial photographs. It was operated as a dairy farm for many years until more recently when it has been used to graze beef cattle.

The site has an existing homestead and various outbuildings including a garage and two machinery sheds and the former dairy. Next to the western most machinery shed is an above-ground diesel tank below which is located an older underground diesel tank. This area, and the land immediately downslope of it, is identified as potentially contaminated and further investigation is warranted. If hydrocarbons exist in excess of the recommended concentrations this land will need remediation before it can be zoned residential. The entrance of the machinery sheds and, if it were to be removed, the footprint of the existing house should also be investigated further as there could be chemical residue and/or hydrocarbon residue.

The result of this Stage 1 assessment is that although further investigation is warranted, the spatial distribution of any potential contamination is not expected to be large and it is expected any remedial action plan could be successfully implemented. After remediation (if it were required) the land would be validated to ensure it was suitable for residential development. The presence of limited potential contamination does not preclude rezoning.

2 Scope of Work

This assessment is required to accompany an application to rezone part of Lot 4 DP 834254 to permit rural residential development. The aim of this Stage 1 Preliminary Contamination Assessment is to:

- Identify any past and present potentially-contaminating activities;
- Identify potential contamination types;
- Discuss the site condition;
- Provide a preliminary assessment of site contamination; and
- Assess the need for further investigation(s).

This assessment has been undertaken and documented following the requirements set out in:

- *Guidelines for Consultants Reporting on Contaminated Sites* (NSW EPA, 2000);
- *Schedule B2 of NEPM* (2013); and
- *Planning Guidelines- SEPP55 – Remediation of Land*



Figure 1 – Site Locality

3 Site Identification and Zoning

The site is identified as Part of Lot 4 DP 834254, 510 Beach Road, Berry, NSW. It is currently zoned RU1. 56.38 ha of it is proposed for re-zoning.

4 Proposed Development

It is proposed to re-zone the land to Zone R5 to permit its subdivision into (conceptually) 46 rural residential lots of between 0.3 ha and 5 ha. There would be a residual lot (Lot 47) that would be zoned E3 and be dedicated to National Parks.

Two new access roads would connect all lots to Beach Road. A conceptual subdivision plan has been prepared by John M. Daly & Associates Pty Ltd, **Figure 2**.



Figure 2 - Conceptual Subdivision

5 Site Condition and Environment

5.1 Site Inspection

The site was inspected by Mark Passfield (Director) on 5th May 2015. At the same time an interview with the owner's son, Mr. Richard Hall, was undertaken.

5.2 Topography and Drainage

An east-west ridge divides the site into two. Total relief is about 20 m. Side slopes drain both north and southwest at about 10 to 15%. To the southwest lies Coomonderry Swamp – a SEPP14 Wetland. Drainage on the southwest slope is by sheet flow, there are no defined drainage depressions here. Drainage on the north-facing slope is via a broad depression which feeds two existing farm dams. A contour bank also feeds the northernmost of these dams.

Another small dam is located in the far northwest. It is by-passed by the depression which drains just to its east and then along the site boundary with Beach Road. Finally, the depression drains under Beach Road through a culvert. A small portion of the far northeast of the site drains under Beach Road by another culvert, which drains into a dam on a separate property.

5.3 Soils and Geology

According to mapping by The Department of Conservation and Land Management (Hazleton P.A., 1992) the site has three soil landscapes (**Figure 3**):

- The Coolangatta Soil Landscape which occupies most of that part of the site to be developed. This soil landscape is a residual soil landscape derived on the Berry Formation (shale and sandstone);
- The Shoalhaven Soil Landscape which is an alluvial soil landscape and is in the far northwest of the site; and
- The Seven Mile Soil Landscape which is an estuarine soil landscape and is located in the south.

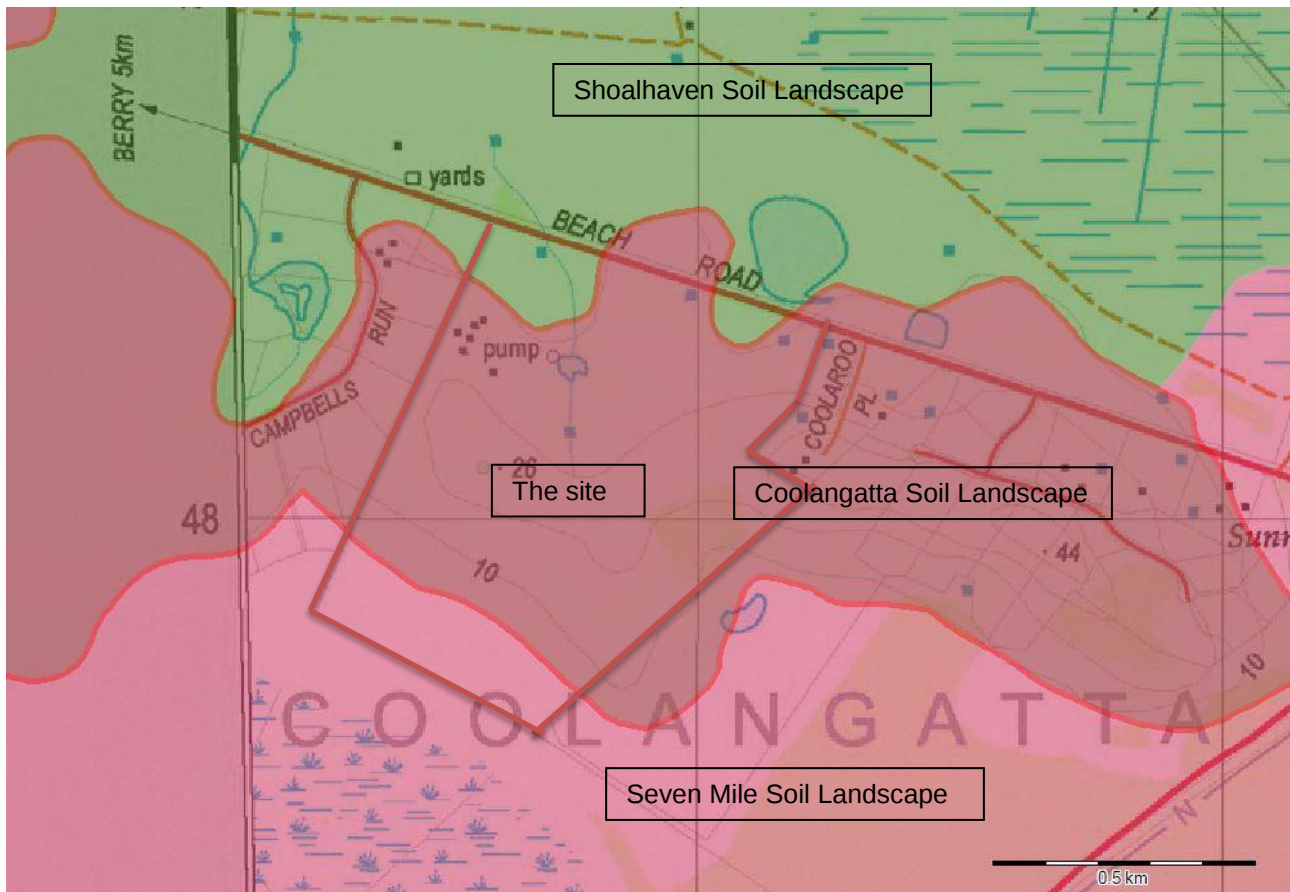


Figure 3 - Soil Landscape Mapping

A site-specific soil investigation was undertaken by SEEC. A series of soil bores were taken where shown in Figure 4. The results of that investigation suggest the extent of the Shoalhaven Soil Landscape in the northwest of the site is smaller than mapped; the Coolangatta Soil Landscape was present in this area too. Lands in the south will not be developed and so were not investigated. All soil cores were taken on the Coolangatta Soil Landscape. The following soil profiles were observed:

Borehole 1:

0-200	Dark brown strongly pedal loam
200-400	Dark brown moderately pedal clay loam, sandy
400-900+	Light brown sandy clay loam with 10% fragments

Borehole 2:

0-150	Dark brown strongly pedal loam, saturated
150-600	Grey, weakly pedal, fine sandy clay loam to light clay
600-800	Mottled grey and orange brown sandy clay loam to light clay
800+	Bedrock (sandstone)

Borehole 3:

0-300	Dark brown strongly pedal loam
300-800	Dark brown moderately pedal clay loam to light clay, sandy
800-1,000	Dark brown moderately pedal clay loam, sandy with fragments
1,000+	Shale

Borehole 4:

0-200	Grey-brown loam
200-500	Brown light clay, moderately pedal
500-900	Mottled grey and orange medium clay, weakly pedal
900+	Shale

Borehole 5

0-100	Grey clay loam, weakly pedal
100-450	Grey mottled orange clay loam, moderately pedal
450-900	Grey mottled orange light to medium clay
900+	Shale

**Figure 4 - Soil Core Locations**

Soils were sent to NSW Department of Lands' Scone Research Laboratory to be tested. Topsoil and subsoil from BH2 and BH3 were composited separately and tested to give an indication of the average results. The results are given in

Table 1. In summary, the boreholes and soil testing showed the soils at this site:

One of the machinery sheds (the western one) has adjacent to it a raised fuel tank containing diesel (**Figure 5**). Under that tank is a disused diesel tank buried in the ground.



Figure 5 – Raised diesel tank. Older, buried, tank is beneath

The machinery sheds and garage all have concrete floors, except for the “car port” adjacent to the western shed (**Figure 6**). Small volumes of oils and fuels have been, and are, kept in the sheds.



Figure 6 – Western Machinery Shed

The dairy is disused and has a concrete floor. The holding yard is also concreted and drains to an open sump. Water was pumped from the sump and released on lands to the east.

The existing home is serviced by a greywater trench just to the east and a blackwater trench located northwest of the house, across the driveway.

6 Site History

6.1 Sources of information

A summary of the site's history has been compiled below. This information has been sourced from:

- Historical aerial photography sourced from the NSW Government: *Land and Property Information* (A division of the Department of Finance and Services).
- Land title searches on NSW Government: *Land and Property Information* (A division of the Department of Finance and Services).
- Recent (2006 and 2011) aerial photography available from Google Earth.
- Discussion with the son of the owner (Mr. Richard Hall).

6.2 Section 149 Certificate

The current Section 149 certificate describes the site as not significantly contaminated.

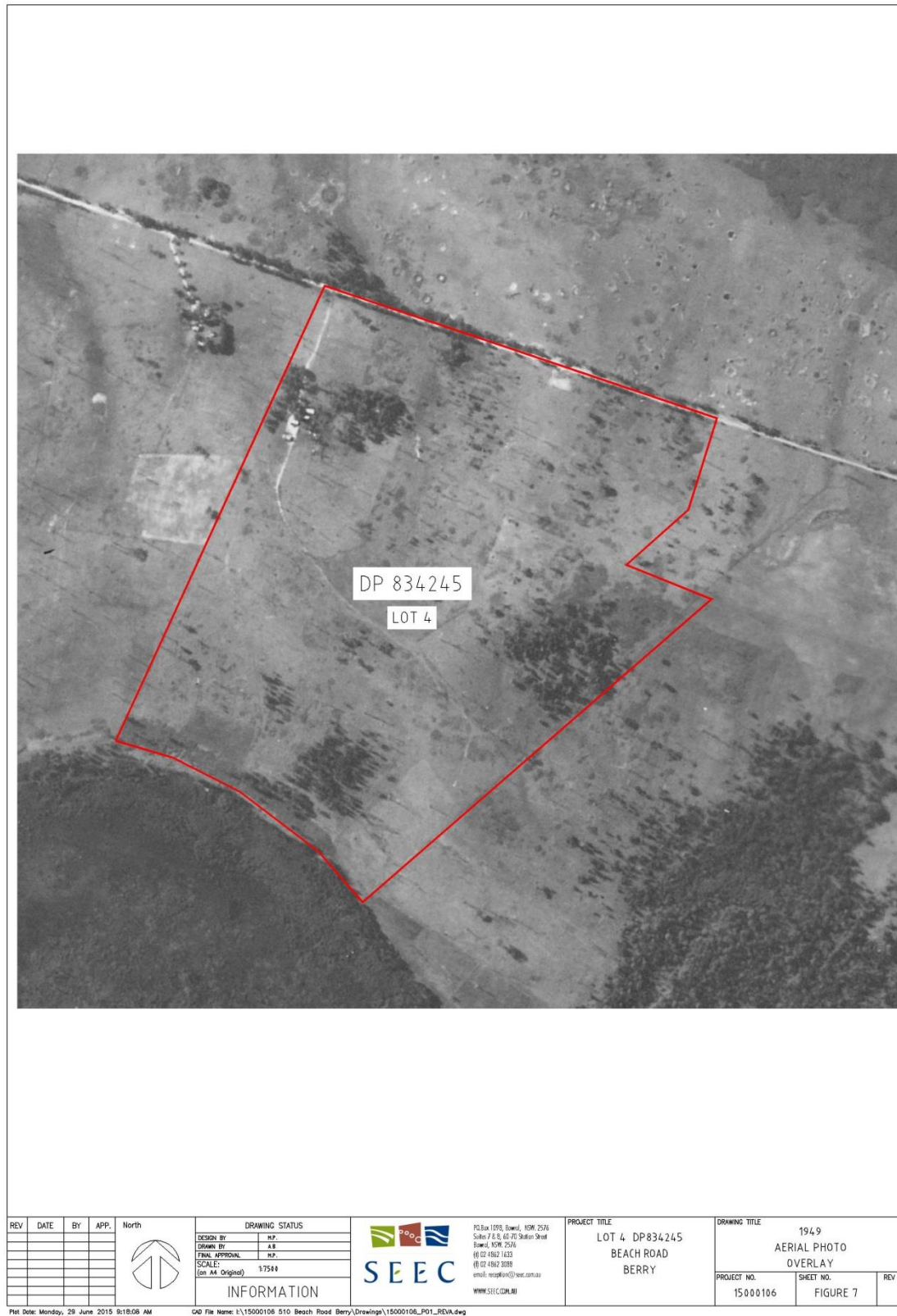
6.3 Land Title Searches

The site was originally part of a crown grant in 1953. Mr. James Hall owned one quarter of the property with his immediate relatives in 1958. The same family formed Greenhills Pty Ltd who owned the property in 1974. In 1978 it was returned to Mr. James Hall and Mrs. Enid Hall who have owned it since. The farm has essentially stayed in the same family ownership since 1958.

6.4 Aerial Photography

Figures 7 to 12 contain extracts from aerial photographs taken in 1949, 1961, 1974, 1984, 1993 and 2000. These photographs were supplied by the NSW Government: *Land and Property Information* (a division of the Department of Finance and Services). Figures 13 and 14 are more recent images from Google Earth.

Inspection of these photographs reveals there has been little, if any, change to the land over the entire period. The homestead and some of its outbuildings are seen in 1949 with some additional outbuildings built by 1961, including the one associated with two diesel tanks (Section 5.5). Since 1961 the buildings appear to have remained essentially unchanged. The agricultural land appears to be unchanged over the entire period investigated.

















6.5 Verbal History

An interview was held on site with Mr. Richard Hall, son of the current owner. His parents, Mr. and Mrs. James Hall moved to the site in about 1960 and, for most of the time, it operated as a dairy farm. Dairying finished in about 1989 and, since that time, the land has been used to graze cattle for beef production. At no stage was the property used for horticultural activities and no chemicals have been used on the pastures. The fuel tanks have been located in their current positions for a number of years. The above-ground tank was installed in about 1995. Mr. Richard Hall thinks it likely that the home was treated for white ants in the past.

Mrs. Enid Hall was also asked about disinfection/cleaning practices at the former dairy. This was achieved by using a product called “Comprox” produced by British Petroleum (BP). The product was used to clean the milking machines. There could have been some runoff onto the holding yard.

6.6 Adjacent Land Uses

Until approximately 2002 the surrounding lands to the west and east were similar agricultural properties to the site (e.g. Figures 7 to 12). Between 2000 and 2005 lands to the west were rezoned to RU5 and subdivided into rural residential properties, as were lands adjacent to the north east part of the site. Lands south of the site are Coomonderry Swamp, which is a SEPP 14 wetland and lands to the north (across beach Road) are part of a sand quarry site. There are no past or present adjoining land uses that were, or are, potentially contaminating.

7 Contamination Assessment

7.1 Assessment of the Data

The current owners have owned the land for over 50 years during which time the site has not changed significantly. Aerial photographs show the site was in a similar condition before the occupation by the current owners and it has not changed significantly since then. Given the long, single, occupancy there can be a strong reliability placed on the verbal information supplied.

7.2 Site Characterisation, Risk Assessment

7.2.1 Majority of Site

The majority of the site has remained pasture and so the risk of potential contamination over the majority of it is very low.

7.2.2 The Dairy

Comprox detergent was used at the dairy to clean the milking machines. The technical data sheet and Material Safety Data Sheet for *Comprox* are given in Appendix 1. According to the Technical Data Sheet:

Comprox Degreaser is a blend of synthetic wetting agents and water soluble solvents specifically designed for removal of oil and grease from engines and machinery used in heavy industrial applications. It can also be used on hard surfaces found in garages, workshops and driveways. Comprox Degreaser offers a safe alternative to degreasing hot engine surfaces where traditional solvent based degreasers can create fire risks. Oil and grease can be easily removed when flushed away with water. Comprox Degreaser will not add to the hydrocarbon loading placed on the environment. It is:

- Biodegradable.
- Solvent free
- Phosphate free
- Free rinsing
- Non flammable

According to the Material Safety Data Sheet:

- The product ingredients are:
 - 5-10% Ethanol
 - 5-10% Benzenesulfonic acid, C10-13-alkyl derivs., compds. with triethanolamine.
 - 0-0.1% Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one
 - Other non-hazardous substances to make 100%
- The biodegradability has not been determined
- There is no exposure standard allocated

- There is no biological limit allocated
- The product is water-based and water soluble
- No hazardous reactions are identified
- The product decomposes to yield
 - carbon dioxide
 - carbon monoxide
 - nitrogen oxides
 - sulfur oxides
- There are no carcinogenic effects
- There are no mutagenic effects
- The product is not classified as environmentally hazardous.

The data sheet says the product *is* biodegradable and does not leave hydrocarbon residue. According to NOTOX Safety and Environmental Research B.V. (2004) Benzenesulfonic acid is biodegradable and triethanolamine is commonly used in cosmetics. Given this information, and the fact that dairy has not been used since 1989, the risk of residual amounts of the detergent being present in soils near the dairy is very low.

7.2.3 Lands near the Homestead

There are some localised lands near the homestead that could be contaminated by past practices. These are:

- The area surrounding and downslope of the two diesel tanks. This area is likely to be contaminated with diesel fuel, either as a result of spillage or leakage. The contamination could have plumed downslope and could be contained in the subsoil.
- The footprint of the homestead. This area is likely to have been treated for white ants and so could have residual organochlorine pesticides in the near-surface soil.
- The areas located immediately outside of the entrances to the machinery sheds. These areas could be contaminated by fuel or chemical spills from within the sheds. Chemical use on the farm has, however, been minimal.

7.3 Recommendations and Conclusion

Further soil investigation (a Stage 2 Assessment) is required at the locations identified in Section 7.2.3 to determine the level and extent of any potential contamination. The investigation must be carried out by a qualified consultant with access to suitable sampling/measuring equipment and soil testing must be carried out by a NATA registered laboratory.

However, although further investigation is warranted, the spatial distribution of any potential contamination is not expected to be large and it is expected a remedial action plan could be successfully implemented. After remediation (if it were required) the land would be validated to ensure it was suitable for residential development. The presence of possible contamination in the localised areas identified does not preclude rezoning.

8 References

EPA (1998). *Planning Guidelines SEPP-55- Remediation of Land*. Dept. Urban Affairs and Planning

NEPM (2013). *National Environment Protection (Assessment of Site Contamination) Measure*, amended 2013, Office of Parliamentary Counsel, Canberra.

NOTOX Safety and Environmental Research B.V. (2004). *HPV Assessment Report on Benzenesulphonic acid*.

NSW Environment Protection Agency (EPA) (2000). *Guidelines for Consultants Reporting on Contaminated Sites*, NSW Environment Protection Agency, Sydney.

9 Appendices

9.1 Appendix 1 – Comprex Technical Data Sheet and Material Safety Data Sheet



Comprox Degreaser

Water Based Industrial Degreaser

Product Data

Description

Comprox Degreaser is a blend of synthetic wetting agents and water soluble solvents specifically designed for removal of oil and grease from engines and machinery used in heavy industrial applications. It can also be used on hard surfaces found in garages, workshops and driveways. Comprox Degreaser offers a safe alternative to degreasing hot engine surfaces where traditional solvent based degreasers can create fire risks. Oil and grease can be easily removed when flushed away with water. Comprox Degreaser will not add to the hydrocarbon loading placed on the environment.

Applications

Comprox Degreaser is ideally suited to remove dirt and grim in environments where only a water-based product can be used.

Comprox Degreaser is low odour and can be used underground and in confined spaces. It has Quick Break properties to assist in waste water disposal via appropriate waste separation equipment.

Comprox Degreaser can be used neat when soaking parts or diluted through a pressure washer or a foamer when cleaning vehicles or equipment. It is suitable for hard, soft and salt-water environments.

Benefits

- Biodegradable.
- Solvent free
- Effective in hard or soft water
- Phosphate free
- Industrial strength
- Free rinsing
- Non flammable



Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

Health & Safety Recommendations

Health, safety and environmental information is provided for this product in the Materials Safety Data Sheet, which can be obtained by contacting the BP Lubricants and Fuels Technical Helpline on 1300 139 700, BP Australia or its subsidiaries. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products. BP Australia will not accept liability if the product is used other than in the manner or with the precautions or for the purpose/s specified. Before the product is used other than as directed, advice should be obtained from the local BP office or BP Lubricants and Fuels Technical Helpline 1300 139 700.

Typical characteristics

Test	Method	Unit	Typical Value
Density @ 15 °C	ASTM D1298	Kg/L	1.08
Appearance	Visual		Red/Pink
pH (undiluted)			11

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

Comprox_Degreaser_462025_2011_07.doc replaces 200811

All reasonable care has been taken to ensure that the information contained in this publication is accurate as of the date of printing. However, such information may, nevertheless, be affected by changes in the blend formulation occurring subsequent to the date of printing. No warranty or representation, expressed or implied, is made as to the accuracy or completeness of the data and information contained in this publication. It is the User's obligation to evaluate and use products safely and within the scope advised in the data sheet and to comply with all applicable laws and regulations. No statement made in this publication shall be construed as a permission, recommendation or authorisation given or implied to practice any patented invention without a valid licence. The Seller shall not be responsible for any loss or damage resulting from any hazards or risks identified in the data sheet and which are associated with petroleum products concerned (provided that this disclaimer shall not affect any statutory rights of the Buyer of the petroleum products concerned).

BP Australia Pty Ltd
ABN 53 004 085 616
Lubes & Fuels Tech Helpline: 1300 139 700
Fax (Australia): 03 9268 4394

www.bp.com



1. Identification of the material and supplier

Product name	Comprox Multi-Purpose Detergent
SDS no.	462028
Product use	Cleaner. Water-based. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Supplier	BP Australia Pty Ltd (ABN 53 004 085 616) 717 Bourke Street Docklands VIC 3008 Australia Tel: +61 (03) 9268 4111 Fax: +61 (03) 9268 3321
EMERGENCY TELEPHONE NUMBER	+61 29032 0460 (or 1800 14 14 74 within Australia)
Product code	462028-AU18

2. Hazards identification

Statement of hazardous/dangerous nature	HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.
Risk phrases	R36- Irritating to eyes. R43- May cause sensitisation by skin contact.
Safety phrases	S24- Avoid contact with skin. S37- Wear suitable gloves.

3. Composition/information on ingredients

Ingredient name	CAS no.	%
ethanol, 2,2'-iminobis-, n-coco alkyl derivs.	61791-31-9	5 - 10
Benzenesulfonic acid, C10-13-alkyl derivs., compds. with triethanolamine	68411-31-4	5 - 10
Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	0 - 0.1
Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.		

4. First-aid measures

Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin contact	Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. Get medical attention if symptoms appear.
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.
Advice to doctor	Treatment should in general be symptomatic and directed to relieving any effects.

5. Fire-fighting measures

Extinguishing media	
Suitable	In case of fire, use water fog, foam, dry chemical or carbon dioxide extinguisher or spray.
Not suitable	Do not use water jet.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
Unusual fire/explosion hazards	This material is not explosive as defined by established regulatory criteria.

Special fire-fighting procedures	None identified.
Protection of fire-fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

6 . Accidental release measures

Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Large spill	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7 . Handling and storage

Handling	Do not get on skin or clothing. Avoid contact with eyes. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

Occupational exposure limits	No exposure standard allocated.
Biological Limit Values	No biological limit allocated.
Exposure controls	
Occupational exposure controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
Personal protective equipment	
Respiratory protection	Avoid breathing of vapours, mists or spray. Select and use respirators in accordance with AS/NZS 1715/1716. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist (Type P1) filters. Filter capacity and respirator type depends on exposure level.
Skin and body	Do not get on skin or clothing. Wear suitable protective clothing.
Hand protection	Wear protective gloves if prolonged or repeated contact is likely. Chemical-resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.
Eye protection	Avoid contact with eyes. Chemical splash goggles.

9 . Physical and chemical properties

Physical state	Liquid.
Colour	Amber. [Light]
Odour	Mild [Slight]
Vapour pressure	Not available.
Vapour density	Not available.
pH	8.5 [Conc. (% w/w): 100%]
Boiling point / range	Not available.
Melting point / range	Not available.
Relative density/Specific gravity	Not available.
Density	1000 kg/m ³ (1 g/cm ³) at 15°C
Solubility	Soluble in water.

10 . Stability and reactivity

Stability	The product is stable.
Conditions to avoid	Avoid extreme temperatures, strong oxidizers, fire.
Incompatibility with various substances/Hazardous Reactions	No hazardous reactions identified.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides

11 . Toxicological information

Effects and symptoms	
Eyes	Causes eye irritation.
Skin	May cause severe allergic skin reaction
Inhalation	No significant health hazards identified.
Ingestion	No significant health hazards identified.
Chronic toxicity	
Carcinogenic effects	No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC), the European Commission (EC), or the National Occupational Health and Safety Commission (Australia).
Mutagenic effects	No known significant effects or critical hazards.

12 . Ecological information

Ecotoxicity	Not classified as environmentally hazardous in accordance with the 'Approved Criteria for Classifying Hazardous Substances' [NOHSC (1008)/2004 as amended and adapted].
Biodegradability	
Persistence/degradability	The biodegradability of this material has not been determined.

13 . Disposal considerations

Disposal considerations / Waste information	The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Special Precautions for Landfill or Incineration	No additional special precautions identified.

14 . Transport information

International transport regulations	Not classified as dangerous for transport (ADG, IMDG, ICAO/IATA).
Special precautions for user	No known special precautions required. See Section: "Handling and storage" for additional information.

15 . Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons

Not regulated.

Control of Scheduled Carcinogenic Substances

Ingredient name

No Listed Substance

Schedule

Australia Regulations

Labelling requirements for SUSDP do not apply to a poison that is packed and sold solely for industrial, laboratory or manufacturing use. However, this product is labelled in accordance with NOSHC National Code of Practice for labelling of workplace substances.

Other regulations

REACH Status

For the REACH status of this product please consult your company contact, as identified in Section 1.

United States inventory (TSCA 8b)

Not determined.

Australia inventory (AICS)

All components are listed or exempted.

Canada inventory

Not determined.

China inventory (IECSC)	Not determined.
Japan inventory (ENCS)	At least one component is not listed.
Korea inventory (KECI)	Not determined.
Philippines inventory (PICCS)	Not determined.

16 . Other information

Key to abbreviations

AMP = Acceptable Maximum Peak
ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards.
ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail
ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail
CAS Number = Chemical Abstracts Service Registry Number
HAZCHEM Code = Emergency action code of numbers and letters which gives information to emergency services. Its use is required by the ADG Code for Dangerous Goods in bulk.
ICAO = International Civil Aviation Organization.
IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air.
IMDG = International Maritime Organization Rules, rules governing shipment of goods by water.
IP 346 = A chemical screening assay for dermal toxicity. The European Commission has recommended that Method IP 346 be used as the basis for labelling certain lubricant oil base stocks for carcinogenicity. The EU Commission has stipulated that the classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. (See Note L, European Commission Directive 67/548/EEC as amended and adapted.) DMSO is a solvent.
NOHSC = National Occupational Health & Safety Commission, Australia
TWA = Time weighted average
STEL = Short term exposure limit
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.

History

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Prepared by	Product Stewardship

Notice to reader

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