

# CC ECOFORCE MULTIPURPOSE CLEANER CONCENTRATE

ChemWatch Material Safety Data Sheet  
For Workplace - Small Volume Use Only.  
Issue Date: Thu 3-Jun-2004

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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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### PRODUCT NAME

CC ECOFORCE MULTIPURPOSE CLEANER CONCENTRATE

### SYNONYMS

### PRODUCT USE

Hard surface cleaner concentrate.

### SUPPLIER

Company: CC Products Pty Ltd

Address:

30-32 Boileau St  
Keysborough  
VIC 3173  
Australia

Telephone: (03) 9701 6055

Fax: (03) 9701 5474

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## Section 2 - HAZARDS IDENTIFICATION

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### STATEMENT OF HAZARDOUS NATURE

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

According to the Criteria of NOHSC, and the ADG Code.

### POISONS SCHEDULE

None

### RISK

May produce discomfort of the eyes and skin\*.

\* (limited evidence)

### SAFETY

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

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## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
anionic surfactants		1-10
non-ionic surfactants		1-10
phosphate salts		<10
alcohol		<5
ethylene glycol monobutyl ether	111-76-2	<1
coconut diethanolamide	68603-42-9	<1
diethylene glycol monobutyl ether	112-34-5	<1
additives nonhazardous		<1
water	7732-18-5	>60

## Section 4 - FIRST AID MEASURES

### SWALLOWED

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

### EYE

- If this product comes in contact with the eyes:
- Wash out immediately with fresh 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.
  - If pain persists or recurs seek medical attention.
  - 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 fumes or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

### NOTES TO PHYSICIAN

Treat symptomatically.

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## Section 5 - FIRE FIGHTING MEASURES

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### EXTINGUISHING MEDIA

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

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

### FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered to be a significant fire risk.
- Expansion or decomposition on heating may lead to violent rupture of containers.
- Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.

Decomposition may produce toxic fumes of  
carbon dioxide (CO<sub>2</sub>)  
nitrogen oxides (NO<sub>x</sub>)  
phosphorus oxides (PO<sub>x</sub>)  
sulfur oxides (SO<sub>x</sub>)  
other pyrolysis products typical of burning organic material  
May emit poisonous fumes.

### FIRE INCOMPATIBILITY

None known.

### HAZCHEM

None

### Personal Protective Equipment

Glasses:  
Safety Glasses.  
Chemical goggles.

Gloves:  
1.BUTYL 2.NEOPRENE 3.PVA

Respirator:  
Type AK-P Filter of sufficient capacity

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### EMERGENCY PROCEDURES

#### MINOR SPILLS

Slippery when spilt.

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable labelled container for waste disposal.

**Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

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## Section 7 - HANDLING AND STORAGE

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### PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- 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.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

#### SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer
- Check all containers are clearly labelled and free from leaks.

#### STORAGE INCOMPATIBILITY

None known

#### 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.

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## Section 7 - HANDLING AND STORAGE ...

- Observe manufacturer's storing and handling recommendations.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

#### ODOUR SAFETY FACTOR (OSF)

OSF=1.7 (coconut diethanolamide)

Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV-TWA for example) is being reached, even when distracted by working activities
B	26-550	As "A" for 50-90% of persons being distracted
C	1-26	As "A" for less than 50% of persons being distracted
D	0.18-1	10-50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As "D" for less than 10% of persons aware of being tested

#### EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of vapour components/concentrations:

Composite Exposure Standard for Mixture (TWA) (mg/m<sup>3</sup>): 200 mg/m<sup>3</sup>

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m<sup>3</sup> Mixture Conc: (%)

Component	Breathing zone (ppm)	Breathing Zone (mg/m <sup>3</sup> )	Mixture Conc (%)
ethylene glycol monobutyl ether		100.0000	1.0
diethylene glycol monobutyl ether	15.50	100.0000	1.0

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

At the "Composite Exposure Standard for Mixture" (TWA) (mg/m<sup>3</sup>): 1 mg/m<sup>3</sup>

### REPRODUCTIVE HEALTH GUIDELINES

Established occupational exposure limits frequently do not take into consideration reproductive end points that are clearly below the thresholds for other toxic effects. Occupational reproductive guidelines (ORGs) have been suggested as an additional standard. These have been established after a literature search for reproductive no-observed-adverse effect-level (NOAEL) and the lowest-observed-adverse-effect-level (LOAEL). In addition the US EPA's procedures for risk assessment for hazard identification and dose-response assessment as applied by NIOSH were used in the creation of such limits.

Ingredient	ORG	UF	Endpoint	CR	TLV Adeq
ethylene glycol mono	3.6 mg/m <sup>3</sup>	100	D	NA	-

These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits. ORGS represent an 8-hour time-weighted average unless specified otherwise.

CR = Cancer Risk/10000; UF = Uncertainty factor:

TLV believed to be adequate to protect reproductive health:

LOD: Limit of detection

Toxic endpoints have also been identified as:

D = Developmental; R = Reproductive; TC = Transplacental carcinogen

Jankovic J., Drake F.: A Screening Method for Occupational Reproductive  
American Industrial Hygiene Association Journal 57: 641-649 (1996)

### INGREDIENT DATA

#### ETHYLENE GLYCOL MONOBUTYL ETHER:

TLV TWA: 20 ppm A3 [ACGIH]

PEL TWA: 50 ppm, 240 mg/m<sup>3</sup> (SKIN) [OSHA Z1]

TLV TWA: 20 ppm A3

CAUTION: This substance has been classified by the ACGIH as A3 Animal Carcinogen (at relatively high doses)

ES TWA: 25 ppm, 121 mg/m<sup>3</sup> (skin) Under review

OES TWA: 25 ppm, 123 mg/m<sup>3</sup> (skin)

Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.

MAK value: 20 ppm, 98 mg/m<sup>3</sup>

Designated H in List of MAK values: Danger of cutaneous absorption.

Absorption of such substances through the skin can pose an incomparably larger danger of toxicity than their inhalation. To avoid health risks when handling such substances, meticulous cleaning of the skin, hair and clothing is imperative.

MAK Category II Peak Limitation: For substances with systemic effects and with a

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

half-life in humans of less than two hours.

Allows excursions of 2 times the MAK value, for 30 minutes (on average), four times per shift.

MAK Group C: There is no reason to fear risk of damage to the developing embryo when MAK and BAT values are observed.

MAK values, and categories and groups are those recommended within the Federal Republic of Germany

Odour Threshold Value: 0.10 ppm (detection), 0.35 ppm (recognition)

IDLH Level: 700 ppm

Although rats appear to be more susceptible than other animals anaemia is not uncommon amongst humans following exposure. The TLV reflects the need to maintain exposures below levels found to cause blood changes in experimental animals. It is concluded that this limit will reduce the significant risk of irritation, haematologic effects and other systemic effects observed in humans and animals exposed to higher vapour concentrations. The toxic effects typical of some other glycol ethers (pancytopenia, testis atrophy and teratogenic effects) are not found with this substance.

### COCONUT DIETHANOLAMIDE:

No exposure limits set by NOHSC or ACGIH

### DIETHYLENE GLYCOL MONOBUTYL ETHER:

No exposure limits set by NOHSC or ACGIH

CEL TWA: 15.5 ppm, 100 mg/m<sup>3</sup>

MAK value: 100 mg/m<sup>3</sup>

In studies involving the inhalation toxicity of diethylene glycol monobutyl ether, exposure for 6 hours daily at 100 mg/m<sup>3</sup> had no effect.

This concentration is in the range of the saturated vapour concentration.

Local damage was produced following inhalation of concentrations higher than the saturated vapour concentrations, that is, during inhalation of the aerosol (350 mg/m<sup>3</sup>). Since the only potential effects of inhalation are restricted to local discomfort (in the aerosol concentration range) the substance is classified in category I for the limitation of exposure peaks.

Teratogenicity studies have not revealed prenatal toxic effects at high oral doses and this ether is classified in pregnancy risk group C.

MAK Category I Peak Limitation: For local irritants Allows excursions of twice the MAK value for 5 minutes at a time, 8 times per shift.

MAK Group C: There is no reason to fear risk of damage to the developing embryo when MAK and BAT values are observed.

MAK values, and categories and groups are those recommended within the Federal Republic of Germany

### WATER:

No exposure limits set by NOHSC or ACGIH

## PERSONAL PROTECTION

### EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

lenses concentrate them.

### HANDS/FEET

Wear chemical protective gloves, eg. PVC.  
Wear safety footwear or safety gumboots, eg. Rubber

### OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

### GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:  
"Forsberg Clothing Performance Index".  
The effect(s) of the following substance(s) are taken into account in the  
computer-generated selection:  
Substance

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water	
ethylene glycol monobutyl ether	
BUTYL	A
NEOPRENE	A
PVA	C
NATURAL RUBBER	C

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove,  
a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis,  
factors such as "feel" or convenience (e.g. disposability), may dictate a choice  
of gloves which might otherwise be unsuitable following long-term or frequent  
use. A qualified practitioner should be consulted.

### RESPIRATOR

Respiratory protection is required when ANY "Worst Case" vapour-phase  
concentration is exceeded (see Computer Prediction in "Exposure Standards").

Protection Factor (Min)	Half-Face Respirator	Full-Face Respirator
10 x ES	AK-AUS AK-PAPR-AUS	- -
50 x ES	- -	AK-AUS AK-PAPR-AUS
100 x ES	- -	AK-2 AK-PAPR-2

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

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^ - Full-face

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

## ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE

Clear yellow liquid with floral/lemon fragrance; mixes with water.  
Mildly alkaline.

### PHYSICAL PROPERTIES

Liquid.  
Mixes with water.

Molecular Weight: Not Applicable  
Melting Range (°C): 0 approx.  
Solubility in water (g/L): Miscible  
pH (1% solution): Not Available  
Volatile Component (%vol): Not Available  
Relative Vapour Density (air=1): Not Available  
Lower Explosive Limit (%): Not Applicable  
Autoignition Temp (°C): Not Available  
State: Liquid

Boiling Range (°C): 100 approx.  
Specific Gravity (water=1): 1.07  
pH (as supplied): 11.0-11.5  
Vapour Pressure (kPa): Not Available  
Evaporation Rate: Not Available  
Flash Point (°C): Not Applicable  
Upper Explosive Limit (%): Not Applicable  
Decomposition Temp (°C): Not Available

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## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

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### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

continued...

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## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

##### SWALLOWED

Ingestion may result in nausea, abdominal irritation, pain and vomiting

##### EYE

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

##### SKIN

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

##### INHALED

Not normally a hazard due to non-volatile nature of product  
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

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.

### CC EcoForce Multipurpose Cleaner Concentrate

Not available. Refer to individual constituents.  
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

#### ETHYLENE GLYCOL MONOBUTYL ETHER:

##### IRRITATION

Skin (rabbit): 500 mg, open; mild  
Eye (rabbit): 100 mg/24h-moderate  
Eye (rabbit): 100 mg SEVERE

##### TOXICITY

Oral (rat) LD50: 470 mg/kg  
Dermal (rabbit) LD50: 220 mg/kg  
Inhalation (human) TCLo: 100 ppm  
Inhalation (human) TCLo: 195 ppm/8h  
Inhalation (rat-male) LC50: 486 ppm \*  
Inhalation (rat-female) LC50: 450 ppm \*  
NOTE: Changes in kidney, liver, spleen and lungs  
are observed in animals

\* [Union Carbide]

exposed to high concentrations of this substance by all routes.

#### COCONUT DIETHANOLAMIDE:

IRRITATION TOXICITY

continued...

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## Section 11 - TOXICOLOGICAL INFORMATION ...

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Nil reported. N,N-bis(2-hydroxyethyl) dodecanamide:  
Oral (rat) LD50: 2700 mg/kg

DIETHYLENE GLYCOL MONOBUTYL ETHER:  
TOXICITY IRRITATION  
Oral (rat) LD50: 5660 mg/kg Eye (rabbit): 5 mg - SEVERE  
Dermal (rabbit) LD50: 4120 mg/kg Eye (rabbit): 20 mg/24h moderate

WATER:  
No significant acute toxicological data identified in literature search.

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## Section 12 - ECOLOGICAL INFORMATION

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DO NOT discharge into sewer or waterways.

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## Section 13 - DISPOSAL CONSIDERATIONS

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- Recycle wherever possible or 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.

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## Section 14 - TRANSPORTATION INFORMATION

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Shipping Name:  
None  
Dangerous Goods Class: None  
UN/NA Number: None  
ADR Number:  
Packing Group: None  
Labels Required:  
Additional Shipping Information:  
International Transport Regulations:  
IMO: None

## HAZCHEM

None

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## Section 15 - REGULATORY INFORMATION

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## POISONS SCHEDULE

None

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## Section 16 - OTHER INFORMATION

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